

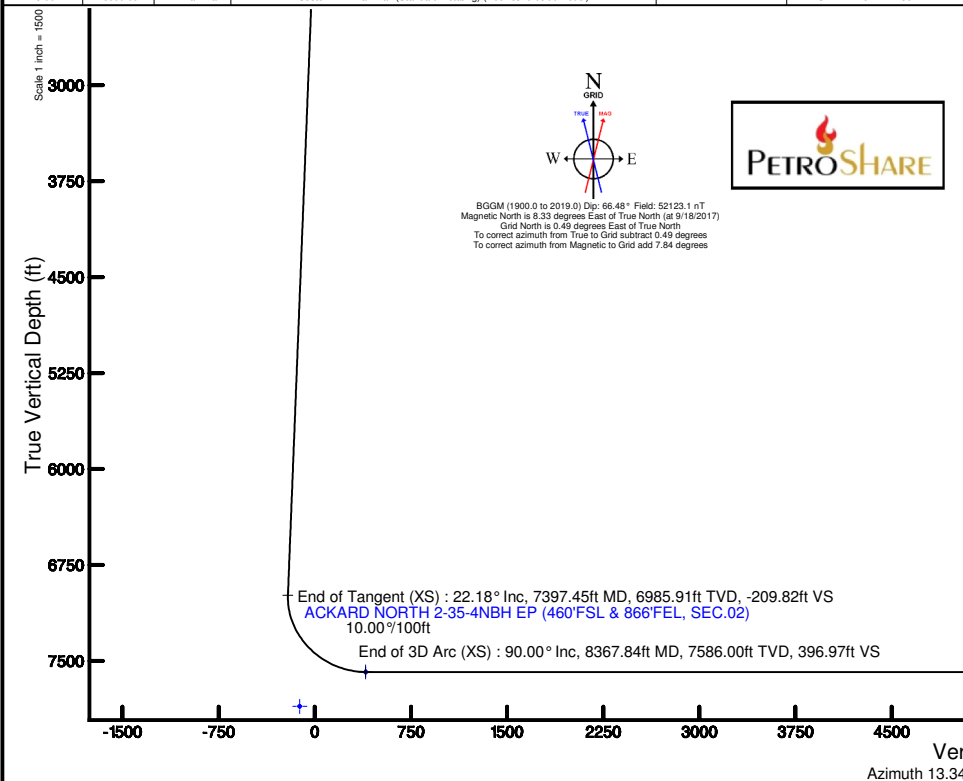
Location:	COLORADO	Slot:	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Field:	ADAMS COUNTY (NAD83/ GRID NORTH)	Well:	ACKARD NORTH 2-35-4NBH
Facility:	SEC.02-T03S-R66W	Wellbore:	ACKARD NORTH 2-35-4NBH

Plot reference wellpath is ACKARD NORTH 2-35-4NBH PWP (REV. A.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (13'KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to RIG (13'KB) (RKB)	North Reference: Grid north
RIG (13'KB) (RKB) to Mean Sea Level: 5213 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#14 ACKARD NORTH 2-35-4NBH (6007'SL & 21307'FWL, SEC.02): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cantriyal on 2017-10-24
	Database: WellArchitectDB

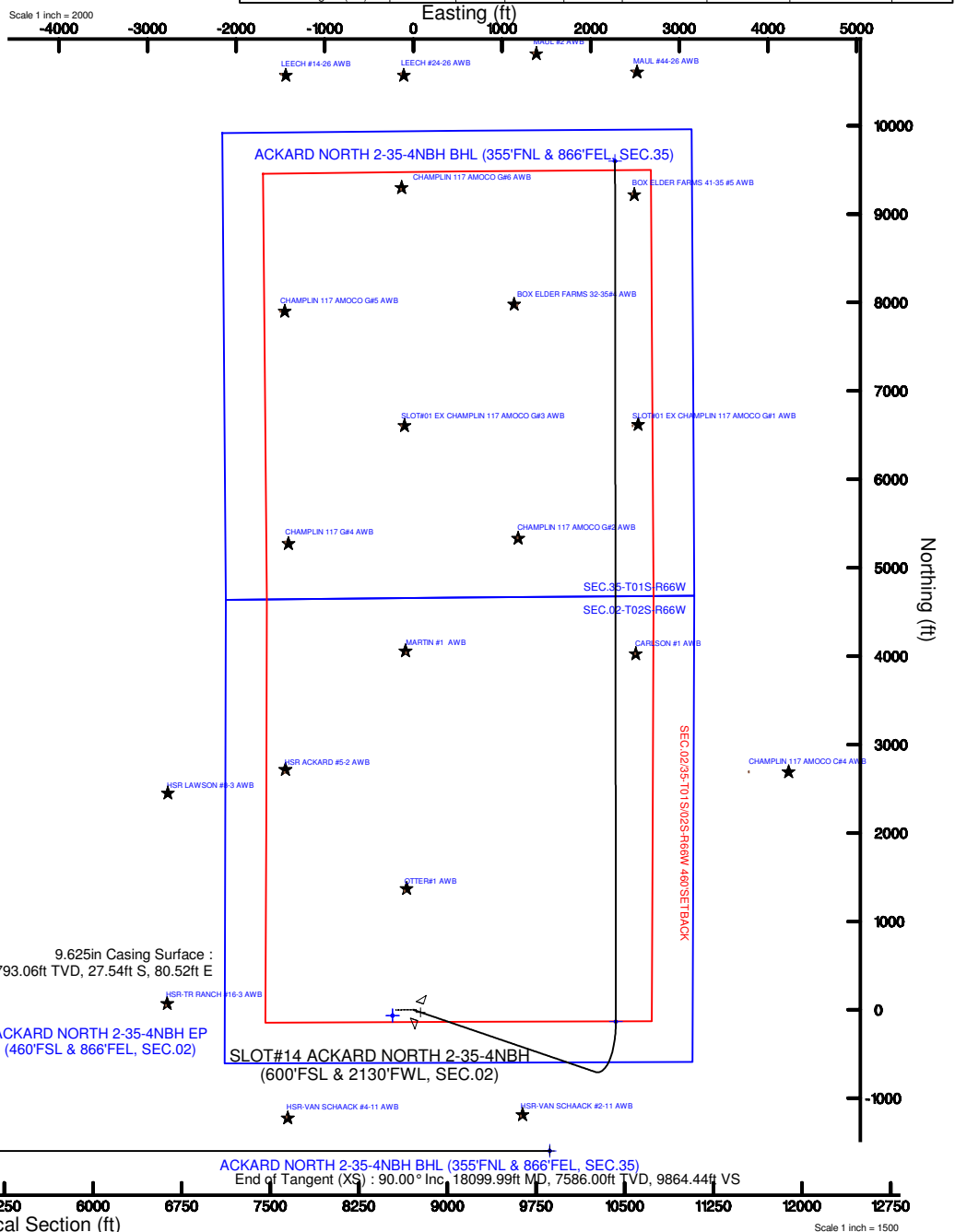
Facility Name			Grid East (US R)	Grid North (US R)	Latitude	Longitude
SEC 02-T03S R66W			3211634.960	1207893.832	39°54'05.673"N	104°44'44.357"W
Slot	Local N (R)	Local E (R)	Grid East (US R)	Grid North (US R)	Latitude	Longitude
SLOT#14 ACKARD NORTH 2-35-4N8H (600FSL & 2130FWL, SEC.02)	0.53	194.94	3211829.896	1207894.366	39°54'05.662"N	104°44'41.856"W
FIG (13FKB) (RKB) to Ground level (At Slot: SLOT#14 ACKARD NORTH 2-35-4N8H (600FSL & 2130FWL, SEC.02))					5213H	
Mean Sea Level to Ground level (At Slot: SLOT#14 ACKARD NORTH 2-35-4N8H (600FSL & 2130FWL, SEC.02))					0H	
FIG (13FKB) (RKB) to Mean Sea Level					5213H	

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	1800.99	1787.00	13.00	1793.06	0.00	0.00	-27.54	80.52	ACKARD NORTH 2-35-4NBH
8.5in Open Hole	1800.00	1809.99	16299.99	1793.06	7586.00	-27.54	80.52	9598.39	2275.52	ACKARD NORTH 2-35-4NBH

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	18099.99	BHI NaviTrak	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NBH



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°100ft)	VS (ft)
Tie On	13.00	0.00	108.883	13.00	0.00	0.00	0.00	0.00
End of Tangent	1100.00	0.00	108.883	1100.00	0.00	0.00	0.00	0.00
End of Build (XS)	2209.17	22.183	108.883	2181.66	-68.63	200.64	2.00	-20.49
End of Tangent (XS)	7397.45	22.183	108.883	6985.91	-702.62	2054.15	0.00	-209.82
End of 3D Arc (XS)	8367.84	90.000	359.944	7586.00	-133.75	2285.04	10.00	396.97
End of Tangent (XS)	18099.99	90.000	359.944	7586.00	9598.39	2275.52	0.00	9864.44





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 1 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect@ 5.0
North Reference	Grid	User	Ingmjiamr
Scale	0.999975	Report Generated	10/20/2017 at 10:23:42 AM
Convergence at slot	0.49° East	Database/Source file	Jamie/ACKARD_NORTH_2-35-4NBH_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	0.53	194.94	3211829.90	1207894.37	39°54'05.662"N	104°44'41.856"W
Facility Reference Pt			3211634.96	1207893.83	39°54'05.673"N	104°44'44.357"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	5213.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5213.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02))	5213.00ft
MD Reference Pt	RIG (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	13.34°



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 2 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 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	108.883	0.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
13.00	0.000	108.883	13.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	Tie On
113.00†	0.000	108.883	113.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
213.00†	0.000	108.883	213.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
313.00†	0.000	108.883	313.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
413.00†	0.000	108.883	413.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
500.00†	0.000	108.883	500.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	Fox Hills
513.00†	0.000	108.883	513.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
613.00†	0.000	108.883	613.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
713.00†	0.000	108.883	713.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
813.00†	0.000	108.883	813.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
913.00†	0.000	108.883	913.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
1013.00†	0.000	108.883	1013.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	
1100.00	0.000	108.883	1100.00	0.00	0.00	0.00	39°54'05.662"N	104°44'41.856"W	0.00	End of Tangent
1113.00†	0.260	108.883	1113.00	0.00	-0.01	0.03	39°54'05.662"N	104°44'41.856"W	2.00	
1213.00†	2.260	108.883	1212.97	-0.22	-0.72	2.11	39°54'05.655"N	104°44'41.829"W	2.00	
1313.00†	4.260	108.883	1312.80	-0.76	-2.56	7.49	39°54'05.636"N	104°44'41.760"W	2.00	
1413.00†	6.260	108.883	1412.38	-1.65	-5.53	16.16	39°54'05.606"N	104°44'41.649"W	2.00	
1513.00†	8.260	108.883	1511.57	-2.87	-9.62	28.12	39°54'05.565"N	104°44'41.496"W	2.00	
1613.00†	10.260	108.883	1610.26	-4.43	-14.83	43.34	39°54'05.512"N	104°44'41.301"W	2.00	
1713.00†	12.260	108.883	1708.33	-6.31	-21.14	61.82	39°54'05.448"N	104°44'41.065"W	2.00	
1813.00†	14.260	108.883	1805.66	-8.53	-28.57	83.52	39°54'05.373"N	104°44'40.788"W	2.00	
1913.00†	16.260	108.883	1902.13	-11.07	-37.09	108.42	39°54'05.286"N	104°44'40.469"W	2.00	
2013.00†	18.260	108.883	1997.62	-13.94	-46.69	136.49	39°54'05.189"N	104°44'40.110"W	2.00	
2113.00†	20.260	108.883	2092.02	-17.13	-57.36	167.70	39°54'05.081"N	104°44'39.711"W	2.00	
2209.17	22.183	108.883	2181.66	-20.49	-68.63	200.64	39°54'04.967"N	104°44'39.289"W	2.00	End of Build (XS)
2213.00†	22.183	108.883	2185.21	-20.63	-69.10	202.01	39°54'04.962"N	104°44'39.272"W	0.00	
2313.00†	22.183	108.883	2277.81	-24.28	-81.32	237.73	39°54'04.838"N	104°44'38.815"W	0.00	
2413.00†	22.183	108.883	2370.41	-27.93	-93.54	273.46	39°54'04.715"N	104°44'38.358"W	0.00	
2513.00†	22.183	108.883	2463.01	-31.58	-105.76	309.18	39°54'04.591"N	104°44'37.901"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 3 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2613.00†	22.183	108.883	2555.60	-35.23	-117.97	344.91	39°54'04.467"N	104°44'37.443"W	0.00	
2713.00†	22.183	108.883	2648.20	-38.88	-130.19	380.63	39°54'04.343"N	104°44'36.986"W	0.00	
2813.00†	22.183	108.883	2740.80	-42.53	-142.41	416.36	39°54'04.220"N	104°44'36.529"W	0.00	
2913.00†	22.183	108.883	2833.40	-46.18	-154.63	452.08	39°54'04.096"N	104°44'36.072"W	0.00	
3013.00†	22.183	108.883	2926.00	-49.83	-166.85	487.81	39°54'03.972"N	104°44'35.615"W	0.00	
3113.00†	22.183	108.883	3018.59	-53.48	-179.07	523.53	39°54'03.848"N	104°44'35.158"W	0.00	
3213.00†	22.183	108.883	3111.19	-57.12	-191.29	559.26	39°54'03.725"N	104°44'34.701"W	0.00	
3313.00†	22.183	108.883	3203.79	-60.77	-203.51	594.98	39°54'03.601"N	104°44'34.244"W	0.00	
3413.00†	22.183	108.883	3296.39	-64.42	-215.73	630.71	39°54'03.477"N	104°44'33.787"W	0.00	
3513.00†	22.183	108.883	3388.99	-68.07	-227.95	666.43	39°54'03.353"N	104°44'33.330"W	0.00	
3613.00†	22.183	108.883	3481.59	-71.72	-240.17	702.16	39°54'03.229"N	104°44'32.873"W	0.00	
3713.00†	22.183	108.883	3574.18	-75.37	-252.39	737.88	39°54'03.106"N	104°44'32.416"W	0.00	
3813.00†	22.183	108.883	3666.78	-79.02	-264.61	773.61	39°54'02.982"N	104°44'31.959"W	0.00	
3913.00†	22.183	108.883	3759.38	-82.67	-276.83	809.33	39°54'02.858"N	104°44'31.502"W	0.00	
4013.00†	22.183	108.883	3851.98	-86.32	-289.05	845.06	39°54'02.734"N	104°44'31.045"W	0.00	
4113.00†	22.183	108.883	3944.58	-89.97	-301.27	880.78	39°54'02.611"N	104°44'30.588"W	0.00	
4213.00†	22.183	108.883	4037.17	-93.62	-313.49	916.51	39°54'02.487"N	104°44'30.131"W	0.00	
4313.00†	22.183	108.883	4129.77	-97.26	-325.71	952.23	39°54'02.363"N	104°44'29.674"W	0.00	
4413.00†	22.183	108.883	4222.37	-100.91	-337.93	987.96	39°54'02.239"N	104°44'29.217"W	0.00	
4513.00†	22.183	108.883	4314.97	-104.56	-350.15	1023.68	39°54'02.116"N	104°44'28.760"W	0.00	
4613.00†	22.183	108.883	4407.57	-108.21	-362.37	1059.41	39°54'01.992"N	104°44'28.303"W	0.00	
4713.00†	22.183	108.883	4500.16	-111.86	-374.59	1095.13	39°54'01.868"N	104°44'27.846"W	0.00	
4813.00†	22.183	108.883	4592.76	-115.51	-386.81	1130.86	39°54'01.744"N	104°44'27.389"W	0.00	
4913.00†	22.183	108.883	4685.36	-119.16	-399.03	1166.58	39°54'01.620"N	104°44'26.932"W	0.00	
5013.00†	22.183	108.883	4777.96	-122.81	-411.25	1202.31	39°54'01.497"N	104°44'26.475"W	0.00	
5113.00†	22.183	108.883	4870.56	-126.46	-423.47	1238.03	39°54'01.373"N	104°44'26.018"W	0.00	
5213.00†	22.183	108.883	4963.15	-130.11	-435.69	1273.76	39°54'01.249"N	104°44'25.561"W	0.00	
5306.79†	22.183	108.883	5050.00	-133.53	-447.15	1307.26	39°54'01.133"N	104°44'25.132"W	0.00	Sussex / Shannon
5313.00†	22.183	108.883	5055.75	-133.75	-447.91	1309.48	39°54'01.125"N	104°44'25.104"W	0.00	
5413.00†	22.183	108.883	5148.35	-137.40	-460.13	1345.21	39°54'01.002"N	104°44'24.647"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 4 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5513.00†	22.183	108.883	5240.95	-141.05	-472.35	1380.93	39°54'00.878"N	104°44'24.190"W	0.00	
5613.00†	22.183	108.883	5333.55	-144.70	-484.56	1416.66	39°54'00.754"N	104°44'23.732"W	0.00	
5713.00†	22.183	108.883	5426.14	-148.35	-496.78	1452.38	39°54'00.630"N	104°44'23.275"W	0.00	
5813.00†	22.183	108.883	5518.74	-152.00	-509.00	1488.11	39°54'00.506"N	104°44'22.818"W	0.00	
5913.00†	22.183	108.883	5611.34	-155.65	-521.22	1523.83	39°54'00.383"N	104°44'22.361"W	0.00	
6013.00†	22.183	108.883	5703.94	-159.30	-533.44	1559.56	39°54'00.259"N	104°44'21.904"W	0.00	
6113.00†	22.183	108.883	5796.54	-162.95	-545.66	1595.28	39°54'00.135"N	104°44'21.447"W	0.00	
6213.00†	22.183	108.883	5889.13	-166.60	-557.88	1631.01	39°54'00.011"N	104°44'20.990"W	0.00	
6313.00†	22.183	108.883	5981.73	-170.25	-570.10	1666.73	39°53'59.887"N	104°44'20.533"W	0.00	
6413.00†	22.183	108.883	6074.33	-173.89	-582.32	1702.46	39°53'59.764"N	104°44'20.076"W	0.00	
6513.00†	22.183	108.883	6166.93	-177.54	-594.54	1738.18	39°53'59.640"N	104°44'19.619"W	0.00	
6613.00†	22.183	108.883	6259.53	-181.19	-606.76	1773.91	39°53'59.516"N	104°44'19.162"W	0.00	
6713.00†	22.183	108.883	6352.13	-184.84	-618.98	1809.63	39°53'59.392"N	104°44'18.705"W	0.00	
6813.00†	22.183	108.883	6444.72	-188.49	-631.20	1845.36	39°53'59.269"N	104°44'18.248"W	0.00	
6913.00†	22.183	108.883	6537.32	-192.14	-643.42	1881.08	39°53'59.145"N	104°44'17.791"W	0.00	
7013.00†	22.183	108.883	6629.92	-195.79	-655.64	1916.81	39°53'59.021"N	104°44'17.334"W	0.00	
7113.00†	22.183	108.883	6722.52	-199.44	-667.86	1952.53	39°53'58.897"N	104°44'16.877"W	0.00	
7213.00†	22.183	108.883	6815.12	-203.09	-680.08	1988.26	39°53'58.773"N	104°44'16.420"W	0.00	
7313.00†	22.183	108.883	6907.71	-206.74	-692.30	2023.98	39°53'58.650"N	104°44'15.963"W	0.00	
7397.45	22.183	108.883	6985.91	-209.82	-702.62	2054.15	39°53'58.545"N	104°44'15.577"W	0.00	End of Tangent (XS)
7413.00†	21.760	104.883	7000.33	-210.18	-704.31	2059.72	39°53'58.528"N	104°44'15.506"W	10.00	
7513.00†	21.547	77.565	7093.51	-202.68	-705.12	2095.66	39°53'58.517"N	104°44'15.045"W	10.00	
7613.00†	25.414	54.208	7185.41	-178.40	-688.57	2131.08	39°53'58.677"N	104°44'14.589"W	10.00	
7713.00†	31.908	38.218	7273.24	-138.10	-655.17	2164.92	39°53'59.004"N	104°44'14.151"W	10.00	
7813.00†	39.756	27.565	7354.33	-82.99	-605.94	2196.15	39°53'59.488"N	104°44'13.745"W	10.00	
7913.00†	48.295	20.045	7426.22	-14.75	-542.36	2223.81	39°54'00.114"N	104°44'13.383"W	10.00	
7924.11†	49.271	19.339	7433.54	-6.44	-534.50	2226.63	39°54'00.192"N	104°44'13.346"W	10.00	Niobrara A Chalk
7956.42†	52.131	17.396	7454.00	18.46	-510.77	2234.50	39°54'00.426"N	104°44'13.242"W	10.00	Niobrara A Marl
8013.00†	57.208	14.331	7486.72	64.55	-466.38	2247.07	39°54'00.863"N	104°44'13.076"W	10.00	
8113.00†	66.332	9.676	7533.99	152.50	-380.29	2265.22	39°54'01.712"N	104°44'12.834"W	10.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 5 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8213.00†	75.577	5.637	7566.60	246.43	-286.72	2277.70	39°54'02.636"N	104°44'12.663"W	10.00	
8313.00†	84.884	1.923	7583.55	343.48	-188.51	2284.15	39°54'03.606"N	104°44'12.569"W	10.00	
8367.84	90.000	359.944	7586.00†	396.97	-133.75	2285.04	39°54'04.147"N	104°44'12.552"W	10.00	End of 3D Arc (XS)
8413.00†	90.000	359.944	7586.00	440.90	-88.59	2284.99	39°54'04.593"N	104°44'12.548"W	0.00	
8513.00†	90.000	359.944	7586.00	538.18	11.41	2284.90	39°54'05.581"N	104°44'12.538"W	0.00	
8613.00†	90.000	359.944	7586.00	635.46	111.41	2284.80	39°54'06.570"N	104°44'12.528"W	0.00	
8713.00†	90.000	359.944	7586.00	732.74	211.41	2284.70	39°54'07.558"N	104°44'12.518"W	0.00	
8813.00†	90.000	359.944	7586.00	830.02	311.41	2284.60	39°54'08.546"N	104°44'12.508"W	0.00	
8913.00†	90.000	359.944	7586.00	927.30	411.41	2284.51	39°54'09.534"N	104°44'12.499"W	0.00	
9013.00†	90.000	359.944	7586.00	1024.58	511.41	2284.41	39°54'10.523"N	104°44'12.489"W	0.00	
9113.00†	90.000	359.944	7586.00	1121.86	611.41	2284.31	39°54'11.511"N	104°44'12.479"W	0.00	
9213.00†	90.000	359.944	7586.00	1219.14	711.41	2284.21	39°54'12.499"N	104°44'12.469"W	0.00	
9313.00†	90.000	359.944	7586.00	1316.42	811.41	2284.11	39°54'13.487"N	104°44'12.459"W	0.00	
9413.00†	90.000	359.944	7586.00	1413.70	911.41	2284.02	39°54'14.475"N	104°44'12.450"W	0.00	
9513.00†	90.000	359.944	7586.00	1510.98	1011.41	2283.92	39°54'15.464"N	104°44'12.440"W	0.00	
9613.00†	90.000	359.944	7586.00	1608.26	1111.41	2283.82	39°54'16.452"N	104°44'12.430"W	0.00	
9713.00†	90.000	359.944	7586.00	1705.54	1211.41	2283.72	39°54'17.440"N	104°44'12.420"W	0.00	
9813.00†	90.000	359.944	7586.00	1802.82	1311.41	2283.63	39°54'18.428"N	104°44'12.411"W	0.00	
9913.00†	90.000	359.944	7586.00	1900.10	1411.41	2283.53	39°54'19.417"N	104°44'12.401"W	0.00	
10013.00†	90.000	359.944	7586.00	1997.38	1511.41	2283.43	39°54'20.405"N	104°44'12.391"W	0.00	
10113.00†	90.000	359.944	7586.00	2094.66	1611.41	2283.33	39°54'21.393"N	104°44'12.381"W	0.00	
10213.00†	90.000	359.944	7586.00	2191.94	1711.41	2283.23	39°54'22.381"N	104°44'12.371"W	0.00	
10313.00†	90.000	359.944	7586.00	2289.22	1811.40	2283.14	39°54'23.369"N	104°44'12.362"W	0.00	
10413.00†	90.000	359.944	7586.00	2386.50	1911.40	2283.04	39°54'24.358"N	104°44'12.352"W	0.00	
10513.00†	90.000	359.944	7586.00	2483.78	2011.40	2282.94	39°54'25.346"N	104°44'12.342"W	0.00	
10613.00†	90.000	359.944	7586.00	2581.06	2111.40	2282.84	39°54'26.334"N	104°44'12.332"W	0.00	
10713.00†	90.000	359.944	7586.00	2678.35	2211.40	2282.75	39°54'27.322"N	104°44'12.322"W	0.00	
10813.00†	90.000	359.944	7586.00	2775.63	2311.40	2282.65	39°54'28.311"N	104°44'12.313"W	0.00	
10913.00†	90.000	359.944	7586.00	2872.91	2411.40	2282.55	39°54'29.299"N	104°44'12.303"W	0.00	
11013.00†	90.000	359.944	7586.00	2970.19	2511.40	2282.45	39°54'30.287"N	104°44'12.293"W	0.00	





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 6 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot		SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well		ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore		ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W			

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11113.00†	90.000	359.944	7586.00	3067.47	2611.40	2282.35	39°54'31.275"N	104°44'12.283"W	0.00	
11213.00†	90.000	359.944	7586.00	3164.75	2711.40	2282.26	39°54'32.263"N	104°44'12.273"W	0.00	
11313.00†	90.000	359.944	7586.00	3262.03	2811.40	2282.16	39°54'33.252"N	104°44'12.264"W	0.00	
11413.00†	90.000	359.944	7586.00	3359.31	2911.40	2282.06	39°54'34.240"N	104°44'12.254"W	0.00	
11513.00†	90.000	359.944	7586.00	3456.59	3011.40	2281.96	39°54'35.228"N	104°44'12.244"W	0.00	
11613.00†	90.000	359.944	7586.00	3553.87	3111.40	2281.87	39°54'36.216"N	104°44'12.234"W	0.00	
11713.00†	90.000	359.944	7586.00	3651.15	3211.40	2281.77	39°54'37.205"N	104°44'12.225"W	0.00	
11813.00†	90.000	359.944	7586.00	3748.43	3311.40	2281.67	39°54'38.193"N	104°44'12.215"W	0.00	
11913.00†	90.000	359.944	7586.00	3845.71	3411.40	2281.57	39°54'39.181"N	104°44'12.205"W	0.00	
12013.00†	90.000	359.944	7586.00	3942.99	3511.40	2281.47	39°54'40.169"N	104°44'12.195"W	0.00	
12113.00†	90.000	359.944	7586.00	4040.27	3611.40	2281.38	39°54'41.157"N	104°44'12.185"W	0.00	
12213.00†	90.000	359.944	7586.00	4137.55	3711.40	2281.28	39°54'42.146"N	104°44'12.176"W	0.00	
12313.00†	90.000	359.944	7586.00	4234.83	3811.40	2281.18	39°54'43.134"N	104°44'12.166"W	0.00	
12413.00†	90.000	359.944	7586.00	4332.11	3911.40	2281.08	39°54'44.122"N	104°44'12.156"W	0.00	
12513.00†	90.000	359.944	7586.00	4429.39	4011.40	2280.99	39°54'45.110"N	104°44'12.146"W	0.00	
12613.00†	90.000	359.944	7586.00	4526.67	4111.40	2280.89	39°54'46.099"N	104°44'12.136"W	0.00	
12713.00†	90.000	359.944	7586.00	4623.95	4211.40	2280.79	39°54'47.087"N	104°44'12.127"W	0.00	
12813.00†	90.000	359.944	7586.00	4721.23	4311.40	2280.69	39°54'48.075"N	104°44'12.117"W	0.00	
12913.00†	90.000	359.944	7586.00	4818.51	4411.40	2280.59	39°54'49.063"N	104°44'12.107"W	0.00	
13013.00†	90.000	359.944	7586.00	4915.79	4511.40	2280.50	39°54'50.051"N	104°44'12.097"W	0.00	
13113.00†	90.000	359.944	7586.00	5013.07	4611.40	2280.40	39°54'51.040"N	104°44'12.087"W	0.00	
13213.00†	90.000	359.944	7586.00	5110.35	4711.40	2280.30	39°54'52.028"N	104°44'12.078"W	0.00	
13313.00†	90.000	359.944	7586.00	5207.63	4811.40	2280.20	39°54'53.016"N	104°44'12.068"W	0.00	
13413.00†	90.000	359.944	7586.00	5304.92	4911.40	2280.11	39°54'54.004"N	104°44'12.058"W	0.00	
13513.00†	90.000	359.944	7586.00	5402.20	5011.40	2280.01	39°54'54.992"N	104°44'12.048"W	0.00	
13613.00†	90.000	359.944	7586.00	5499.48	5111.40	2279.91	39°54'55.981"N	104°44'12.038"W	0.00	
13713.00†	90.000	359.944	7586.00	5596.76	5211.40	2279.81	39°54'56.969"N	104°44'12.029"W	0.00	
13813.00†	90.000	359.944	7586.00	5694.04	5311.40	2279.71	39°54'57.957"N	104°44'12.019"W	0.00	
13913.00†	90.000	359.944	7586.00	5791.32	5411.40	2279.62	39°54'58.945"N	104°44'12.009"W	0.00	
14013.00†	90.000	359.944	7586.00	5888.60	5511.40	2279.52	39°54'59.934"N	104°44'11.999"W	0.00	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 7 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14113.00†	90.000	359.944	7586.00	5985.88	5611.40	2279.42	39°55'00.922"N	104°44'11.990"W	0.00	
14213.00†	90.000	359.944	7586.00	6083.16	5711.40	2279.32	39°55'01.910"N	104°44'11.980"W	0.00	
14313.00†	90.000	359.944	7586.00	6180.44	5811.40	2279.23	39°55'02.898"N	104°44'11.970"W	0.00	
14413.00†	90.000	359.944	7586.00	6277.72	5911.40	2279.13	39°55'03.886"N	104°44'11.960"W	0.00	
14513.00†	90.000	359.944	7586.00	6375.00	6011.40	2279.03	39°55'04.875"N	104°44'11.950"W	0.00	
14613.00†	90.000	359.944	7586.00	6472.28	6111.40	2278.93	39°55'05.863"N	104°44'11.941"W	0.00	
14713.00†	90.000	359.944	7586.00	6569.56	6211.40	2278.83	39°55'06.851"N	104°44'11.931"W	0.00	
14813.00†	90.000	359.944	7586.00	6666.84	6311.40	2278.74	39°55'07.839"N	104°44'11.921"W	0.00	
14913.00†	90.000	359.944	7586.00	6764.12	6411.40	2278.64	39°55'08.828"N	104°44'11.911"W	0.00	
15013.00†	90.000	359.944	7586.00	6861.40	6511.40	2278.54	39°55'09.816"N	104°44'11.901"W	0.00	
15113.00†	90.000	359.944	7586.00	6958.68	6611.40	2278.44	39°55'10.804"N	104°44'11.892"W	0.00	
15213.00†	90.000	359.944	7586.00	7055.96	6711.40	2278.35	39°55'11.792"N	104°44'11.882"W	0.00	
15313.00†	90.000	359.944	7586.00	7153.24	6811.40	2278.25	39°55'12.780"N	104°44'11.872"W	0.00	
15413.00†	90.000	359.944	7586.00	7250.52	6911.40	2278.15	39°55'13.769"N	104°44'11.862"W	0.00	
15513.00†	90.000	359.944	7586.00	7347.80	7011.40	2278.05	39°55'14.757"N	104°44'11.852"W	0.00	
15613.00†	90.000	359.944	7586.00	7445.08	7111.40	2277.95	39°55'15.745"N	104°44'11.843"W	0.00	
15713.00†	90.000	359.944	7586.00	7542.36	7211.40	2277.86	39°55'16.733"N	104°44'11.833"W	0.00	
15813.00†	90.000	359.944	7586.00	7639.64	7311.40	2277.76	39°55'17.722"N	104°44'11.823"W	0.00	
15913.00†	90.000	359.944	7586.00	7736.92	7411.40	2277.66	39°55'18.710"N	104°44'11.813"W	0.00	
16013.00†	90.000	359.944	7586.00	7834.21	7511.40	2277.56	39°55'19.698"N	104°44'11.803"W	0.00	
16113.00†	90.000	359.944	7586.00	7931.49	7611.40	2277.47	39°55'20.686"N	104°44'11.794"W	0.00	
16213.00†	90.000	359.944	7586.00	8028.77	7711.40	2277.37	39°55'21.674"N	104°44'11.784"W	0.00	
16313.00†	90.000	359.944	7586.00	8126.05	7811.40	2277.27	39°55'22.663"N	104°44'11.774"W	0.00	
16413.00†	90.000	359.944	7586.00	8223.33	7911.40	2277.17	39°55'23.651"N	104°44'11.764"W	0.00	
16513.00†	90.000	359.944	7586.00	8320.61	8011.40	2277.07	39°55'24.639"N	104°44'11.754"W	0.00	
16613.00†	90.000	359.944	7586.00	8417.89	8111.40	2276.98	39°55'25.627"N	104°44'11.745"W	0.00	
16713.00†	90.000	359.944	7586.00	8515.17	8211.40	2276.88	39°55'26.615"N	104°44'11.735"W	0.00	
16813.00†	90.000	359.944	7586.00	8612.45	8311.40	2276.78	39°55'27.604"N	104°44'11.725"W	0.00	
16913.00†	90.000	359.944	7586.00	8709.73	8411.40	2276.68	39°55'28.592"N	104°44'11.715"W	0.00	
17013.00†	90.000	359.944	7586.00	8807.01	8511.40	2276.59	39°55'29.580"N	104°44'11.705"W	0.00	





# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 8 of 10



### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH DATA (192 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17113.00†	90.000	359.944	7586.00	8904.29	8611.40	2276.49	39°55'30.568"N	104°44'11.696"W	0.00	
17213.00†	90.000	359.944	7586.00	9001.57	8711.40	2276.39	39°55'31.557"N	104°44'11.686"W	0.00	
17313.00†	90.000	359.944	7586.00	9098.85	8811.40	2276.29	39°55'32.545"N	104°44'11.676"W	0.00	
17413.00†	90.000	359.944	7586.00	9196.13	8911.40	2276.19	39°55'33.533"N	104°44'11.666"W	0.00	
17513.00†	90.000	359.944	7586.00	9293.41	9011.40	2276.10	39°55'34.521"N	104°44'11.657"W	0.00	
17613.00†	90.000	359.944	7586.00	9390.69	9111.40	2276.00	39°55'35.509"N	104°44'11.647"W	0.00	
17713.00†	90.000	359.944	7586.00	9487.97	9211.40	2275.90	39°55'36.498"N	104°44'11.637"W	0.00	
17813.00†	90.000	359.944	7586.00	9585.25	9311.40	2275.80	39°55'37.486"N	104°44'11.627"W	0.00	
17913.00†	90.000	359.944	7586.00	9682.53	9411.40	2275.71	39°55'38.474"N	104°44'11.617"W	0.00	
18013.00†	90.000	359.944	7586.00	9779.81	9511.40	2275.61	39°55'39.462"N	104°44'11.608"W	0.00	
18099.91†	90.000	359.944	7586.00	9864.36	9598.31	2275.52	39°55'40.321"N	104°44'11.599"W	0.00	Niobrara B Chalk
18099.99	90.000	359.944	7586.00 <sup>2</sup>	9864.44	9598.39	2275.52	39°55'40.322"N	104°44'11.599"W	0.00	End of Tangent (XS)

### HOLE & CASING SECTIONS - Ref Wellbore: ACKARD NORTH 2-35-4NBH Ref Wellpath: ACKARD NORTH 2-35-4NBH 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	1793.06	0.00	0.00	-27.54	80.52
8.5in Open Hole	1800.00	18099.99	16299.99	1793.06	7586.00	-27.54	80.52	9598.39	2275.52



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T02S-R66W	0.00	-64.95	-235.13	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon	
SEC.35-T01S-R66W	0.00	-64.95	-235.13	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon	
2) ACKARD NORTH 2-35-4NBH BHL (355'FNL & 866'FEL, SEC.35)	18099.99	7586.00	9598.39	2275.52	3214105.36	1217492.50	39°55'40.322"N	104°44'11.599"W	point
1) ACKARD NORTH 2-35-4NBH EP (460'FSL & 866'FEL, SEC.02)	8367.84	7586.00	-133.75	2285.04	3214114.87	1207760.62	39°54'04.147"N	104°44'12.552"W	point
SEC.02/35-T01S/02S-R66W 460'SETBACK		7855.00	-64.95	-235.13	3211594.77	1207829.42	39°54'05.040"N	104°44'44.880"W	polygon

SURVEY PROGRAM - Ref Wellbore: ACKARD NORTH 2-35-4NBH					Ref Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore	
13.00	18099.99	Custom BHI NavITrak (Standard Rotating) (Rockies 0.03Gt model)				ACKARD NORTH 2-35-4NBH	



# Planned Wellpath Report

## ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Page 10 of 10

### REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

### WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
500.00	0.000	108.883	500.00	Fox Hills
5306.79	22.183	108.883	5050.00	Sussex / Shannon
7924.11	49.271	19.339	7433.54	Niobrara A Chalk
7956.42	52.131	17.396	7454.00	Niobrara A Marl
18099.91	90.000	359.944	7586.00	Niobrara B Chalk

### DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	108.883	13.00	Tie On
1100.00	0.000	108.883	1100.00	End of Tangent
2209.17	22.183	108.883	2181.66	End of Build (XS)
7397.45	22.183	108.883	6985.91	End of Tangent (XS)
8367.84	90.000	359.944	7586.00	End of 3D Arc (XS)
18099.99	90.000	359.944	7586.00	End of Tangent (XS)



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 1 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Ingmjmr
Scale	0.999975	Report Generated	10/20/2017 at 10:23:34 AM
Convergence at slot	0.49° East	Database/Source file	Jamie/ACKARD_NORTH_2-35-4NBH_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	0.53	194.94	3211829.90	1207894.37	39°54'05.662"N	104°44'41.856"W
Facility Reference Pt			3211634.96	1207893.83	39°54'05.673"N	104°44'44.357"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	5213.00ft
Horizontal Reference Pt	Slot	RIG (13'KB) (RKB) to Mean Sea Level	5213.00ft
Vertical Reference Pt	RIG (13'KB) (RKB)	RIG (13'KB) (RKB) to Ground Level at Slot (SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02))	5213.00ft
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	8.33° East of TN	Dip Angle	66.48°	Mag Field Strength	52123 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 2 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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: ACKARD NORTH 2-35-4NBH Ref Wellpath: ACKARD NORTH 2-35-4NBH 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	1793.06	0.00	0.00	-27.54	80.52
8.5in Open Hole	1800.00	18099.99	16299.99	1793.06	7586.00	-27.54	80.52	9598.39	2275.52

SURVEY PROGRAM - Ref Wellbore: ACKARD NORTH 2-35-4NBH Ref Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18099.99	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NBH



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 3 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 18099.99ft MD	C-C Cutoff: 1000.00 ft
------------------	-------------------	------------------------

## OFFSET WELL CLEARANCE SUMMARY (36 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.35-T1S-R66W	SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315)	BOX ELDER FARMS 41-35 #5	BOX ELDER FARMS 41-35 #5 AWB	BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP	17738.96	193.00	17738.96	17738.96	0.02	17738.96	FAIL
SEC.35-T01S-R66W	SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360)	SLOT#01 EX CHAMPLIN 117 AMOCO G#1	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP	15111.64	196.23	15111.64	15134.41	0.47	15134.41	FAIL
SEC.02-T03S-R66W	SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)	ACKARD NORTH 2-35-4NAH	ACKARD NORTH 2-35-4NAH PWB	ACKARD NORTH 2-35-4NAH PWP (REV. A.0)	13.00	15.01	913.00	18099.99	0.60	18099.99	FAIL
SEC.02-T02S-R66W	SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR)	CARLSON #1	CARLSON #1 AWB	CARLSON #1 AWP	12532.70	223.51	12532.70	12566.70	0.65	12566.70	FAIL
SEC.02-T03S-R66W	SLOT#13 ACKARD NORTH 2-35-4NCH (600'FSL & 2115'FWL, SEC.02)	ACKARD NORTH 2-35-4NCH	ACKARD NORTH 2-35-4NCH PWB	ACKARD NORTH 2-35-4NCH PWP (REV. A.0)	13.00	14.95	18097.20	18097.20	0.68	18097.20	FAIL
SEC.02-T03S-R66W	SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02)	ACKARD NORTH 2-35-4CDH	ACKARD NORTH 2-35-4CDH PWB	ACKARD NORTH 2-35-4CDH PWP (REV. A.0)	13.00	30.02	18099.99	18099.99	0.89	18099.99	FAIL
SEC.02-T03S-R66W	SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02)	ACKARD NORTH 2-35-3CDH	ACKARD NORTH 2-35-3CDH PWB	ACKARD NORTH 2-35-3CDH PWP (REV. A.0)	13.00	29.99	18094.41	18094.41	1.44	18094.41	PASS
SEC.02-T03S-R66W	SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02)	ACKARD NORTH 2-35-3NAH	ACKARD NORTH 2-35-3NAH PWB	ACKARD NORTH 2-35-3NAH PWP (REV. A.0)	13.00	45.00	18099.99	18086.34	1.54	18086.34	PASS
SEC.02-T03S-R66W	SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02)	ACKARD NORTH 2-35-3NBH	ACKARD NORTH 2-35-3NBH PWB	ACKARD NORTH 2-35-3NBH PWP (REV. A.0)	13.00	59.96	18091.62	18091.62	2.01	18091.62	PASS
SEC.35-T01S-R66W	SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 PR)	BOX ELDER FARMS 32-35#4	BOX ELDER FARMS 32-35#4 AWB	BOX ELDER FARMS 32-35#4 AWP	16478.73	1103.87	16478.73	16426.77	2.42	16426.77	PASS
SEC.02-T03S-R66W	SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02)	ACKARD NORTH 2-35-3NCH	ACKARD NORTH 2-35-3NCH PWB	ACKARD NORTH 2-35-3NCH PWP (REV. A.0)	13.00	74.97	18088.86	18088.86	2.68	18088.86	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360)	CHAMPLIN 117 AMOCO G#2	CHAMPLIN 117 AMOCO G#2 AWB	CHAMPLIN 117 AMOCO G#2 AWP	13845.29	1104.93	13845.29	13778.77	2.93	13778.77	PASS
SEC.02-T03S-R66W	SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02)	ACKARD NORTH 2-35-2NBH	ACKARD NORTH 2-35-2NBH	ACKARD NORTH 2-35-2NBH PWP (REV. A.0)	13.00	89.95	1100.00	18089.70	3.21	18089.70	PASS
SEC.11-T02S-R66W	SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR)	HSR-VAN SCHAACK #2-11	HSR-VAN SCHAACK #2-11 AWB	HSR-VAN SCHAACK #2-11 AWP	5713.00	740.08	5713.00	6213.00	3.39	6213.00	PASS
SEC.26-T01S-R66W	SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, PR)	MAUL #2	MAUL #2 AWB	MAUL #2 AWP	18099.99	1537.73	18099.99	18099.99	3.49	18099.99	PASS
SEC.02-T03S-R66W	SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02)	ACKARD NORTH 2-35-2NCH	ACKARD NORTH 2-35-2NCH PWB	ACKARD NORTH 2-35-2NCH PWP (REV. A.0)	13.00	104.93	1100.00	18099.99	3.88	18099.99	PASS
SEC.26-T01S-R66W	SLOT#01 EX MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, PR)	MAUL #44-26	MAUL #44-26 AWB	MAUL #44-26 AWP	18099.99	1043.89	18099.99	18099.99	4.09	18099.99	PASS
SEC.02-T03S-R66W	SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02)	ACKARD NORTH 2-35-2NAH	ACKARD NORTH 2-35-2NAH PWB	ACKARD NORTH 2-35-2NAH PWP (REV. A.0)	13.00	119.97	1100.00	18099.99	4.40	18099.99	PASS
SEC.02-T03S-R66W	SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02)	ACKARD NORTH 2-35-2CDH	ACKARD NORTH 2-35-2CDH PWB	ACKARD NORTH 2-35-2CDH PWP (REV. A.0)	13.00	134.95	1100.00	18099.99	4.58	18099.99	PASS
SEC.01-T02S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410)	CHAMPLIN 117 AMOCO C#4	CHAMPLIN 117 AMOCO C#4 AWB	CHAMPLIN 117 AMOCO C#4 AWP	11196.76	1501.79	11196.76	11587.71	4.81	11587.71	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,PR)	CHAMPLIN 117 AMOCO G#6	CHAMPLIN 117 AMOCO G#6 AWB	CHAMPLIN 117 AMOCO G#6 AWP	17788.00	2414.91	17788.00	17788.00	4.88	17788.00	PASS
SEC.26-T01S-R66W	SLOT#03 EX LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, PR)	LEECH #24-26	LEECH #24-26 AWB	LEECH #24-26 AWP	18099.99	2612.31	18099.99	18099.99	5.14	18099.99	PASS
SEC.02-T03S-R66W	SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02)	ACKARD NORTH 2-35-1NBH	ACKARD NORTH 2-35-1NBH PWB	ACKARD NORTH 2-35-1NBH PWP (REV. A.0)	13.00	149.96	1100.00	18099.99	5.22	18099.99	PASS
SEC.35-T01S-R66W	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360)	SLOT#01 EX CHAMPLIN 117 AMOCO G#3	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP	15113.00	2415.23	15113.00	15143.59	5.83	15143.59	PASS
SEC.02-T03S-R66W	SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02)	ACKARD NORTH 2-35-1NCH	ACKARD NORTH 2-35-1NCH PWB	ACKARD NORTH 2-35-1NCH PWP (REV-A.0)	13.00	164.92	913.00	18099.99	5.90	18099.99	PASS





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 4 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CALCULATION RANGE & CUTOFF

From: 13.00ft MD	To: 18099.99ft MD	C-C Cutoff: 1000.00 ft
------------------	-------------------	------------------------

## OFFSET WELL CLEARANCE SUMMARY (36 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.02-T03S-R66W	SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02)	ACKARD NORTH 2-35-1NAH	ACKARD NORTH 2-35-1NAH PWB	ACKARD NORTH 2-35-1NAH PWP (REV-A.0)	13.00	179.93	813.00	18099.99	6.41	18099.99	PASS
SEC.02-T03S-R66W	SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02)	ACKARD NORTH 2-35-1CDH	ACKARD NORTH 2-35-1CDH PWB	ACKARD NORTH 2-35-1CDH PWP (REV-A.0)	13.00	194.94	713.00	18099.99	6.59	18099.99	PASS
SEC.02-T02S-R66W	SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, SI)	MARTIN #1	MARTIN #1 AWB	MARTIN #1 AWP	12550.50	2363.07	12550.50	12576.50	7.00	12576.50	PASS
SEC.26-T01S-R66W	SLOT#04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, PR)	LEECH #14-26	LEECH #14-26 AWB	LEECH #14-26 AWP	18099.99	3892.85	18099.99	18099.99	7.60	18099.99	PASS
SEC.35-T01S-R66W	SLOT#02 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,PR)	CHAMPLIN 117 AMOCO G#5	CHAMPLIN 117 AMOCO G#5 AWB	CHAMPLIN 117 AMOCO G#5 AWP	16410.50	3776.08	16410.50	16676.85	8.30	16676.85	PASS
SEC.02-T02S-R66W	SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390)	OTTER#1	OTTER#1 AWB	OTTER#1 AWP	13.00	1352.68	9813.00	8863.63	8.98	9913.00	PASS
SEC.35-T01S-R66W	SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, PR)	CHAMPLIN 117 G#4	CHAMPLIN 117 G#4 AWB	CHAMPLIN 117 G#4 AWP	13800.50	3724.04	13800.50	14113.00	9.92	14113.00	PASS
SEC.02-T02S-R66W	SLOT#02 EX HSR ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, PR)	HSR ACKARD #5-2	HSR ACKARD #5-2 AWB	HSR ACKARD #5-2 AWP	13.00	3057.60	11213.00	11632.96	12.44	11632.96	PASS
SEC.11-T02S-R66W	SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, PR)	HSR-VAN SCHAACK #4-11	HSR-VAN SCHAACK #4-11 AWB	HSR-VAN SCHAACK #4-11 AWP	113.00	1872.35	1100.00	8862.75	14.10	8862.75	PASS
SEC.03-T02S-R66W	SLOT#01 EX HSR LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, PR)	HSR LAWSON #8-3	HSR LAWSON #8-3 AWB	HSR LAWSON #8-3 AWP	113.00	3689.10	10913.00	12013.00	16.94	12013.00	PASS
SEC.03-T02S-R66W	SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR)	HSR-TR RANCH #16-3	HSR-TR RANCH #16-3 AWB	HSR-TR RANCH #16-3 AWP	113.00	2792.20	8513.00	8863.10	17.79	9113.00	PASS



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 5 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	24.00	9236.78	2468.87	14.97	9561.04	25.40	388.60	PASS
113.00†	113.00	0.00	0.00	76.00	113.00	9236.78	2468.87	14.97	9561.03	66.58	145.33	PASS
213.00†	213.00	0.00	0.00	176.00	213.00	9236.78	2468.87	14.97	9561.03	97.50	98.86	PASS
313.00†	313.00	0.00	0.00	276.00	313.00	9236.78	2468.87	14.97	9561.03	130.53	73.69	PASS
413.00†	413.00	0.00	0.00	376.00	413.00	9236.78	2468.87	14.97	9561.03	164.18	58.52	PASS
513.00†	513.00	0.00	0.00	476.00	513.00	9236.78	2468.87	14.97	9561.03	198.08	48.46	PASS
613.00†	613.00	0.00	0.00	576.00	613.00	9236.78	2468.87	14.97	9561.03	232.11	41.33	PASS
713.00†	713.00	0.00	0.00	676.00	713.00	9236.78	2468.87	14.97	9561.03	266.22	36.02	PASS
813.00†	813.00	0.00	0.00	776.00	813.00	9236.78	2468.87	14.97	9561.03	300.38	31.91	PASS
913.00†	913.00	0.00	0.00	876.00	913.00	9236.78	2468.87	14.97	9561.03	334.58	28.64	PASS
1013.00†	1013.00	0.00	0.00	976.00	1013.00	9236.78	2468.87	14.97	9561.03	368.80	25.98	PASS
1100.00	1100.00	0.00	0.00	1063.00	1100.00	9236.78	2468.87	14.97	9561.03	398.59	24.03	PASS
1113.00†	1113.00	-0.01	0.03	1076.00	1113.00	9236.78	2468.87	-93.92	9561.04	403.04	23.77	PASS
1213.00†	1212.97	-0.72	2.11	1175.97	1212.97	9236.78	2468.87	-93.93	9561.19	436.94	21.92	PASS
1313.00†	1312.80	-2.56	7.49	1275.80	1312.80	9236.78	2468.87	-93.96	9561.58	470.15	20.37	PASS
1413.00†	1412.38	-5.53	16.16	1375.38	1412.38	9236.78	2468.87	-94.00	9562.22	502.49	19.06	PASS
1513.00†	1511.57	-9.62	28.12	1474.57	1511.57	9236.78	2468.87	-94.05	9563.11	533.79	17.94	PASS
1613.00†	1610.26	-14.83	43.34	1573.26	1610.26	9236.78	2468.87	-94.13	9564.27	563.88	16.98	PASS
1713.00†	1708.33	-21.14	61.82	1671.33	1708.33	9236.78	2468.87	-94.21	9565.72	592.59	16.16	PASS
1813.00†	1805.66	-28.57	83.52	1768.66	1805.66	9236.78	2468.87	-94.31	9567.47	619.67	15.46	PASS
1913.00†	1902.13	-37.09	108.42	1865.13	1902.13	9236.78	2468.87	-94.42	9569.55	645.17	14.85	PASS
2013.00†	1997.62	-46.69	136.49	1960.62	1997.62	9236.78	2468.87	-94.54	9571.97	668.84	14.33	PASS
2113.00†	2092.02	-57.36	167.70	2055.02	2092.02	9236.78	2468.87	-94.67	9574.78	690.55	13.88	PASS
2209.17	2181.66	-68.63	200.64	2144.66	2181.66	9236.78	2468.87	-94.80	9577.86	709.47	13.51	PASS
2213.00†	2185.21	-69.10	202.01	2148.21	2185.21	9236.78	2468.87	-94.81	9577.99	710.18	13.50	PASS
2313.00†	2277.81	-81.32	237.73	2240.81	2277.81	9236.78	2468.87	-95.02	9581.48	728.34	13.17	PASS
2413.00†	2370.41	-93.54	273.46	2333.41	2370.41	9236.78	2468.87	-95.23	9585.12	745.62	12.87	PASS
2513.00†	2463.01	-105.76	309.18	2426.01	2463.01	9236.78	2468.87	-95.44	9588.91	762.02	12.59	PASS
2613.00†	2555.60	-117.97	344.91	2518.60	2555.60	9236.78	2468.87	-95.64	9592.84	777.54	12.35	PASS
2713.00†	2648.20	-130.19	380.63	2611.20	2648.20	9236.78	2468.87	-95.85	9596.92	792.16	12.12	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 6 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	2740.80	-142.41	416.36	2703.80	2740.80	9236.78	2468.87	-96.06	9601.15	805.90	11.92	PASS
2913.00†	2833.40	-154.63	452.08	2796.40	2833.40	9236.78	2468.87	-96.27	9605.52	818.74	11.74	PASS
3013.00†	2926.00	-166.85	487.81	2889.00	2926.00	9236.78	2468.87	-96.47	9610.04	830.69	11.58	PASS
3113.00†	3018.59	-179.07	523.53	2981.59	3018.59	9236.78	2468.87	-96.68	9614.71	841.75	11.43	PASS
3213.00†	3111.19	-191.29	559.26	3074.19	3111.19	9236.78	2468.87	-96.89	9619.52	851.92	11.30	PASS
3313.00†	3203.79	-203.51	594.98	3166.79	3203.79	9236.78	2468.87	-97.10	9624.47	861.18	11.18	PASS
3413.00†	3296.39	-215.73	630.71	3259.39	3296.39	9236.78	2468.87	-97.30	9629.58	869.55	11.08	PASS
3513.00†	3388.99	-227.95	666.43	3351.99	3388.99	9236.78	2468.87	-97.51	9634.83	877.02	10.99	PASS
3613.00†	3481.59	-240.17	702.16	3444.59	3481.59	9236.78	2468.87	-97.72	9640.22	883.60	10.92	PASS
3713.00†	3574.18	-252.39	737.88	3537.18	3574.18	9236.78	2468.87	-97.92	9645.76	889.28	10.85	PASS
3813.00†	3666.78	-264.61	773.61	3629.78	3666.78	9236.78	2468.87	-98.13	9651.44	894.06	10.80	PASS
3913.00†	3759.38	-276.83	809.33	3722.38	3759.38	9236.78	2468.87	-98.33	9657.27	897.94	10.76	PASS
4013.00†	3851.98	-289.05	845.06	3814.98	3851.98	9236.78	2468.87	-98.54	9663.24	900.93	10.73	PASS
4113.00†	3944.58	-301.27	880.78	3907.58	3944.58	9236.78	2468.87	-98.74	9669.35	903.03	10.72	PASS
4213.00†	4037.17	-313.49	916.51	4000.17	4037.17	9236.78	2468.87	-98.95	9675.61	904.23	10.71	PASS
4313.00†	4129.77	-325.71	952.23	4092.77	4129.77	9236.78	2468.87	-99.15	9682.01	904.54	10.71	PASS
4413.00†	4222.37	-337.93	987.96	4185.37	4222.37	9236.78	2468.87	-99.36	9688.55	903.96	10.73	PASS
4513.00†	4314.97	-350.15	1023.68	4277.97	4314.97	9236.78	2468.87	-99.56	9695.24	902.50	10.75	PASS
4613.00†	4407.57	-362.37	1059.41	4370.57	4407.57	9236.78	2468.87	-99.77	9702.07	900.15	10.79	PASS
4713.00†	4500.16	-374.59	1095.13	4463.16	4500.16	9236.78	2468.87	-99.97	9709.04	896.92	10.83	PASS
4813.00†	4592.76	-386.81	1130.86	4555.76	4592.76	9236.78	2468.87	-100.17	9716.15	892.80	10.89	PASS
4913.00†	4685.36	-399.03	1166.58	4648.36	4685.36	9236.78	2468.87	-100.38	9723.41	887.82	10.96	PASS
5013.00†	4777.96	-411.25	1202.31	4740.96	4777.96	9236.78	2468.87	-100.58	9730.80	881.96	11.04	PASS
5113.00†	4870.56	-423.47	1238.03	4833.56	4870.56	9236.78	2468.87	-100.78	9738.34	875.23	11.13	PASS
5213.00†	4963.15	-435.69	1273.76	4926.15	4963.15	9236.78	2468.87	-100.99	9746.02	867.64	11.24	PASS
5313.00†	5055.75	-447.91	1309.48	5018.75	5055.75	9236.78	2468.87	-101.19	9753.83	859.19	11.36	PASS
5413.00†	5148.35	-460.13	1345.21	5111.35	5148.35	9236.78	2468.87	-101.39	9761.79	849.88	11.49	PASS
5513.00†	5240.95	-472.35	1380.93	5203.95	5240.95	9236.78	2468.87	-101.59	9769.88	839.73	11.64	PASS
5613.00†	5333.55	-484.56	1416.66	5296.55	5333.55	9236.78	2468.87	-101.79	9778.12	828.73	11.81	PASS
5713.00†	5426.14	-496.78	1452.38	5389.14	5426.14	9236.78	2468.87	-101.99	9786.49	816.89	11.99	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 7 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	5518.74	-509.00	1488.11	5481.74	5518.74	9236.78	2468.87	-102.19	9795.00	804.23	12.19	PASS
5913.00†	5611.34	-521.22	1523.83	5574.34	5611.34	9236.78	2468.87	-102.40	9803.65	790.74	12.41	PASS
6013.00†	5703.94	-533.44	1559.56	5666.94	5703.94	9236.78	2468.87	-102.60	9812.44	776.45	12.65	PASS
6113.00†	5796.54	-545.66	1595.28	5759.54	5796.54	9236.78	2468.87	-102.80	9821.37	761.35	12.91	PASS
6213.00†	5889.13	-557.88	1631.01	5852.13	5889.13	9236.78	2468.87	-102.99	9830.43	745.45	13.20	PASS
6313.00†	5981.73	-570.10	1666.73	5944.73	5981.73	9236.78	2468.87	-103.19	9839.63	728.78	13.51	PASS
6413.00†	6074.33	-582.32	1702.46	6037.33	6074.33	9236.78	2468.87	-103.39	9848.96	711.35	13.86	PASS
6513.00†	6166.93	-594.54	1738.18	6129.93	6166.93	9236.78	2468.87	-103.59	9858.43	693.16	14.24	PASS
6613.00†	6259.53	-606.76	1773.91	6222.53	6259.53	9236.78	2468.87	-103.79	9868.04	674.25	14.65	PASS
6713.00†	6352.13	-618.98	1809.63	6315.13	6352.13	9236.78	2468.87	-103.99	9877.78	654.63	15.10	PASS
6813.00†	6444.72	-631.20	1845.36	6407.72	6444.72	9236.78	2468.87	-104.19	9887.66	634.33	15.60	PASS
6913.00†	6537.32	-643.42	1881.08	6500.32	6537.32	9236.78	2468.87	-104.38	9897.66	613.38	16.15	PASS
7013.00†	6629.92	-655.64	1916.81	6592.92	6629.92	9236.78	2468.87	-104.58	9907.81	591.82	16.76	PASS
7113.00†	6722.52	-667.86	1952.53	6685.52	6722.52	9236.78	2468.87	-104.78	9918.08	569.70	17.43	PASS
7213.00†	6815.12	-680.08	1988.26	6778.12	6815.12	9236.78	2468.87	-104.97	9928.49	547.06	18.17	PASS
7313.00†	6907.71	-692.30	2023.98	6870.71	6907.71	9236.78	2468.87	-105.17	9939.04	523.99	18.99	PASS
7397.45	6985.91	-702.62	2054.15	6948.91	6985.91	9236.78	2468.87	-105.33	9948.04	504.22	19.76	PASS
7413.00†	7000.33	-704.31	2059.72	6963.33	7000.33	9236.78	2468.87	-101.66	9949.50	500.56	19.90	PASS
7513.00†	7093.51	-705.12	2095.66	7056.51	7093.51	9236.78	2468.87	-76.40	9948.90	477.21	20.88	PASS
7613.00†	7185.41	-688.57	2131.08	7148.41	7185.41	9236.78	2468.87	-55.04	9931.09	454.83	21.87	PASS
7713.00†	7273.24	-655.17	2164.92	7236.24	7273.24	9236.78	2468.87	-41.03	9896.62	433.80	22.85	PASS
7813.00†	7354.33	-605.94	2196.15	7317.33	7354.33	9236.78	2468.87	-32.37	9846.49	414.75	23.78	PASS
7913.00†	7426.22	-542.36	2223.81	7389.22	7426.22	9236.78	2468.87	-26.85	9782.21	398.27	24.60	PASS
8013.00†	7486.72	-466.38	2247.07	7449.72	7486.72	9236.78	2468.87	-23.12	9705.69	384.87	25.26	PASS
8113.00†	7533.99	-380.29	2265.22	7496.99	7533.99	9236.78	2468.87	-20.34	9619.23	374.88	25.71	PASS
8213.00†	7566.60	-286.72	2277.70	7529.60	7566.60	9236.78	2468.87	-17.49	9525.42	368.53	25.90	PASS
8313.00†	7583.55	-188.51	2284.15	7546.55	7583.55	9236.78	2468.87	-8.90	9427.10	365.93	25.81	PASS
8367.84	7586.00	-133.75	2285.04	7549.00	7586.00	9236.78	2468.87	90.00	9372.33	366.15	25.64	PASS
8413.00†	7586.00	-88.59	2284.99	7549.00	7586.00	9236.78	2468.87	90.00	9327.18	366.82	25.47	PASS
8513.00†	7586.00	11.41	2284.90	7549.00	7586.00	9236.78	2468.87	90.00	9227.20	368.35	25.10	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 8 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	7586.00	111.41	2284.80	7549.00	7586.00	9236.78	2468.87	90.00	9127.23	369.92	24.72	PASS
8713.00†	7586.00	211.41	2284.70	7549.00	7586.00	9236.78	2468.87	90.00	9027.25	371.53	24.34	PASS
8813.00†	7586.00	311.41	2284.60	7549.00	7586.00	9236.78	2468.87	90.00	8927.27	373.19	23.96	PASS
8913.00†	7586.00	411.41	2284.51	7549.00	7586.00	9236.78	2468.87	90.00	8827.30	374.90	23.59	PASS
9013.00†	7586.00	511.41	2284.41	7549.00	7586.00	9236.78	2468.87	90.00	8727.32	376.66	23.21	PASS
9113.00†	7586.00	611.41	2284.31	7549.00	7586.00	9236.78	2468.87	90.00	8627.34	378.48	22.84	PASS
9213.00†	7586.00	711.41	2284.21	7549.00	7586.00	9236.78	2468.87	90.00	8527.37	380.34	22.46	PASS
9313.00†	7586.00	811.41	2284.11	7549.00	7586.00	9236.78	2468.87	90.00	8427.40	382.26	22.09	PASS
9413.00†	7586.00	911.41	2284.02	7549.00	7586.00	9236.78	2468.87	90.00	8327.42	384.24	21.71	PASS
9513.00†	7586.00	1011.41	2283.92	7549.00	7586.00	9236.78	2468.87	90.00	8227.45	386.28	21.34	PASS
9613.00†	7586.00	1111.41	2283.82	7549.00	7586.00	9236.78	2468.87	90.00	8127.48	388.38	20.96	PASS
9713.00†	7586.00	1211.41	2283.72	7549.00	7586.00	9236.78	2468.87	90.00	8027.51	390.55	20.59	PASS
9813.00†	7586.00	1311.41	2283.63	7549.00	7586.00	9236.78	2468.87	90.00	7927.53	392.79	20.22	PASS
9913.00†	7586.00	1411.41	2283.53	7549.00	7586.00	9236.78	2468.87	90.00	7827.56	395.10	19.85	PASS
10013.00†	7586.00	1511.41	2283.43	7549.00	7586.00	9236.78	2468.87	90.00	7727.60	397.48	19.47	PASS
10113.00†	7586.00	1611.41	2283.33	7549.00	7586.00	9236.78	2468.87	90.00	7627.63	399.94	19.10	PASS
10213.00†	7586.00	1711.41	2283.23	7549.00	7586.00	9236.78	2468.87	90.00	7527.66	402.47	18.73	PASS
10313.00†	7586.00	1811.40	2283.14	7549.00	7586.00	9236.78	2468.87	90.00	7427.69	405.09	18.37	PASS
10413.00†	7586.00	1911.40	2283.04	7549.00	7586.00	9236.78	2468.87	90.00	7327.73	407.80	18.00	PASS
10513.00†	7586.00	2011.40	2282.94	7549.00	7586.00	9236.78	2468.87	90.00	7227.76	410.60	17.63	PASS
10613.00†	7586.00	2111.40	2282.84	7549.00	7586.00	9236.78	2468.87	90.00	7127.80	413.50	17.27	PASS
10713.00†	7586.00	2211.40	2282.75	7549.00	7586.00	9236.78	2468.87	90.00	7027.84	416.49	16.90	PASS
10813.00†	7586.00	2311.40	2282.65	7549.00	7586.00	9236.78	2468.87	90.00	6927.87	419.59	16.54	PASS
10913.00†	7586.00	2411.40	2282.55	7549.00	7586.00	9236.78	2468.87	90.00	6827.91	422.79	16.17	PASS
11013.00†	7586.00	2511.40	2282.45	7549.00	7586.00	9236.78	2468.87	90.00	6727.95	426.11	15.81	PASS
11113.00†	7586.00	2611.40	2282.35	7549.00	7586.00	9236.78	2468.87	90.00	6628.00	429.55	15.45	PASS
11213.00†	7586.00	2711.40	2282.26	7549.00	7586.00	9236.78	2468.87	90.00	6528.04	433.11	15.10	PASS
11313.00†	7586.00	2811.40	2282.16	7549.00	7586.00	9236.78	2468.87	90.00	6428.08	436.81	14.74	PASS
11413.00†	7586.00	2911.40	2282.06	7549.00	7586.00	9236.78	2468.87	90.00	6328.13	440.64	14.38	PASS
11513.00†	7586.00	3011.40	2281.96	7549.00	7586.00	9236.78	2468.87	90.00	6228.18	444.61	14.03	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 9 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	7586.00	3111.40	2281.87	7549.00	7586.00	9236.78	2468.87	90.00	6128.23	448.74	13.68	PASS
11713.00†	7586.00	3211.40	2281.77	7549.00	7586.00	9236.78	2468.87	90.00	6028.28	453.02	13.33	PASS
11813.00†	7586.00	3311.40	2281.67	7549.00	7586.00	9236.78	2468.87	90.00	5928.33	457.47	12.98	PASS
11913.00†	7586.00	3411.40	2281.57	7549.00	7586.00	9236.78	2468.87	90.00	5828.38	462.10	12.63	PASS
12013.00†	7586.00	3511.40	2281.47	7549.00	7586.00	9236.78	2468.87	90.00	5728.44	466.92	12.29	PASS
12113.00†	7586.00	3611.40	2281.38	7549.00	7586.00	9236.78	2468.87	90.00	5628.50	471.93	11.94	PASS
12213.00†	7586.00	3711.40	2281.28	7549.00	7586.00	9236.78	2468.87	90.00	5528.55	477.14	11.60	PASS
12313.00†	7586.00	3811.40	2281.18	7549.00	7586.00	9236.78	2468.87	90.00	5428.62	482.58	11.26	PASS
12413.00†	7586.00	3911.40	2281.08	7549.00	7586.00	9236.78	2468.87	90.00	5328.68	488.25	10.93	PASS
12513.00†	7586.00	4011.40	2280.99	7549.00	7586.00	9236.78	2468.87	90.00	5228.75	494.16	10.59	PASS
12613.00†	7586.00	4111.40	2280.89	7549.00	7586.00	9236.78	2468.87	90.00	5128.82	500.33	10.26	PASS
12713.00†	7586.00	4211.40	2280.79	7549.00	7586.00	9236.78	2468.87	90.00	5028.89	506.78	9.94	PASS
12813.00†	7586.00	4311.40	2280.69	7549.00	7586.00	9236.78	2468.87	90.00	4928.97	513.52	9.61	PASS
12913.00†	7586.00	4411.40	2280.59	7549.00	7586.00	9236.78	2468.87	90.00	4829.04	520.57	9.29	PASS
13013.00†	7586.00	4511.40	2280.50	7549.00	7586.00	9236.78	2468.87	90.00	4729.12	527.95	8.97	PASS
13113.00†	7586.00	4611.40	2280.40	7549.00	7586.00	9236.78	2468.87	90.00	4629.21	535.68	8.65	PASS
13213.00†	7586.00	4711.40	2280.30	7549.00	7586.00	9236.78	2468.87	90.00	4529.30	543.79	8.34	PASS
13313.00†	7586.00	4811.40	2280.20	7549.00	7586.00	9236.78	2468.87	90.00	4429.39	552.30	8.03	PASS
13413.00†	7586.00	4911.40	2280.11	7549.00	7586.00	9236.78	2468.87	90.00	4329.49	561.24	7.72	PASS
13513.00†	7586.00	5011.40	2280.01	7549.00	7586.00	9236.78	2468.87	90.00	4229.59	570.65	7.42	PASS
13613.00†	7586.00	5111.40	2279.91	7549.00	7586.00	9236.78	2468.87	90.00	4129.70	580.54	7.12	PASS
13713.00†	7586.00	5211.40	2279.81	7549.00	7586.00	9236.78	2468.87	90.00	4029.81	590.98	6.83	PASS
13813.00†	7586.00	5311.40	2279.71	7549.00	7586.00	9236.78	2468.87	90.00	3929.93	601.98	6.53	PASS
13913.00†	7586.00	5411.40	2279.62	7549.00	7586.00	9236.78	2468.87	90.00	3830.05	613.60	6.25	PASS
14013.00†	7586.00	5511.40	2279.52	7549.00	7586.00	9236.78	2468.87	90.00	3730.18	625.89	5.97	PASS
14113.00†	7586.00	5611.40	2279.42	7549.00	7586.00	9236.78	2468.87	90.00	3630.32	638.91	5.69	PASS
14213.00†	7586.00	5711.40	2279.32	7549.00	7586.00	9236.78	2468.87	90.00	3530.46	652.70	5.41	PASS
14313.00†	7586.00	5811.40	2279.23	7549.00	7586.00	9236.78	2468.87	90.00	3430.62	667.36	5.14	PASS
14413.00†	7586.00	5911.40	2279.13	7549.00	7586.00	9236.78	2468.87	90.00	3330.78	682.94	4.88	PASS
14513.00†	7586.00	6011.40	2279.03	7549.00	7586.00	9236.78	2468.87	90.00	3230.95	699.55	4.62	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 10 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	7586.00	6111.40	2278.93	7549.00	7586.00	9236.78	2468.87	90.00	3131.14	717.27	4.37	PASS
14713.00†	7586.00	6211.40	2278.83	7549.00	7586.00	9236.78	2468.87	90.00	3031.34	736.21	4.12	PASS
14813.00†	7586.00	6311.40	2278.74	7549.00	7586.00	9236.78	2468.87	90.00	2931.55	756.51	3.88	PASS
14913.00†	7586.00	6411.40	2278.64	7549.00	7586.00	9236.78	2468.87	90.00	2831.77	778.30	3.64	PASS
15013.00†	7586.00	6511.40	2278.54	7549.00	7586.00	9236.78	2468.87	90.00	2732.01	801.76	3.41	PASS
15113.00†	7586.00	6611.40	2278.44	7549.00	7586.00	9236.78	2468.87	90.00	2632.27	827.05	3.18	PASS
15213.00†	7586.00	6711.40	2278.35	7549.00	7586.00	9236.78	2468.87	90.00	2532.55	854.42	2.97	PASS
15313.00†	7586.00	6811.40	2278.25	7549.00	7586.00	9236.78	2468.87	90.00	2432.85	884.10	2.75	PASS
15413.00†	7586.00	6911.40	2278.15	7549.00	7586.00	9236.78	2468.87	90.00	2333.18	916.40	2.55	PASS
15513.00†	7586.00	7011.40	2278.05	7549.00	7586.00	9236.78	2468.87	90.00	2233.54	951.66	2.35	PASS
15613.00†	7586.00	7111.40	2277.95	7549.00	7586.00	9236.78	2468.87	90.00	2133.93	990.30	2.16	PASS
15713.00†	7586.00	7211.40	2277.86	7549.00	7586.00	9236.78	2468.87	90.00	2034.36	1032.82	1.97	PASS
15813.00†	7586.00	7311.40	2277.76	7549.00	7586.00	9236.78	2468.87	90.00	1934.83	1079.80	1.79	PASS
15913.00†	7586.00	7411.40	2277.66	7549.00	7586.00	9236.78	2468.87	90.00	1835.36	1131.97	1.62	PASS
16013.00†	7586.00	7511.40	2277.56	7549.00	7586.00	9236.78	2468.87	90.00	1735.95	1190.22	1.46	PASS
16113.00†	7586.00	7611.40	2277.47	7549.00	7586.00	9236.78	2468.87	90.00	1636.60	1255.66	1.30	PASS
16213.00†	7586.00	7711.40	2277.37	7549.00	7586.00	9236.78	2468.87	90.00	1537.35	1329.65	1.16	PASS
16313.00†	7586.00	7811.40	2277.27	7549.00	7586.00	9236.78	2468.87	90.00	1438.19	1413.96	1.02	PASS
16413.00†	7586.00	7911.40	2277.17	7549.00	7586.00	9236.78	2468.87	90.00	1339.17	1510.86	0.89	FAIL
16513.00†	7586.00	8011.40	2277.07	7549.00	7586.00	9236.78	2468.87	90.00	1240.29	1623.32	0.76	FAIL
16613.00†	7586.00	8111.40	2276.98	7549.00	7586.00	9236.78	2468.87	90.00	1141.62	1755.35	0.65	FAIL
16713.00†	7586.00	8211.40	2276.88	7549.00	7586.00	9236.78	2468.87	90.00	1043.19	1912.40	0.55	FAIL
16813.00†	7586.00	8311.40	2276.78	7549.00	7586.00	9236.78	2468.87	90.00	945.10	2102.15	0.45	FAIL
16913.00†	7586.00	8411.40	2276.68	7549.00	7586.00	9236.78	2468.87	90.00	847.45	2335.67	0.36	FAIL
17013.00†	7586.00	8511.40	2276.59	7549.00	7586.00	9236.78	2468.87	90.00	750.43	2629.49	0.29	FAIL
17113.00†	7586.00	8611.40	2276.49	7549.00	7586.00	9236.78	2468.87	90.00	654.30	3009.05	0.22	FAIL
17213.00†	7586.00	8711.40	2276.39	7549.00	7586.00	9236.78	2468.87	90.00	559.52	3514.80	0.16	FAIL
17313.00†	7586.00	8811.40	2276.29	7549.00	7586.00	9236.78	2468.87	90.00	466.94	4212.54	0.11	FAIL
17413.00†	7586.00	8911.40	2276.19	7549.00	7586.00	9236.78	2468.87	90.00	378.14	5209.28	0.07	FAIL
17513.00†	7586.00	9011.40	2276.10	7549.00	7586.00	9236.78	2468.87	90.00	296.57	6658.68	0.04	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 11 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Facility: SEC.35-T1S-R66W Slot: SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) Well: BOX ELDER FARMS 41-35 #5 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	7586.00	9111.40	2276.00	7549.00	7586.00	9236.78	2468.87	90.00	230.04	8612.65	0.03	FAIL
17713.00†	7586.00	9211.40	2275.90	7549.00	7586.00	9236.78	2468.87	90.00	194.63	10218.60	0.02	FAIL
17736.78†	7586.00	9235.18	2275.88	7546.84	7583.84	9236.78	2468.87	89.36	193.01	10311.64	0.02	FAIL
17738.96†	7586.00	9237.36	2275.88	7549.00	7586.00	9236.78	2468.87	90.00	193.00	10316.17	0.02	FAIL
17813.00†	7586.00	9311.40	2275.80	7549.00	7586.00	9236.78	2468.87	90.00	206.99	9649.47	0.02	FAIL
17913.00†	7586.00	9411.40	2275.71	7549.00	7586.00	9236.78	2468.87	90.00	260.40	7705.39	0.03	FAIL
18013.00†	7586.00	9511.40	2275.61	7549.00	7586.00	9236.78	2468.87	90.00	335.81	6003.73	0.06	FAIL
18099.99	7586.00	9598.39	2275.52	7549.00	7586.00	9236.78	2468.87	90.00	410.06	4938.00	0.08	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 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: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8315.00	BHI Drift Indicator - Estimated Azimuth (Standard)	ASSUMED VERTICAL TO TD <8315>	BOX ELDER FARMS 41-35 #5 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS 41-35 #5 AWB Offset Wellpath: BOX ELDER FARMS 41-35 #5BOX ELDER FARMS 41-35 #5 AWP

MD Reference: Rig on SLOT#01 EX BOX ELDER FARMS 41-35 #5 (660'FNL & 660'FEL, SEC.35, PA, 8315) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 12 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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	3.00	13.00	6610.26	2474.68	20.52	7058.30	50.08	143.23	PASS
113.00†	113.00	0.00	0.00	103.00	113.00	6610.26	2474.68	20.52	7058.30	52.42	136.73	PASS
213.00†	213.00	0.00	0.00	203.00	213.00	6610.26	2474.68	20.52	7058.30	54.77	130.78	PASS
313.00†	313.00	0.00	0.00	303.00	313.00	6610.26	2474.68	20.52	7058.30	57.12	125.32	PASS
413.00†	413.00	0.00	0.00	403.00	413.00	6610.26	2474.68	20.52	7058.30	59.47	120.29	PASS
513.00†	513.00	0.00	0.00	503.00	513.00	6610.26	2474.68	20.52	7058.30	61.83	115.64	PASS
613.00†	613.00	0.00	0.00	603.00	613.00	6610.26	2474.68	20.52	7058.30	64.19	111.33	PASS
713.00†	713.00	0.00	0.00	703.00	713.00	6610.26	2474.68	20.52	7058.30	66.56	107.32	PASS
813.00†	813.00	0.00	0.00	803.00	813.00	6610.26	2474.68	20.52	7058.30	68.93	103.59	PASS
913.00†	913.00	0.00	0.00	903.00	913.00	6610.26	2474.68	20.52	7058.30	71.31	100.10	PASS
1013.00†	1013.00	0.00	0.00	1003.00	1013.00	6610.26	2474.68	20.52	7058.30	73.69	96.83	PASS
1100.00	1100.00	0.00	0.00	1090.00	1100.00	6610.26	2474.68	20.52	7058.30	75.76	94.15	PASS
1113.00†	1113.00	-0.01	0.03	1103.00	1113.00	6610.26	2474.68	-88.36	7058.30	76.07	93.77	PASS
1213.00†	1212.97	-0.72	2.11	1202.97	1212.97	6610.26	2474.68	-88.38	7058.23	78.45	90.89	PASS
1313.00†	1312.80	-2.56	7.49	1302.80	1312.80	6610.26	2474.68	-88.43	7058.08	80.84	88.17	PASS
1413.00†	1412.38	-5.53	16.16	1402.38	1412.38	6610.26	2474.68	-88.51	7057.83	83.23	85.61	PASS
1513.00†	1511.57	-9.62	28.12	1501.57	1511.57	6610.26	2474.68	-88.61	7057.51	85.62	83.20	PASS
1613.00†	1610.26	-14.83	43.34	1600.26	1610.26	6610.26	2474.68	-88.75	7057.13	88.02	80.91	PASS
1713.00†	1708.33	-21.14	61.82	1698.33	1708.33	6610.26	2474.68	-88.91	7056.73	90.42	78.73	PASS
1813.00†	1805.66	-28.57	83.52	1795.66	1805.66	6610.26	2474.68	-89.10	7056.32	92.74	76.66	PASS
1913.00†	1902.13	-37.09	108.42	1892.13	1902.13	6610.26	2474.68	-89.32	7055.95	95.18	74.68	PASS
2013.00†	1997.62	-46.69	136.49	1987.62	1997.62	6610.26	2474.68	-89.55	7055.64	97.64	72.79	PASS
2113.00†	2092.02	-57.36	167.70	2082.02	2092.02	6610.26	2474.68	-89.81	7055.45	100.13	70.96	PASS
2209.17	2181.66	-68.63	200.64	2171.66	2181.66	6610.26	2474.68	-90.07	7055.41	102.57	69.26	PASS
2213.00†	2185.21	-69.10	202.01	2175.21	2185.21	6610.26	2474.68	-90.09	7055.41	102.67	69.19	PASS
2313.00†	2277.81	-81.32	237.73	2267.81	2277.81	6610.26	2474.68	-90.37	7055.57	105.26	67.48	PASS
2413.00†	2370.41	-93.54	273.46	2360.41	2370.41	6610.26	2474.68	-90.65	7055.94	107.90	65.82	PASS
2513.00†	2463.01	-105.76	309.18	2453.01	2463.01	6610.26	2474.68	-90.94	7056.50	110.60	64.21	PASS
2613.00†	2555.60	-117.97	344.91	2545.60	2555.60	6610.26	2474.68	-91.22	7057.27	113.34	62.65	PASS
2713.00†	2648.20	-130.19	380.63	2638.20	2648.20	6610.26	2474.68	-91.51	7058.24	116.12	61.15	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 13 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2740.80	-142.41	416.36	2730.80	2740.80	6610.26	2474.68	-91.79	7059.41	118.95	59.70	PASS
2913.00†	2833.40	-154.63	452.08	2823.40	2833.40	6610.26	2474.68	-92.07	7060.78	121.81	58.30	PASS
3013.00†	2926.00	-166.85	487.81	2916.00	2926.00	6610.26	2474.68	-92.36	7062.36	124.71	56.95	PASS
3113.00†	3018.59	-179.07	523.53	3008.59	3018.59	6610.26	2474.68	-92.64	7064.14	127.64	55.65	PASS
3213.00†	3111.19	-191.29	559.26	3101.19	3111.19	6610.26	2474.68	-92.92	7066.11	130.60	54.39	PASS
3313.00†	3203.79	-203.51	594.98	3193.79	3203.79	6610.26	2474.68	-93.21	7068.29	133.59	53.19	PASS
3413.00†	3296.39	-215.73	630.71	3286.39	3296.39	6610.26	2474.68	-93.49	7070.67	136.61	52.02	PASS
3513.00†	3388.99	-227.95	666.43	3378.99	3388.99	6610.26	2474.68	-93.77	7073.25	139.65	50.90	PASS
3613.00†	3481.59	-240.17	702.16	3471.59	3481.59	6610.26	2474.68	-94.05	7076.03	142.71	49.83	PASS
3713.00†	3574.18	-252.39	737.88	3564.18	3574.18	6610.26	2474.68	-94.34	7079.01	145.79	48.79	PASS
3813.00†	3666.78	-264.61	773.61	3656.78	3666.78	6610.26	2474.68	-94.62	7082.20	148.89	47.79	PASS
3913.00†	3759.38	-276.83	809.33	3749.38	3759.38	6610.26	2474.68	-94.90	7085.58	152.01	46.83	PASS
4013.00†	3851.98	-289.05	845.06	3841.98	3851.98	6610.26	2474.68	-95.18	7089.16	155.14	45.90	PASS
4113.00†	3944.58	-301.27	880.78	3934.58	3944.58	6610.26	2474.68	-95.46	7092.94	158.29	45.01	PASS
4213.00†	4037.17	-313.49	916.51	4027.17	4037.17	6610.26	2474.68	-95.74	7096.92	161.45	44.15	PASS
4313.00†	4129.77	-325.71	952.23	4119.77	4129.77	6610.26	2474.68	-96.03	7101.09	164.62	43.32	PASS
4413.00†	4222.37	-337.93	987.96	4212.37	4222.37	6610.26	2474.68	-96.31	7105.47	167.80	42.52	PASS
4513.00†	4314.97	-350.15	1023.68	4304.97	4314.97	6610.26	2474.68	-96.59	7110.04	170.99	41.75	PASS
4613.00†	4407.57	-362.37	1059.41	4397.57	4407.57	6610.26	2474.68	-96.87	7114.81	174.19	41.01	PASS
4713.00†	4500.16	-374.59	1095.13	4490.16	4500.16	6610.26	2474.68	-97.15	7119.78	177.40	40.29	PASS
4813.00†	4592.76	-386.81	1130.86	4582.76	4592.76	6610.26	2474.68	-97.43	7124.94	180.62	39.60	PASS
4913.00†	4685.36	-399.03	1166.58	4675.36	4685.36	6610.26	2474.68	-97.70	7130.30	183.84	38.93	PASS
5013.00†	4777.96	-411.25	1202.31	4767.96	4777.96	6610.26	2474.68	-97.98	7135.86	187.06	38.29	PASS
5113.00†	4870.56	-423.47	1238.03	4860.56	4870.56	6610.26	2474.68	-98.26	7141.61	190.30	37.67	PASS
5213.00†	4963.15	-435.69	1273.76	4953.15	4963.15	6610.26	2474.68	-98.54	7147.56	193.54	37.06	PASS
5313.00†	5055.75	-447.91	1309.48	5045.75	5055.75	6610.26	2474.68	-98.82	7153.70	196.78	36.48	PASS
5413.00†	5148.35	-460.13	1345.21	5138.35	5148.35	6610.26	2474.68	-99.09	7160.03	200.02	35.92	PASS
5513.00†	5240.95	-472.35	1380.93	5230.95	5240.95	6610.26	2474.68	-99.37	7166.56	203.27	35.38	PASS
5613.00†	5333.55	-484.56	1416.66	5323.55	5333.55	6610.26	2474.68	-99.65	7173.28	206.52	34.85	PASS
5713.00†	5426.14	-496.78	1452.38	5416.14	5426.14	6610.26	2474.68	-99.92	7180.19	209.78	34.34	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 14 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5518.74	-509.00	1488.11	5508.74	5518.74	6610.26	2474.68	-100.20	7187.30	213.03	33.85	PASS
5913.00†	5611.34	-521.22	1523.83	5601.34	5611.34	6610.26	2474.68	-100.47	7194.59	216.29	33.37	PASS
6013.00†	5703.94	-533.44	1559.56	5693.94	5703.94	6610.26	2474.68	-100.75	7202.08	219.55	32.91	PASS
6113.00†	5796.54	-545.66	1595.28	5786.54	5796.54	6610.26	2474.68	-101.02	7209.76	222.81	32.46	PASS
6213.00†	5889.13	-557.88	1631.01	5879.13	5889.13	6610.26	2474.68	-101.29	7217.62	226.07	32.02	PASS
6313.00†	5981.73	-570.10	1666.73	5971.73	5981.73	6610.26	2474.68	-101.57	7225.68	229.33	31.60	PASS
6413.00†	6074.33	-582.32	1702.46	6064.33	6074.33	6610.26	2474.68	-101.84	7233.92	232.59	31.19	PASS
6513.00†	6166.93	-594.54	1738.18	6156.93	6166.93	6610.26	2474.68	-102.11	7242.35	235.85	30.80	PASS
6613.00†	6259.53	-606.76	1773.91	6249.53	6259.53	6610.26	2474.68	-102.38	7250.96	239.11	30.41	PASS
6713.00†	6352.13	-618.98	1809.63	6342.13	6352.13	6610.26	2474.68	-102.65	7259.77	242.36	30.04	PASS
6813.00†	6444.72	-631.20	1845.36	6434.72	6444.72	6610.26	2474.68	-102.92	7268.76	245.62	29.68	PASS
6913.00†	6537.32	-643.42	1881.08	6527.32	6537.32	6610.26	2474.68	-103.19	7277.93	248.88	29.32	PASS
7013.00†	6629.92	-655.64	1916.81	6619.92	6629.92	6610.26	2474.68	-103.46	7287.29	252.14	28.98	PASS
7113.00†	6722.52	-667.86	1952.53	6712.52	6722.52	6610.26	2474.68	-103.73	7296.83	255.39	28.65	PASS
7213.00†	6815.12	-680.08	1988.26	6805.12	6815.12	6610.26	2474.68	-104.00	7306.55	258.64	28.32	PASS
7313.00†	6907.71	-692.30	2023.98	6897.71	6907.71	6610.26	2474.68	-104.26	7316.45	261.89	28.01	PASS
7397.45	6985.91	-702.62	2054.15	6975.91	6985.91	6610.26	2474.68	-104.49	7324.96	264.64	27.75	PASS
7413.00†	7000.33	-704.31	2059.72	6990.33	7000.33	6610.26	2474.68	-100.83	7326.33	265.14	27.70	PASS
7513.00†	7093.51	-705.12	2095.66	7083.51	7093.51	6610.26	2474.68	-75.63	7325.19	268.50	27.35	PASS
7613.00†	7185.41	-688.57	2131.08	7175.41	7185.41	6610.26	2474.68	-54.32	7306.92	272.11	26.92	PASS
7713.00†	7273.24	-655.17	2164.92	7263.24	7273.24	6610.26	2474.68	-40.33	7272.03	275.56	26.46	PASS
7813.00†	7354.33	-605.94	2196.15	7344.33	7354.33	6610.26	2474.68	-31.65	7221.57	278.67	25.98	PASS
7913.00†	7426.22	-542.36	2223.81	7416.22	7426.22	6610.26	2474.68	-26.08	7157.02	281.34	25.50	PASS
8013.00†	7486.72	-466.38	2247.07	7476.72	7486.72	6610.26	2474.68	-22.24	7080.30	283.53	25.03	PASS
8113.00†	7533.99	-380.29	2265.22	7523.99	7533.99	6610.26	2474.68	-19.20	6993.69	285.18	24.58	PASS
8213.00†	7566.60	-286.72	2277.70	7556.60	7566.60	6610.26	2474.68	-15.68	6899.80	286.26	24.16	PASS
8313.00†	7583.55	-188.51	2284.15	7573.55	7583.55	6610.26	2474.68	-3.56	6801.44	286.78	23.77	PASS
8367.84	7586.00	-133.75	2285.04	7576.00	7586.00	6610.26	2474.68	90.00	6746.68	286.82	23.58	PASS
8413.00†	7586.00	-88.59	2284.99	7576.00	7586.00	6610.26	2474.68	90.00	6701.54	286.79	23.42	PASS
8513.00†	7586.00	11.41	2284.90	7576.00	7586.00	6610.26	2474.68	90.00	6601.58	286.72	23.08	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 15 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
8613.00†	7586.00	111.41	2284.80	7576.00	7586.00	6610.26	2474.68	90.00	6501.63	286.64	22.74	PASS
8713.00†	7586.00	211.41	2284.70	7576.00	7586.00	6610.26	2474.68	90.00	6401.67	286.56	22.39	PASS
8813.00†	7586.00	311.41	2284.60	7576.00	7586.00	6610.26	2474.68	90.00	6301.72	286.48	22.05	PASS
8913.00†	7586.00	411.41	2284.51	7576.00	7586.00	6610.26	2474.68	90.00	6201.77	286.40	21.71	PASS
9013.00†	7586.00	511.41	2284.41	7576.00	7586.00	6610.26	2474.68	90.00	6101.82	286.32	21.36	PASS
9113.00†	7586.00	611.41	2284.31	7576.00	7586.00	6610.26	2474.68	90.00	6001.87	286.23	21.02	PASS
9213.00†	7586.00	711.41	2284.21	7576.00	7586.00	6610.26	2474.68	90.00	5901.93	286.14	20.67	PASS
9313.00†	7586.00	811.41	2284.11	7576.00	7586.00	6610.26	2474.68	90.00	5801.99	286.05	20.33	PASS
9413.00†	7586.00	911.41	2284.02	7576.00	7586.00	6610.26	2474.68	90.00	5702.04	285.96	19.99	PASS
9513.00†	7586.00	1011.41	2283.92	7576.00	7586.00	6610.26	2474.68	90.00	5602.10	285.86	19.64	PASS
9613.00†	7586.00	1111.41	2283.82	7576.00	7586.00	6610.26	2474.68	90.00	5502.17	285.76	19.30	PASS
9713.00†	7586.00	1211.41	2283.72	7576.00	7586.00	6610.26	2474.68	90.00	5402.23	285.66	18.96	PASS
9813.00†	7586.00	1311.41	2283.63	7576.00	7586.00	6610.26	2474.68	90.00	5302.30	285.55	18.61	PASS
9913.00†	7586.00	1411.41	2283.53	7576.00	7586.00	6610.26	2474.68	90.00	5202.37	285.44	18.27	PASS
10013.00†	7586.00	1511.41	2283.43	7576.00	7586.00	6610.26	2474.68	90.00	5102.44	285.33	17.92	PASS
10113.00†	7586.00	1611.41	2283.33	7576.00	7586.00	6610.26	2474.68	90.00	5002.52	285.21	17.58	PASS
10213.00†	7586.00	1711.41	2283.23	7576.00	7586.00	6610.26	2474.68	90.00	4902.59	285.09	17.24	PASS
10313.00†	7586.00	1811.40	2283.14	7576.00	7586.00	6610.26	2474.68	90.00	4802.68	284.96	16.89	PASS
10413.00†	7586.00	1911.40	2283.04	7576.00	7586.00	6610.26	2474.68	90.00	4702.76	284.83	16.55	PASS
10513.00†	7586.00	2011.40	2282.94	7576.00	7586.00	6610.26	2474.68	90.00	4602.85	284.69	16.21	PASS
10613.00†	7586.00	2111.40	2282.84	7576.00	7586.00	6610.26	2474.68	90.00	4502.94	284.55	15.86	PASS
10713.00†	7586.00	2211.40	2282.75	7576.00	7586.00	6610.26	2474.68	90.00	4403.04	284.40	15.52	PASS
10813.00†	7586.00	2311.40	2282.65	7576.00	7586.00	6610.26	2474.68	90.00	4303.14	284.25	15.17	PASS
10913.00†	7586.00	2411.40	2282.55	7576.00	7586.00	6610.26	2474.68	90.00	4203.25	284.08	14.83	PASS
11013.00†	7586.00	2511.40	2282.45	7576.00	7586.00	6610.26	2474.68	90.00	4103.36	283.91	14.49	PASS
11113.00†	7586.00	2611.40	2282.35	7576.00	7586.00	6610.26	2474.68	90.00	4003.48	283.73	14.14	PASS
11213.00†	7586.00	2711.40	2282.26	7576.00	7586.00	6610.26	2474.68	90.00	3903.60	283.54	13.80	PASS
11313.00†	7586.00	2811.40	2282.16	7576.00	7586.00	6610.26	2474.68	90.00	3803.73	283.34	13.46	PASS
11413.00†	7586.00	2911.40	2282.06	7576.00	7586.00	6610.26	2474.68	90.00	3703.87	283.13	13.11	PASS
11513.00†	7586.00	3011.40	2281.96	7576.00	7586.00	6610.26	2474.68	90.00	3604.01	282.91	12.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 16 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
11613.00†	7586.00	3111.40	2281.87	7576.00	7586.00	6610.26	2474.68	90.00	3504.16	282.68	12.42	PASS
11713.00†	7586.00	3211.40	2281.77	7576.00	7586.00	6610.26	2474.68	90.00	3404.33	282.43	12.08	PASS
11813.00†	7586.00	3311.40	2281.67	7576.00	7586.00	6610.26	2474.68	90.00	3304.50	282.17	11.74	PASS
11913.00†	7586.00	3411.40	2281.57	7576.00	7586.00	6610.26	2474.68	90.00	3204.68	281.89	11.39	PASS
12013.00†	7586.00	3511.40	2281.47	7576.00	7586.00	6610.26	2474.68	90.00	3104.87	281.60	11.05	PASS
12113.00†	7586.00	3611.40	2281.38	7576.00	7586.00	6610.26	2474.68	90.00	3005.08	281.28	10.71	PASS
12213.00†	7586.00	3711.40	2281.28	7576.00	7586.00	6610.26	2474.68	90.00	2905.30	280.94	10.36	PASS
12313.00†	7586.00	3811.40	2281.18	7576.00	7586.00	6610.26	2474.68	90.00	2805.54	280.58	10.02	PASS
12413.00†	7586.00	3911.40	2281.08	7576.00	7586.00	6610.26	2474.68	90.00	2705.79	280.19	9.68	PASS
12513.00†	7586.00	4011.40	2280.99	7576.00	7586.00	6610.26	2474.68	90.00	2606.06	279.77	9.34	PASS
12613.00†	7586.00	4111.40	2280.89	7576.00	7586.00	6610.26	2474.68	90.00	2506.36	279.32	8.99	PASS
12713.00†	7586.00	4211.40	2280.79	7576.00	7586.00	6610.26	2474.68	90.00	2406.68	278.83	8.65	PASS
12813.00†	7586.00	4311.40	2280.69	7576.00	7586.00	6610.26	2474.68	90.00	2307.03	278.30	8.31	PASS
12913.00†	7586.00	4411.40	2280.59	7576.00	7586.00	6610.26	2474.68	90.00	2207.41	277.73	7.97	PASS
13013.00†	7586.00	4511.40	2280.50	7576.00	7586.00	6610.26	2474.68	90.00	2107.82	277.10	7.62	PASS
13113.00†	7586.00	4611.40	2280.40	7576.00	7586.00	6610.26	2474.68	90.00	2008.28	276.41	7.28	PASS
13213.00†	7586.00	4711.40	2280.30	7576.00	7586.00	6610.26	2474.68	90.00	1908.78	275.66	6.94	PASS
13313.00†	7586.00	4811.40	2280.20	7576.00	7586.00	6610.26	2474.68	90.00	1809.34	274.82	6.60	PASS
13413.00†	7586.00	4911.40	2280.11	7576.00	7586.00	6610.26	2474.68	90.00	1709.96	273.90	6.26	PASS
13513.00†	7586.00	5011.40	2280.01	7576.00	7586.00	6610.26	2474.68	90.00	1610.66	272.87	5.92	PASS
13613.00†	7586.00	5111.40	2279.91	7576.00	7586.00	6610.26	2474.68	90.00	1511.46	271.73	5.57	PASS
13713.00†	7586.00	5211.40	2279.81	7576.00	7586.00	6610.26	2474.68	90.00	1412.36	270.44	5.23	PASS
13813.00†	7586.00	5311.40	2279.71	7576.00	7586.00	6610.26	2474.68	90.00	1313.41	269.00	4.89	PASS
13913.00†	7586.00	5411.40	2279.62	7576.00	7586.00	6610.26	2474.68	90.00	1214.62	267.37	4.55	PASS
14013.00†	7586.00	5511.40	2279.52	7576.00	7586.00	6610.26	2474.68	90.00	1116.05	265.52	4.21	PASS
14113.00†	7586.00	5611.40	2279.42	7576.00	7586.00	6610.26	2474.68	90.00	1017.76	263.44	3.87	PASS
14213.00†	7586.00	5711.40	2279.32	7576.00	7586.00	6610.26	2474.68	90.00	919.84	261.12	3.53	PASS
14313.00†	7586.00	5811.40	2279.23	7576.00	7586.00	6610.26	2474.68	90.00	822.42	258.61	3.19	PASS
14413.00†	7586.00	5911.40	2279.13	7576.00	7586.00	6610.26	2474.68	90.00	725.70	256.09	2.84	PASS
14513.00†	7586.00	6011.40	2279.03	7576.00	7586.00	6610.26	2474.68	90.00	630.01	254.12	2.48	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 17 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#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
14613.00†	7586.00	6111.40	2278.93	7576.00	7586.00	6610.26	2474.68	90.00	535.89	254.11	2.11	PASS
14713.00†	7586.00	6211.40	2278.83	7576.00	7586.00	6610.26	2474.68	90.00	444.34	259.20	1.72	PASS
14813.00†	7586.00	6311.40	2278.74	7576.00	7586.00	6610.26	2474.68	90.00	357.36	274.80	1.30	PASS
14913.00†	7586.00	6411.40	2278.64	7576.00	7586.00	6610.26	2474.68	90.00	279.24	307.74	0.91	FAIL
15013.00†	7586.00	6511.40	2278.54	7576.00	7586.00	6610.26	2474.68	90.00	219.64	361.73	0.61	FAIL
15111.64†	7586.00	6610.05	2278.44	7575.93	7585.93	6610.26	2474.68	89.98	196.23	414.99	0.47	FAIL
15113.00†	7586.00	6611.40	2278.44	7576.00	7586.00	6610.26	2474.68	90.00	196.24	415.48	0.47	FAIL
15134.41†	7586.00	6632.81	2278.42	7576.00	7586.00	6610.26	2474.68	90.00	197.55	422.00	0.47	FAIL
15213.00†	7586.00	6711.40	2278.35	7576.00	7586.00	6610.26	2474.68	90.00	220.85	425.94	0.52	FAIL
15313.00†	7586.00	6811.40	2278.25	7576.00	7586.00	6610.26	2474.68	90.00	281.15	406.49	0.69	FAIL
15413.00†	7586.00	6911.40	2278.15	7576.00	7586.00	6610.26	2474.68	90.00	359.60	385.04	0.93	FAIL
15513.00†	7586.00	7011.40	2278.05	7576.00	7586.00	6610.26	2474.68	90.00	446.74	368.42	1.21	PASS
15613.00†	7586.00	7111.40	2277.95	7576.00	7586.00	6610.26	2474.68	90.00	538.37	356.20	1.51	PASS
15713.00†	7586.00	7211.40	2277.86	7576.00	7586.00	6610.26	2474.68	90.00	632.54	347.11	1.82	PASS
15813.00†	7586.00	7311.40	2277.76	7576.00	7586.00	6610.26	2474.68	90.00	728.27	340.19	2.14	PASS
15913.00†	7586.00	7411.40	2277.66	7576.00	7586.00	6610.26	2474.68	90.00	825.01	334.78	2.47	PASS
16013.00†	7586.00	7511.40	2277.56	7576.00	7586.00	6610.26	2474.68	90.00	922.45	330.47	2.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 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: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 18 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#1 AWP

MD Reference: Rig on SLOT#02 EX CHAMPLIN 117 AMOCO G#1 (1980'FSL & 660'FEL, SEC.35, PA,8360) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 19 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH 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	0.02	15.01	89.93	15.01	1.40	23.68	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.02	15.01	89.93	15.01	1.72	15.52	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.02	15.01	89.93	15.01	2.28	9.60	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.02	15.01	89.93	15.01	2.88	6.83	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.02	15.01	89.93	15.01	3.50	5.27	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.02	15.01	89.93	15.01	4.12	4.29	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.02	15.01	89.93	15.01	4.74	3.61	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.02	15.01	89.93	15.01	5.36	3.12	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.02	15.01	89.93	15.01	5.99	2.74	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	0.02	15.01	89.93	15.01	6.61	2.45	PASS
1013.00†	1013.00	0.00	0.00	1012.94	1012.94	0.01	15.04	89.96	15.04	7.24	2.21	PASS
1100.00	1100.00	0.00	0.00	1099.46	1099.44	-0.51	16.65	91.77	16.67	7.87	2.25	PASS
1113.00†	1113.00	-0.01	0.03	1112.38	1112.35	-0.66	17.11	-16.69	17.10	7.96	2.28	PASS
1213.00†	1212.97	-0.72	2.11	1211.69	1211.50	-2.40	22.45	-14.15	20.46	9.02	2.39	PASS
1313.00†	1312.80	-2.56	7.49	1310.89	1310.28	-5.19	31.04	-12.46	23.83	10.26	2.44	PASS
1413.00†	1412.38	-5.53	16.16	1409.96	1408.56	-9.03	42.86	-11.31	27.20	11.39	2.49	PASS
1513.00†	1511.57	-9.62	28.12	1508.92	1506.25	-13.91	57.89	-10.52	30.55	12.44	2.56	PASS
1613.00†	1610.26	-14.83	43.34	1607.77	1603.22	-19.82	76.10	-9.99	33.87	13.45	2.61	PASS
1713.00†	1708.33	-21.14	61.82	1706.51	1699.37	-26.76	97.45	-9.64	37.17	14.41	2.67	PASS
1813.00†	1805.66	-28.57	83.52	1805.13	1794.57	-34.70	121.91	-9.43	40.43	15.26	2.73	PASS
1913.00†	1902.13	-37.09	108.42	1903.65	1888.74	-43.64	149.44	-9.33	43.65	16.18	2.78	PASS
2013.00†	1997.62	-46.69	136.49	2002.06	1981.75	-53.57	180.00	-9.31	46.82	17.08	2.82	PASS
2113.00†	2092.02	-57.36	167.70	2100.37	2073.51	-64.46	213.54	-9.36	49.94	18.03	2.84	PASS
2209.17	2181.66	-68.63	200.64	2195.40	2161.08	-75.86	248.63	-9.49	52.72	18.87	2.86	PASS
2213.00†	2185.21	-69.10	202.01	2199.23	2164.60	-76.33	250.07	-9.50	52.80	18.90	2.86	PASS
2313.00†	2277.81	-81.32	237.73	2299.21	2256.46	-88.52	287.62	-9.81	54.74	19.65	2.85	PASS
2413.00†	2370.41	-93.54	273.46	2399.19	2348.31	-100.72	325.17	-10.10	56.69	20.44	2.84	PASS
2513.00†	2463.01	-105.76	309.18	2499.17	2440.17	-112.92	362.72	-10.37	58.65	21.27	2.82	PASS
2613.00†	2555.60	-117.97	344.91	2599.15	2532.02	-125.11	400.27	-10.62	60.60	22.14	2.79	PASS
2713.00†	2648.20	-130.19	380.63	2699.13	2623.88	-137.31	437.82	-10.85	62.55	23.04	2.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 20 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)												
Facility: SEC.02-T03S-R66W		Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02)		Well: ACKARD NORTH 2-35-4NAH		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†	2740.80	-142.41	416.36	2799.11	2715.73	-149.51	475.37	-11.08	64.51	23.97	2.74	PASS
2913.00†	2833.40	-154.63	452.08	2899.09	2807.59	-161.70	512.92	-11.28	66.47	24.93	2.71	PASS
3013.00†	2926.00	-166.85	487.81	2999.07	2899.44	-173.90	550.47	-11.48	68.42	25.91	2.69	PASS
3113.00†	3018.59	-179.07	523.53	3099.06	2991.30	-186.09	588.02	-11.67	70.38	26.91	2.66	PASS
3213.00†	3111.19	-191.29	559.26	3199.04	3083.15	-198.29	625.57	-11.84	72.34	27.94	2.63	PASS
3313.00†	3203.79	-203.51	594.98	3299.02	3175.01	-210.49	663.12	-12.01	74.30	28.98	2.60	PASS
3413.00†	3296.39	-215.73	630.71	3399.00	3266.86	-222.68	700.67	-12.17	76.26	30.04	2.58	PASS
3513.00†	3388.99	-227.95	666.43	3498.98	3358.72	-234.88	738.22	-12.32	78.22	31.11	2.55	PASS
3613.00†	3481.59	-240.17	702.16	3598.96	3450.57	-247.07	775.77	-12.46	80.18	32.19	2.52	PASS
3713.00†	3574.18	-252.39	737.88	3698.94	3542.43	-259.27	813.32	-12.59	82.14	33.29	2.50	PASS
3813.00†	3666.78	-264.61	773.61	3798.92	3634.29	-271.47	850.87	-12.72	84.10	34.40	2.48	PASS
3913.00†	3759.38	-276.83	809.33	3898.90	3726.14	-283.66	888.42	-12.85	86.06	35.52	2.45	PASS
4013.00†	3851.98	-289.05	845.06	3998.88	3818.00	-295.86	925.97	-12.97	88.02	36.65	2.43	PASS
4113.00†	3944.58	-301.27	880.78	4098.86	3909.85	-308.05	963.52	-13.08	89.99	37.79	2.41	PASS
4213.00†	4037.17	-313.49	916.51	4198.84	4001.71	-320.25	1001.07	-13.19	91.95	38.94	2.39	PASS
4313.00†	4129.77	-325.71	952.23	4298.82	4093.56	-332.45	1038.62	-13.29	93.91	40.09	2.37	PASS
4413.00†	4222.37	-337.93	987.96	4398.80	4185.42	-344.64	1076.17	-13.39	95.88	41.25	2.35	PASS
4513.00†	4314.97	-350.15	1023.68	4498.78	4277.27	-356.84	1113.72	-13.48	97.84	42.42	2.33	PASS
4613.00†	4407.57	-362.37	1059.41	4598.76	4369.13	-369.04	1151.27	-13.58	99.81	43.60	2.31	PASS
4713.00†	4500.16	-374.59	1095.13	4698.74	4460.98	-381.23	1188.82	-13.66	101.77	44.78	2.29	PASS
4813.00†	4592.76	-386.81	1130.86	4798.73	4552.84	-393.43	1226.37	-13.75	103.73	45.96	2.28	PASS
4913.00†	4685.36	-399.03	1166.58	4898.71	4644.69	-405.62	1263.92	-13.83	105.70	47.15	2.26	PASS
5013.00†	4777.96	-411.25	1202.31	4998.69	4736.55	-417.82	1301.47	-13.91	107.66	48.35	2.25	PASS
5113.00†	4870.56	-423.47	1238.03	5098.67	4828.40	-430.02	1339.02	-13.98	109.63	49.55	2.23	PASS
5213.00†	4963.15	-435.69	1273.76	5198.65	4920.26	-442.21	1376.57	-14.06	111.60	50.75	2.22	PASS
5313.00†	5055.75	-447.91	1309.48	5298.63	5012.11	-454.41	1414.12	-14.13	113.56	51.96	2.20	PASS
5413.00†	5148.35	-460.13	1345.21	5398.61	5103.97	-466.60	1451.67	-14.20	115.53	53.17	2.19	PASS
5513.00†	5240.95	-472.35	1380.93	5498.59	5195.82	-478.80	1489.22	-14.26	117.49	54.38	2.18	PASS
5613.00†	5333.55	-484.56	1416.66	5598.57	5287.68	-491.00	1526.77	-14.33	119.46	55.60	2.16	PASS
5713.00†	5426.14	-496.78	1452.38	5698.55	5379.53	-503.19	1564.32	-14.39	121.43	56.82	2.15	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 21 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5518.74	-509.00	1488.11	5798.53	5471.39	-515.39	1601.87	-14.45	123.39	58.04	2.14	PASS
5913.00†	5611.34	-521.22	1523.83	5898.51	5563.24	-527.58	1639.42	-14.51	125.36	59.27	2.13	PASS
6013.00†	5703.94	-533.44	1559.56	5998.49	5655.10	-539.78	1676.97	-14.56	127.33	60.49	2.12	PASS
6113.00†	5796.54	-545.66	1595.28	6098.47	5746.95	-551.98	1714.52	-14.62	129.29	61.72	2.11	PASS
6213.00†	5889.13	-557.88	1631.01	6198.45	5838.81	-564.17	1752.07	-14.67	131.26	62.96	2.10	PASS
6313.00†	5981.73	-570.10	1666.73	6298.43	5930.66	-576.37	1789.62	-14.72	133.23	64.19	2.09	PASS
6413.00†	6074.33	-582.32	1702.46	6398.41	6022.52	-588.56	1827.17	-14.77	135.19	65.43	2.08	PASS
6513.00†	6166.93	-594.54	1738.18	6498.40	6114.37	-600.76	1864.72	-14.82	137.16	66.67	2.07	PASS
6613.00†	6259.53	-606.76	1773.91	6598.38	6206.23	-612.96	1902.27	-14.86	139.13	67.91	2.06	PASS
6713.00†	6352.13	-618.98	1809.63	6698.36	6298.08	-625.15	1939.82	-14.91	141.09	69.15	2.05	PASS
6813.00†	6444.72	-631.20	1845.36	6798.34	6389.94	-637.35	1977.37	-14.95	143.06	70.39	2.04	PASS
6913.00†	6537.32	-643.42	1881.08	6898.32	6481.79	-649.55	2014.92	-15.00	145.03	71.64	2.03	PASS
7013.00†	6629.92	-655.64	1916.81	6998.30	6573.65	-661.74	2052.47	-15.04	147.00	72.89	2.03	PASS
7113.00†	6722.52	-667.86	1952.53	7098.28	6665.51	-673.94	2090.02	-15.08	148.97	74.14	2.02	PASS
7213.00†	6815.12	-680.08	1988.26	7198.26	6757.36	-686.13	2127.57	-15.12	150.93	75.39	2.01	PASS
7313.00†	6907.71	-692.30	2023.98	7298.27	6849.25	-698.31	2165.14	-15.17	152.90	76.65	2.00	PASS
7397.45	6985.91	-702.62	2054.15	7382.51	6927.05	-701.71	2197.06	-17.75	154.56	80.49	1.93	PASS
7413.00†	7000.33	-704.31	2059.72	7397.75	6941.12	-701.00	2202.86	-14.95	154.94	81.70	1.90	PASS
7513.00†	7093.51	-705.12	2095.66	7494.31	7029.32	-687.16	2239.35	4.86	158.40	88.87	1.79	PASS
7613.00†	7185.41	-688.57	2131.08	7588.59	7112.08	-658.39	2273.85	21.22	163.32	93.92	1.74	PASS
7713.00†	7273.24	-655.17	2164.92	7680.88	7187.73	-616.36	2305.66	30.84	169.20	95.95	1.77	PASS
7813.00†	7354.33	-605.94	2196.15	7771.51	7254.92	-562.81	2334.19	35.78	175.50	94.91	1.86	PASS
7913.00†	7426.22	-542.36	2223.81	7860.76	7312.58	-499.49	2358.97	38.24	181.71	91.39	2.00	PASS
8013.00†	7486.72	-466.38	2247.07	7948.92	7359.88	-428.12	2379.63	39.47	187.41	86.33	2.18	PASS
8113.00†	7533.99	-380.29	2265.22	8036.27	7396.18	-350.44	2395.87	40.13	192.23	80.97	2.39	PASS
8213.00†	7566.60	-286.72	2277.70	8123.10	7420.99	-268.13	2407.47	40.55	195.92	76.62	2.57	PASS
8313.00†	7583.55	-188.51	2284.15	8209.65	7433.97	-182.92	2414.25	40.90	198.33	74.44	2.68	PASS
8367.84	7586.00	-133.75	2285.04	8257.09	7435.99	-135.56	2415.89	41.10	199.07	74.35	2.69	PASS
8413.00†	7586.00	-88.59	2284.99	8301.82	7436.00	-90.83	2416.65	41.27	199.60	74.90	2.68	PASS
8513.00†	7586.00	11.41	2284.90	8401.80	7436.00	9.14	2418.35	41.66	200.79	76.30	2.65	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 22 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH 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
8613.00†	7586.00	111.41	2284.80	8501.79	7436.00	109.11	2420.05	42.04	201.99	77.92	2.61	PASS
8713.00†	7586.00	211.41	2284.70	8601.77	7436.00	209.08	2421.75	42.42	203.19	79.77	2.56	PASS
8813.00†	7586.00	311.41	2284.60	8701.76	7436.00	309.04	2423.45	42.79	204.41	81.84	2.51	PASS
8913.00†	7586.00	411.41	2284.51	8801.74	7436.00	409.01	2425.15	43.16	205.64	84.23	2.45	PASS
9013.00†	7586.00	511.41	2284.41	8901.72	7436.00	508.98	2426.85	43.52	206.87	86.57	2.40	PASS
9113.00†	7586.00	611.41	2284.31	9001.71	7436.00	608.95	2428.55	43.88	208.11	89.23	2.34	PASS
9213.00†	7586.00	711.41	2284.21	9101.69	7436.00	708.92	2430.25	44.23	209.36	92.06	2.28	PASS
9313.00†	7586.00	811.41	2284.11	9201.68	7436.00	808.89	2431.95	44.58	210.62	95.06	2.22	PASS
9413.00†	7586.00	911.41	2284.02	9301.66	7436.00	908.86	2433.65	44.93	211.89	98.22	2.17	PASS
9513.00†	7586.00	1011.41	2283.92	9401.64	7436.00	1008.83	2435.35	45.27	213.16	101.52	2.11	PASS
9613.00†	7586.00	1111.41	2283.82	9501.63	7436.00	1108.80	2437.05	45.61	214.44	104.97	2.05	PASS
9713.00†	7586.00	1211.41	2283.72	9601.61	7436.00	1208.77	2438.75	45.94	215.73	108.54	1.99	PASS
9813.00†	7586.00	1311.41	2283.63	9701.59	7436.00	1308.74	2440.45	46.27	217.03	112.24	1.94	PASS
9913.00†	7586.00	1411.41	2283.53	9801.58	7436.00	1408.71	2442.15	46.60	218.33	116.06	1.89	PASS
10013.00†	7586.00	1511.41	2283.43	9901.56	7436.00	1508.68	2443.85	46.92	219.64	119.98	1.84	PASS
10113.00†	7586.00	1611.41	2283.33	10001.55	7436.00	1608.65	2445.55	47.24	220.96	124.01	1.79	PASS
10213.00†	7586.00	1711.41	2283.23	10101.53	7436.00	1708.62	2447.25	47.56	222.28	128.13	1.74	PASS
10313.00†	7586.00	1811.40	2283.14	10201.51	7436.00	1808.59	2448.95	47.87	223.61	132.34	1.69	PASS
10413.00†	7586.00	1911.40	2283.04	10301.50	7436.00	1908.56	2450.65	48.17	224.95	136.63	1.65	PASS
10513.00†	7586.00	2011.40	2282.94	10401.48	7436.00	2008.52	2452.35	48.48	226.29	141.01	1.61	PASS
10613.00†	7586.00	2111.40	2282.84	10501.47	7436.00	2108.49	2454.05	48.78	227.64	145.46	1.57	PASS
10713.00†	7586.00	2211.40	2282.75	10601.45	7436.00	2208.46	2455.75	49.07	228.99	149.98	1.53	PASS
10813.00†	7586.00	2311.40	2282.65	10701.43	7436.00	2308.43	2457.44	49.37	230.35	154.57	1.49	PASS
10913.00†	7586.00	2411.40	2282.55	10801.42	7436.00	2408.40	2459.14	49.66	231.72	159.23	1.46	PASS
11013.00†	7586.00	2511.40	2282.45	10901.40	7436.00	2508.37	2460.84	49.94	233.09	163.94	1.42	PASS
11113.00†	7586.00	2611.40	2282.35	11001.38	7436.00	2608.34	2462.54	50.22	234.47	168.71	1.39	PASS
11213.00†	7586.00	2711.40	2282.26	11101.37	7436.00	2708.31	2464.24	50.50	235.86	173.54	1.36	PASS
11313.00†	7586.00	2811.40	2282.16	11201.35	7436.00	2808.28	2465.94	50.78	237.25	178.42	1.33	PASS
11413.00†	7586.00	2911.40	2282.06	11301.34	7436.00	2908.25	2467.64	51.05	238.64	183.35	1.30	PASS
11513.00†	7586.00	3011.40	2281.96	11401.32	7436.00	3008.22	2469.34	51.32	240.04	188.33	1.28	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 23 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH 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
11613.00†	7586.00	3111.40	2281.87	11501.30	7436.00	3108.19	2471.04	51.59	241.45	193.35	1.25	PASS
11713.00†	7586.00	3211.40	2281.77	11601.29	7436.00	3208.16	2472.74	51.85	242.86	198.42	1.22	PASS
11813.00†	7586.00	3311.40	2281.67	11701.27	7436.00	3308.13	2474.44	52.11	244.28	203.52	1.20	PASS
11913.00†	7586.00	3411.40	2281.57	11801.26	7436.00	3408.10	2476.14	52.37	245.70	208.67	1.18	PASS
12013.00†	7586.00	3511.40	2281.47	11901.24	7436.00	3508.07	2477.84	52.62	247.13	213.85	1.16	PASS
12113.00†	7586.00	3611.40	2281.38	12001.22	7436.00	3608.03	2479.54	52.88	248.56	219.07	1.14	PASS
12213.00†	7586.00	3711.40	2281.28	12101.21	7436.00	3708.00	2481.24	53.12	249.99	224.33	1.11	PASS
12313.00†	7586.00	3811.40	2281.18	12201.19	7436.00	3807.97	2482.94	53.37	251.43	229.62	1.10	PASS
12413.00†	7586.00	3911.40	2281.08	12301.17	7436.00	3907.94	2484.64	53.61	252.88	234.94	1.08	PASS
12513.00†	7586.00	4011.40	2280.99	12401.16	7436.00	4007.91	2486.34	53.85	254.33	240.29	1.06	PASS
12613.00†	7586.00	4111.40	2280.89	12501.14	7436.00	4107.88	2488.04	54.09	255.78	245.67	1.04	PASS
12713.00†	7586.00	4211.40	2280.79	12601.13	7436.00	4207.85	2489.74	54.33	257.24	251.08	1.02	PASS
12813.00†	7586.00	4311.40	2280.69	12701.11	7436.00	4307.82	2491.44	54.56	258.70	256.52	1.01	PASS
12913.00†	7586.00	4411.40	2280.59	12801.09	7436.00	4407.79	2493.14	54.79	260.17	261.99	0.99	FAIL
13013.00†	7586.00	4511.40	2280.50	12901.08	7436.00	4507.76	2494.84	55.02	261.64	267.48	0.98	FAIL
13113.00†	7586.00	4611.40	2280.40	13001.06	7436.00	4607.73	2496.54	55.24	263.12	272.99	0.96	FAIL
13213.00†	7586.00	4711.40	2280.30	13101.05	7436.00	4707.70	2498.24	55.46	264.59	278.53	0.95	FAIL
13313.00†	7586.00	4811.40	2280.20	13201.03	7436.00	4807.67	2499.94	55.68	266.08	284.09	0.94	FAIL
13413.00†	7586.00	4911.40	2280.11	13301.01	7436.00	4907.64	2501.64	55.90	267.56	289.68	0.92	FAIL
13513.00†	7586.00	5011.40	2280.01	13401.00	7436.00	5007.61	2503.34	56.11	269.05	295.28	0.91	FAIL
13613.00†	7586.00	5111.40	2279.91	13500.98	7436.00	5107.58	2505.04	56.32	270.55	300.91	0.90	FAIL
13713.00†	7586.00	5211.40	2279.81	13600.96	7436.00	5207.55	2506.74	56.53	272.05	306.55	0.89	FAIL
13813.00†	7586.00	5311.40	2279.71	13700.95	7436.00	5307.51	2508.44	56.74	273.55	312.22	0.88	FAIL
13913.00†	7586.00	5411.40	2279.62	13800.93	7436.00	5407.48	2510.14	56.95	275.05	317.90	0.86	FAIL
14013.00†	7586.00	5511.40	2279.52	13900.92	7436.00	5507.45	2511.84	57.15	276.56	323.60	0.85	FAIL
14113.00†	7586.00	5611.40	2279.42	14000.90	7436.00	5607.42	2513.54	57.35	278.07	329.32	0.84	FAIL
14213.00†	7586.00	5711.40	2279.32	14100.88	7436.00	5707.39	2515.23	57.55	279.59	335.06	0.83	FAIL
14313.00†	7586.00	5811.40	2279.23	14200.87	7436.00	5807.36	2516.93	57.75	281.11	340.81	0.82	FAIL
14413.00†	7586.00	5911.40	2279.13	14300.85	7436.00	5907.33	2518.63	57.94	282.63	346.58	0.82	FAIL
14513.00†	7586.00	6011.40	2279.03	14400.84	7436.00	6007.30	2520.33	58.13	284.16	352.37	0.81	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 24 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH 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
14613.00†	7586.00	6111.40	2278.93	14500.82	7436.00	6107.27	2522.03	58.32	285.68	358.17	0.80	FAIL
14713.00†	7586.00	6211.40	2278.83	14600.80	7436.00	6207.24	2523.73	58.51	287.22	363.98	0.79	FAIL
14813.00†	7586.00	6311.40	2278.74	14700.79	7436.00	6307.21	2525.43	58.70	288.75	369.81	0.78	FAIL
14913.00†	7586.00	6411.40	2278.64	14800.77	7436.00	6407.18	2527.13	58.88	290.29	375.65	0.77	FAIL
15013.00†	7586.00	6511.40	2278.54	14900.75	7436.00	6507.15	2528.83	59.07	291.83	381.50	0.76	FAIL
15113.00†	7586.00	6611.40	2278.44	15000.74	7436.00	6607.12	2530.53	59.25	293.37	387.37	0.76	FAIL
15213.00†	7586.00	6711.40	2278.35	15100.72	7436.00	6707.09	2532.23	59.42	294.92	393.25	0.75	FAIL
15313.00†	7586.00	6811.40	2278.25	15200.71	7436.00	6807.06	2533.93	59.60	296.47	399.14	0.74	FAIL
15413.00†	7586.00	6911.40	2278.15	15300.69	7436.00	6907.02	2535.63	59.78	298.02	405.04	0.74	FAIL
15513.00†	7586.00	7011.40	2278.05	15400.67	7436.00	7006.99	2537.33	59.95	299.57	410.96	0.73	FAIL
15613.00†	7586.00	7111.40	2277.95	15500.66	7436.00	7106.96	2539.03	60.12	301.13	416.88	0.72	FAIL
15713.00†	7586.00	7211.40	2277.86	15600.64	7436.00	7206.93	2540.73	60.29	302.69	422.82	0.72	FAIL
15813.00†	7586.00	7311.40	2277.76	15700.62	7436.00	7306.90	2542.43	60.46	304.26	428.77	0.71	FAIL
15913.00†	7586.00	7411.40	2277.66	15800.61	7436.00	7406.87	2544.13	60.62	305.82	434.72	0.70	FAIL
16013.00†	7586.00	7511.40	2277.56	15900.59	7436.00	7506.84	2545.83	60.79	307.39	440.69	0.70	FAIL
16113.00†	7586.00	7611.40	2277.47	16000.58	7436.00	7606.81	2547.53	60.95	308.96	446.67	0.69	FAIL
16213.00†	7586.00	7711.40	2277.37	16100.56	7436.00	7706.78	2549.23	61.11	310.53	452.65	0.69	FAIL
16313.00†	7586.00	7811.40	2277.27	16200.54	7436.00	7806.75	2550.93	61.27	312.11	458.64	0.68	FAIL
16413.00†	7586.00	7911.40	2277.17	16300.53	7436.00	7906.72	2552.63	61.43	313.68	464.65	0.67	FAIL
16513.00†	7586.00	8011.40	2277.07	16400.51	7436.00	8006.69	2554.33	61.59	315.26	470.66	0.67	FAIL
16613.00†	7586.00	8111.40	2276.98	16500.50	7436.00	8106.66	2556.03	61.74	316.85	476.68	0.66	FAIL
16713.00†	7586.00	8211.40	2276.88	16600.48	7436.00	8206.63	2557.73	61.89	318.43	482.70	0.66	FAIL
16813.00†	7586.00	8311.40	2276.78	16700.46	7436.00	8306.60	2559.43	62.05	320.02	488.74	0.65	FAIL
16913.00†	7586.00	8411.40	2276.68	16800.45	7436.00	8406.57	2561.13	62.20	321.61	494.78	0.65	FAIL
17013.00†	7586.00	8511.40	2276.59	16900.43	7436.00	8506.54	2562.83	62.34	323.20	500.83	0.64	FAIL
17113.00†	7586.00	8611.40	2276.49	17000.41	7436.00	8606.50	2564.53	62.49	324.79	506.89	0.64	FAIL
17213.00†	7586.00	8711.40	2276.39	17100.40	7436.00	8706.47	2566.23	62.64	326.39	512.95	0.64	FAIL
17313.00†	7586.00	8811.40	2276.29	17200.38	7436.00	8806.44	2567.93	62.78	327.99	519.02	0.63	FAIL
17413.00†	7586.00	8911.40	2276.19	17300.37	7436.00	8906.41	2569.63	62.92	329.59	525.10	0.63	FAIL
17513.00†	7586.00	9011.40	2276.10	17400.35	7436.00	9006.38	2571.33	63.07	331.19	531.18	0.62	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 25 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#15 ACKARD NORTH 2-35-4NAH (600'FSL & 2145'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NAH 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
17613.00†	7586.00	9111.40	2276.00	17500.33	7436.00	9106.35	2573.02	63.21	332.79	537.27	0.62	FAIL
17713.00†	7586.00	9211.40	2275.90	17600.32	7436.00	9206.32	2574.72	63.34	334.40	543.37	0.61	FAIL
17813.00†	7586.00	9311.40	2275.80	17700.30	7436.00	9306.29	2576.42	63.48	336.00	549.47	0.61	FAIL
17913.00†	7586.00	9411.40	2275.71	17800.29	7436.00	9406.26	2578.12	63.62	337.61	555.58	0.61	FAIL
18013.00†	7586.00	9511.40	2275.61	17900.27	7436.00	9506.23	2579.82	63.75	339.23	561.69	0.60	FAIL
18099.99	7586.00	9598.39	2275.52	17987.25	7436.00	9593.19	2581.30	63.87	340.63	567.01	0.60	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

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

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH 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	1789.64	0.01	9.15	-10.44	41.32
8.5in Open Hole	1800.00	17994.78	16194.78	1789.64	7436.00	-10.44	41.32	2926.31	791.40

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-4NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17994.78	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NAH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 26 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4NAH PWB Offset Wellpath: ACKARD NORTH 2-35-4NAH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 27 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

CLEARANCE DATA - Offset Wellbore: CARLSON #1 AWB Offset Wellpath: CARLSON #1 AWP												
Facility: SEC.02-T02S-R66W		Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR)		Well: CARLSON #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	40.00	13.00	4031.31	2504.47	31.85	4745.93	50.94	94.64	PASS
113.00†	113.00	0.00	0.00	140.00	113.00	4031.31	2504.47	31.85	4745.93	53.29	90.41	PASS
213.00†	213.00	0.00	0.00	240.00	213.00	4031.31	2504.47	31.85	4745.93	55.63	86.54	PASS
313.00†	313.00	0.00	0.00	340.00	313.00	4031.31	2504.47	31.85	4745.93	57.99	82.98	PASS
413.00†	413.00	0.00	0.00	440.00	413.00	4031.31	2504.47	31.85	4745.93	60.34	79.70	PASS
513.00†	513.00	0.00	0.00	540.00	513.00	4031.31	2504.47	31.85	4745.93	62.70	76.66	PASS
613.00†	613.00	0.00	0.00	640.00	613.00	4031.31	2504.47	31.85	4745.93	65.07	73.84	PASS
713.00†	713.00	0.00	0.00	740.00	713.00	4031.31	2504.47	31.85	4745.93	67.44	71.21	PASS
813.00†	813.00	0.00	0.00	840.00	813.00	4031.31	2504.47	31.85	4745.93	69.81	68.76	PASS
913.00†	913.00	0.00	0.00	940.00	913.00	4031.31	2504.47	31.85	4745.93	72.18	66.47	PASS
1013.00†	1013.00	0.00	0.00	1040.00	1013.00	4031.31	2504.47	31.85	4745.93	74.56	64.33	PASS
1100.00	1100.00	0.00	0.00	1127.00	1100.00	4031.31	2504.47	31.85	4745.93	76.64	62.57	PASS
1113.00†	1113.00	-0.01	0.03	1140.00	1113.00	4031.31	2504.47	-77.03	4745.92	76.95	62.32	PASS
1213.00†	1212.97	-0.72	2.11	1239.97	1212.97	4031.31	2504.47	-77.07	4745.43	79.34	60.41	PASS
1313.00†	1312.80	-2.56	7.49	1339.80	1312.80	4031.31	2504.47	-77.16	4744.16	81.73	58.61	PASS
1413.00†	1412.38	-5.53	16.16	1439.38	1412.38	4031.31	2504.47	-77.31	4742.13	84.12	56.91	PASS
1513.00†	1511.57	-9.62	28.12	1538.57	1511.57	4031.31	2504.47	-77.51	4739.35	86.52	55.28	PASS
1613.00†	1610.26	-14.83	43.34	1637.26	1610.26	4031.31	2504.47	-77.77	4735.86	88.91	53.74	PASS
1713.00†	1708.33	-21.14	61.82	1735.33	1708.33	4031.31	2504.47	-78.07	4731.70	91.32	52.27	PASS
1813.00†	1805.66	-28.57	83.52	1832.66	1805.66	4031.31	2504.47	-78.43	4726.91	93.64	50.86	PASS
1913.00†	1902.13	-37.09	108.42	1929.13	1902.13	4031.31	2504.47	-78.84	4721.54	96.08	49.50	PASS
2013.00†	1997.62	-46.69	136.49	2024.62	1997.62	4031.31	2504.47	-79.29	4715.66	98.53	48.20	PASS
2113.00†	2092.02	-57.36	167.70	2119.02	2092.02	4031.31	2504.47	-79.79	4709.33	101.03	46.94	PASS
2209.17	2181.66	-68.63	200.64	2208.66	2181.66	4031.31	2504.47	-80.31	4702.89	103.46	45.76	PASS
2213.00†	2185.21	-69.10	202.01	2212.21	2185.21	4031.31	2504.47	-80.33	4702.63	103.56	45.72	PASS
2313.00†	2277.81	-81.32	237.73	2304.81	2277.81	4031.31	2504.47	-80.75	4695.94	106.14	44.53	PASS
2413.00†	2370.41	-93.54	273.46	2397.41	2370.41	4031.31	2504.47	-81.17	4689.54	108.78	43.39	PASS
2513.00†	2463.01	-105.76	309.18	2490.01	2463.01	4031.31	2504.47	-81.59	4683.44	111.47	42.28	PASS
2613.00†	2555.60	-117.97	344.91	2582.60	2555.60	4031.31	2504.47	-82.02	4677.64	114.21	41.21	PASS
2713.00†	2648.20	-130.19	380.63	2675.20	2648.20	4031.31	2504.47	-82.44	4672.13	116.99	40.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 28 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #1 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2740.80	-142.41	416.36	2767.80	2740.80	4031.31	2504.47	-82.87	4666.93	119.81	39.18	PASS
2913.00†	2833.40	-154.63	452.08	2860.40	2833.40	4031.31	2504.47	-83.30	4662.02	122.68	38.22	PASS
3013.00†	2926.00	-166.85	487.81	2953.00	2926.00	4031.31	2504.47	-83.72	4657.42	125.58	37.29	PASS
3113.00†	3018.59	-179.07	523.53	3045.59	3018.59	4031.31	2504.47	-84.15	4653.11	128.52	36.40	PASS
3213.00†	3111.19	-191.29	559.26	3138.19	3111.19	4031.31	2504.47	-84.58	4649.11	131.49	35.54	PASS
3313.00†	3203.79	-203.51	594.98	3230.79	3203.79	4031.31	2504.47	-85.01	4645.42	134.49	34.72	PASS
3413.00†	3296.39	-215.73	630.71	3323.39	3296.39	4031.31	2504.47	-85.44	4642.02	137.52	33.93	PASS
3513.00†	3388.99	-227.95	666.43	3415.99	3388.99	4031.31	2504.47	-85.87	4638.94	140.57	33.16	PASS
3613.00†	3481.59	-240.17	702.16	3508.59	3481.59	4031.31	2504.47	-86.30	4636.15	143.65	32.43	PASS
3713.00†	3574.18	-252.39	737.88	3601.18	3574.18	4031.31	2504.47	-86.73	4633.68	146.75	31.72	PASS
3813.00†	3666.78	-264.61	773.61	3693.78	3666.78	4031.31	2504.47	-87.16	4631.51	149.87	31.05	PASS
3913.00†	3759.38	-276.83	809.33	3786.38	3759.38	4031.31	2504.47	-87.60	4629.64	153.00	30.39	PASS
4013.00†	3851.98	-289.05	845.06	3878.98	3851.98	4031.31	2504.47	-88.03	4628.09	156.16	29.77	PASS
4113.00†	3944.58	-301.27	880.78	3971.58	3944.58	4031.31	2504.47	-88.46	4626.84	159.33	29.17	PASS
4213.00†	4037.17	-313.49	916.51	4064.17	4037.17	4031.31	2504.47	-88.90	4625.90	162.51	28.59	PASS
4313.00†	4129.77	-325.71	952.23	4156.77	4129.77	4031.31	2504.47	-89.33	4625.27	165.70	28.03	PASS
4413.00†	4222.37	-337.93	987.96	4249.37	4222.37	4031.31	2504.47	-89.76	4624.94	168.91	27.49	PASS
4513.00†	4314.97	-350.15	1023.68	4341.97	4314.97	4031.31	2504.47	-90.19	4624.93	172.13	26.98	PASS
4613.00†	4407.57	-362.37	1059.41	4434.57	4407.57	4031.31	2504.47	-90.63	4625.22	175.35	26.48	PASS
4713.00†	4500.16	-374.59	1095.13	4527.16	4500.16	4031.31	2504.47	-91.06	4625.82	178.59	26.00	PASS
4813.00†	4592.76	-386.81	1130.86	4619.76	4592.76	4031.31	2504.47	-91.49	4626.73	181.83	25.54	PASS
4913.00†	4685.36	-399.03	1166.58	4712.36	4685.36	4031.31	2504.47	-91.93	4627.94	185.08	25.10	PASS
5013.00†	4777.96	-411.25	1202.31	4804.96	4777.96	4031.31	2504.47	-92.36	4629.47	188.33	24.67	PASS
5113.00†	4870.56	-423.47	1238.03	4897.56	4870.56	4031.31	2504.47	-92.79	4631.30	191.59	24.26	PASS
5213.00†	4963.15	-435.69	1273.76	4990.15	4963.15	4031.31	2504.47	-93.22	4633.44	194.85	23.86	PASS
5313.00†	5055.75	-447.91	1309.48	5082.75	5055.75	4031.31	2504.47	-93.65	4635.88	198.12	23.48	PASS
5413.00†	5148.35	-460.13	1345.21	5175.35	5148.35	4031.31	2504.47	-94.09	4638.63	201.39	23.11	PASS
5513.00†	5240.95	-472.35	1380.93	5267.95	5240.95	4031.31	2504.47	-94.52	4641.69	204.66	22.76	PASS
5613.00†	5333.55	-484.56	1416.66	5360.55	5333.55	4031.31	2504.47	-94.95	4645.05	207.94	22.41	PASS
5713.00†	5426.14	-496.78	1452.38	5453.14	5426.14	4031.31	2504.47	-95.38	4648.71	211.21	22.08	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 29 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #1 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5518.74	-509.00	1488.11	5545.74	5518.74	4031.31	2504.47	-95.81	4652.68	214.48	21.76	PASS
5913.00†	5611.34	-521.22	1523.83	5638.34	5611.34	4031.31	2504.47	-96.23	4656.96	217.76	21.45	PASS
6013.00†	5703.94	-533.44	1559.56	5730.94	5703.94	4031.31	2504.47	-96.66	4661.53	221.04	21.15	PASS
6113.00†	5796.54	-545.66	1595.28	5823.54	5796.54	4031.31	2504.47	-97.09	4666.40	224.31	20.87	PASS
6213.00†	5889.13	-557.88	1631.01	5916.13	5889.13	4031.31	2504.47	-97.51	4671.58	227.58	20.59	PASS
6313.00†	5981.73	-570.10	1666.73	6008.73	5981.73	4031.31	2504.47	-97.94	4677.05	230.85	20.32	PASS
6413.00†	6074.33	-582.32	1702.46	6101.33	6074.33	4031.31	2504.47	-98.36	4682.82	234.12	20.06	PASS
6513.00†	6166.93	-594.54	1738.18	6193.93	6166.93	4031.31	2504.47	-98.79	4688.89	237.39	19.81	PASS
6613.00†	6259.53	-606.76	1773.91	6286.53	6259.53	4031.31	2504.47	-99.21	4695.26	240.66	19.56	PASS
6713.00†	6352.13	-618.98	1809.63	6379.13	6352.13	4031.31	2504.47	-99.63	4701.92	243.92	19.33	PASS
6813.00†	6444.72	-631.20	1845.36	6471.72	6444.72	4031.31	2504.47	-100.05	4708.87	247.18	19.10	PASS
6913.00†	6537.32	-643.42	1881.08	6564.32	6537.32	4031.31	2504.47	-100.47	4716.11	250.43	18.88	PASS
7013.00†	6629.92	-655.64	1916.81	6656.92	6629.92	4031.31	2504.47	-100.89	4723.65	253.68	18.67	PASS
7113.00†	6722.52	-667.86	1952.53	6749.52	6722.52	4031.31	2504.47	-101.31	4731.47	256.93	18.46	PASS
7213.00†	6815.12	-680.08	1988.26	6842.12	6815.12	4031.31	2504.47	-101.72	4739.59	260.17	18.26	PASS
7313.00†	6907.71	-692.30	2023.98	6934.71	6907.71	4031.31	2504.47	-102.14	4747.99	263.41	18.07	PASS
7397.45	6985.91	-702.62	2054.15	7012.91	6985.91	4031.31	2504.47	-102.49	4755.30	266.15	17.91	PASS
7413.00†	7000.33	-704.31	2059.72	7027.33	7000.33	4031.31	2504.47	-98.85	4756.46	266.65	17.88	PASS
7513.00†	7093.51	-705.12	2095.66	7120.51	7093.51	4031.31	2504.47	-73.78	4754.04	269.97	17.65	PASS
7613.00†	7185.41	-688.57	2131.08	7212.41	7185.41	4031.31	2504.47	-52.53	4734.63	273.54	17.35	PASS
7713.00†	7273.24	-655.17	2164.92	7300.24	7273.24	4031.31	2504.47	-38.55	4698.77	276.92	17.01	PASS
7813.00†	7354.33	-605.94	2196.15	7381.33	7354.33	4031.31	2504.47	-29.80	4647.49	279.97	16.64	PASS
7913.00†	7426.22	-542.36	2223.81	7453.22	7426.22	4031.31	2504.47	-24.05	4582.28	282.58	16.25	PASS
8013.00†	7486.72	-466.38	2247.07	7513.72	7486.72	4031.31	2504.47	-19.84	4505.05	284.71	15.86	PASS
8113.00†	7533.99	-380.29	2265.22	7560.99	7533.99	4031.31	2504.47	-16.01	4418.09	286.30	15.47	PASS
8213.00†	7566.60	-286.72	2277.70	7593.60	7566.60	4031.31	2504.47	-10.45	4323.99	287.32	15.08	PASS
8313.00†	7583.55	-188.51	2284.15	7610.55	7583.55	4031.31	2504.47	11.79	4225.57	287.78	14.72	PASS
8367.84	7586.00	-133.75	2285.04	7613.00	7586.00	4031.31	2504.47	90.00	4170.84	287.79	14.53	PASS
8413.00†	7586.00	-88.59	2284.99	7613.00	7586.00	4031.31	2504.47	90.00	4125.75	287.73	14.37	PASS
8513.00†	7586.00	11.41	2284.90	7613.00	7586.00	4031.31	2504.47	90.00	4025.90	287.59	14.03	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 30 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
8613.00†	7586.00	111.41	2284.80	7613.00	7586.00	4031.31	2504.47	90.00	3926.06	287.44	13.69	PASS
8713.00†	7586.00	211.41	2284.70	7613.00	7586.00	4031.31	2504.47	90.00	3826.22	287.28	13.35	PASS
8813.00†	7586.00	311.41	2284.60	7613.00	7586.00	4031.31	2504.47	90.00	3726.40	287.12	13.01	PASS
8913.00†	7586.00	411.41	2284.51	7613.00	7586.00	4031.31	2504.47	90.00	3626.58	286.95	12.67	PASS
9013.00†	7586.00	511.41	2284.41	7613.00	7586.00	4031.31	2504.47	90.00	3526.78	286.76	12.33	PASS
9113.00†	7586.00	611.41	2284.31	7613.00	7586.00	4031.31	2504.47	90.00	3426.99	286.57	11.99	PASS
9213.00†	7586.00	711.41	2284.21	7613.00	7586.00	4031.31	2504.47	90.00	3327.20	286.37	11.64	PASS
9313.00†	7586.00	811.41	2284.11	7613.00	7586.00	4031.31	2504.47	90.00	3227.44	286.16	11.30	PASS
9413.00†	7586.00	911.41	2284.02	7613.00	7586.00	4031.31	2504.47	90.00	3127.69	285.93	10.96	PASS
9513.00†	7586.00	1011.41	2283.92	7613.00	7586.00	4031.31	2504.47	90.00	3027.95	285.69	10.62	PASS
9613.00†	7586.00	1111.41	2283.82	7613.00	7586.00	4031.31	2504.47	90.00	2928.23	285.43	10.28	PASS
9713.00†	7586.00	1211.41	2283.72	7613.00	7586.00	4031.31	2504.47	90.00	2828.53	285.15	9.94	PASS
9813.00†	7586.00	1311.41	2283.63	7613.00	7586.00	4031.31	2504.47	90.00	2728.86	284.86	9.60	PASS
9913.00†	7586.00	1411.41	2283.53	7613.00	7586.00	4031.31	2504.47	90.00	2629.21	284.54	9.26	PASS
10013.00†	7586.00	1511.41	2283.43	7613.00	7586.00	4031.31	2504.47	90.00	2529.58	284.20	8.92	PASS
10113.00†	7586.00	1611.41	2283.33	7613.00	7586.00	4031.31	2504.47	90.00	2429.99	283.83	8.58	PASS
10213.00†	7586.00	1711.41	2283.23	7613.00	7586.00	4031.31	2504.47	90.00	2330.43	283.43	8.24	PASS
10313.00†	7586.00	1811.40	2283.14	7613.00	7586.00	4031.31	2504.47	90.00	2230.91	282.99	7.90	PASS
10413.00†	7586.00	1911.40	2283.04	7613.00	7586.00	4031.31	2504.47	90.00	2131.44	282.51	7.56	PASS
10513.00†	7586.00	2011.40	2282.94	7613.00	7586.00	4031.31	2504.47	90.00	2032.02	281.99	7.22	PASS
10613.00†	7586.00	2111.40	2282.84	7613.00	7586.00	4031.31	2504.47	90.00	1932.66	281.41	6.88	PASS
10713.00†	7586.00	2211.40	2282.75	7613.00	7586.00	4031.31	2504.47	90.00	1833.36	280.77	6.54	PASS
10813.00†	7586.00	2311.40	2282.65	7613.00	7586.00	4031.31	2504.47	90.00	1734.15	280.06	6.21	PASS
10913.00†	7586.00	2411.40	2282.55	7613.00	7586.00	4031.31	2504.47	90.00	1635.04	279.26	5.87	PASS
11013.00†	7586.00	2511.40	2282.45	7613.00	7586.00	4031.31	2504.47	90.00	1536.04	278.37	5.53	PASS
11113.00†	7586.00	2611.40	2282.35	7613.00	7586.00	4031.31	2504.47	90.00	1437.18	277.35	5.19	PASS
11213.00†	7586.00	2711.40	2282.26	7613.00	7586.00	4031.31	2504.47	90.00	1338.48	276.19	4.86	PASS
11313.00†	7586.00	2811.40	2282.16	7613.00	7586.00	4031.31	2504.47	90.00	1240.00	274.86	4.52	PASS
11413.00†	7586.00	2911.40	2282.06	7613.00	7586.00	4031.31	2504.47	90.00	1141.78	273.32	4.19	PASS
11513.00†	7586.00	3011.40	2281.96	7613.00	7586.00	4031.31	2504.47	90.00	1043.90	271.51	3.85	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 31 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, PR) Well: CARLSON #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
11613.00†	7586.00	3111.40	2281.87	7613.00	7586.00	4031.31	2504.47	90.00	946.46	269.39	3.52	PASS
11713.00†	7586.00	3211.40	2281.77	7613.00	7586.00	4031.31	2504.47	90.00	849.62	266.86	3.19	PASS
11813.00†	7586.00	3311.40	2281.67	7613.00	7586.00	4031.31	2504.47	90.00	753.60	263.87	2.86	PASS
11913.00†	7586.00	3411.40	2281.57	7613.00	7586.00	4031.31	2504.47	90.00	658.76	260.37	2.53	PASS
12013.00†	7586.00	3511.40	2281.47	7613.00	7586.00	4031.31	2504.47	90.00	565.71	256.51	2.21	PASS
12113.00†	7586.00	3611.40	2281.38	7613.00	7586.00	4031.31	2504.47	90.00	475.49	253.18	1.88	PASS
12213.00†	7586.00	3711.40	2281.28	7613.00	7586.00	4031.31	2504.47	90.00	390.07	253.44	1.54	PASS
12313.00†	7586.00	3811.40	2281.18	7613.00	7586.00	4031.31	2504.47	90.00	313.40	264.38	1.19	PASS
12413.00†	7586.00	3911.40	2281.08	7613.00	7586.00	4031.31	2504.47	90.00	253.54	292.72	0.87	FAIL
12513.00†	7586.00	4011.40	2280.99	7613.00	7586.00	4031.31	2504.47	90.00	224.37	331.34	0.68	FAIL
12532.70†	7586.00	4031.10	2280.97	7613.00	7586.00	4031.31	2504.47	90.00	223.51	337.98	0.66	FAIL
12566.70†	7586.00	4065.11	2280.93	7613.00	7586.00	4031.31	2504.47	90.00	226.08	347.34	0.65	FAIL
12613.00†	7586.00	4111.40	2280.89	7613.00	7586.00	4031.31	2504.47	90.00	237.50	355.18	0.67	FAIL
12713.00†	7586.00	4211.40	2280.79	7613.00	7586.00	4031.31	2504.47	90.00	287.17	356.75	0.80	FAIL
12813.00†	7586.00	4311.40	2280.69	7613.00	7586.00	4031.31	2504.47	90.00	358.51	349.51	1.03	PASS
12913.00†	7586.00	4411.40	2280.59	7613.00	7586.00	4031.31	2504.47	90.00	441.13	341.55	1.29	PASS
13013.00†	7586.00	4511.40	2280.50	7613.00	7586.00	4031.31	2504.47	90.00	529.77	334.84	1.58	PASS
13113.00†	7586.00	4611.40	2280.40	7613.00	7586.00	4031.31	2504.47	90.00	621.87	329.51	1.89	PASS
13213.00†	7586.00	4711.40	2280.30	7613.00	7586.00	4031.31	2504.47	90.00	716.09	325.28	2.20	PASS
13313.00†	7586.00	4811.40	2280.20	7613.00	7586.00	4031.31	2504.47	90.00	811.69	321.90	2.52	PASS
13413.00†	7586.00	4911.40	2280.11	7613.00	7586.00	4031.31	2504.47	90.00	908.24	319.15	2.85	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

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



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 32 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	CARLSON #1 AWB

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

MD Reference: Rig on SLOT#01 EX CARLSON #1 (660'FNL & 660'FEL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 33 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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	-0.09	-14.95	-90.35	14.95	1.40	23.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.09	-14.95	-90.35	14.95	1.72	15.46	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.09	-14.95	-90.35	14.95	2.28	9.57	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.09	-14.95	-90.35	14.95	2.88	6.80	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.09	-14.95	-90.35	14.95	3.50	5.25	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.09	-14.95	-90.35	14.95	4.12	4.27	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.09	-14.95	-90.35	14.95	4.74	3.60	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.09	-14.95	-90.35	14.95	5.36	3.10	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.09	-14.95	-90.35	14.95	5.99	2.73	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.09	-14.95	-90.35	14.95	6.61	2.44	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.09	-14.95	-90.35	14.95	7.24	2.20	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.09	-14.95	-90.35	14.95	7.78	2.03	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.09	-14.95	160.81	14.98	7.86	2.01	PASS
1213.00†	1212.97	-0.72	2.11	1213.04	1213.04	-0.10	-14.93	163.19	17.05	8.58	2.09	PASS
1313.00†	1312.80	-2.56	7.49	1313.60	1313.57	-0.95	-12.87	165.64	20.44	9.62	2.23	PASS
1413.00†	1412.38	-5.53	16.16	1414.29	1414.09	-3.15	-7.55	166.86	23.89	10.81	2.31	PASS
1513.00†	1511.57	-9.62	28.12	1515.09	1514.46	-6.71	1.04	167.31	27.39	11.92	2.39	PASS
1613.00†	1610.26	-14.83	43.34	1616.02	1614.55	-11.62	12.91	167.25	30.90	12.96	2.48	PASS
1713.00†	1708.33	-21.14	61.82	1717.06	1714.25	-17.88	28.05	166.83	34.44	13.95	2.56	PASS
1813.00†	1805.66	-28.57	83.52	1818.22	1813.43	-25.49	46.44	166.15	38.00	14.82	2.64	PASS
1913.00†	1902.13	-37.09	108.42	1919.49	1911.95	-34.45	68.09	165.28	41.59	15.77	2.71	PASS
2013.00†	1997.62	-46.69	136.49	2020.88	2009.69	-44.75	92.98	164.27	45.20	16.73	2.78	PASS
2113.00†	2092.02	-57.36	167.70	2122.37	2106.52	-56.37	121.07	163.14	48.84	17.70	2.83	PASS
2209.17	2181.66	-68.63	200.64	2218.82	2197.78	-68.30	149.89	162.36	53.25	18.61	2.94	PASS
2213.00†	2185.21	-69.10	202.01	2222.64	2201.40	-68.77	151.03	162.35	53.48	18.64	2.94	PASS
2313.00†	2277.81	-81.32	237.73	2322.46	2295.82	-81.15	180.95	162.16	59.57	19.47	3.14	PASS
2413.00†	2370.41	-93.54	273.46	2422.27	2390.24	-93.52	210.86	162.01	65.67	20.35	3.31	PASS
2513.00†	2463.01	-105.76	309.18	2522.09	2484.66	-105.90	240.77	161.88	71.76	21.27	3.46	PASS
2613.00†	2555.60	-117.97	344.91	2621.90	2579.08	-118.28	270.68	161.77	77.85	22.22	3.59	PASS
2713.00†	2648.20	-130.19	380.63	2721.72	2673.50	-130.65	300.60	161.68	83.94	23.21	3.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 34 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH 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†	2740.80	-142.41	416.36	2821.53	2767.92	-143.03	330.51	161.60	90.03	24.22	3.80	PASS
2913.00†	2833.40	-154.63	452.08	2921.34	2862.34	-155.40	360.42	161.53	96.13	25.26	3.89	PASS
3013.00†	2926.00	-166.85	487.81	3021.16	2956.76	-167.78	390.33	161.47	102.22	26.32	3.96	PASS
3113.00†	3018.59	-179.07	523.53	3120.97	3051.17	-180.16	420.24	161.42	108.31	27.40	4.03	PASS
3213.00†	3111.19	-191.29	559.26	3220.79	3145.59	-192.53	450.16	161.37	114.40	28.49	4.09	PASS
3313.00†	3203.79	-203.51	594.98	3320.60	3240.01	-204.91	480.07	161.32	120.50	29.60	4.15	PASS
3413.00†	3296.39	-215.73	630.71	3420.42	3334.43	-217.29	509.98	161.29	126.59	30.72	4.19	PASS
3513.00†	3388.99	-227.95	666.43	3520.23	3428.85	-229.66	539.89	161.25	132.68	31.86	4.24	PASS
3613.00†	3481.59	-240.17	702.16	3620.04	3523.27	-242.04	569.80	161.22	138.78	33.00	4.28	PASS
3713.00†	3574.18	-252.39	737.88	3719.86	3617.69	-254.42	599.72	161.19	144.87	34.15	4.31	PASS
3813.00†	3666.78	-264.61	773.61	3819.67	3712.11	-266.79	629.63	161.16	150.96	35.31	4.34	PASS
3913.00†	3759.38	-276.83	809.33	3919.49	3806.53	-279.17	659.54	161.13	157.05	36.48	4.37	PASS
4013.00†	3851.98	-289.05	845.06	4019.30	3900.95	-291.54	689.45	161.11	163.15	37.66	4.40	PASS
4113.00†	3944.58	-301.27	880.78	4119.11	3995.37	-303.92	719.37	161.09	169.24	38.84	4.42	PASS
4213.00†	4037.17	-313.49	916.51	4218.93	4089.78	-316.30	749.28	161.07	175.33	40.02	4.44	PASS
4313.00†	4129.77	-325.71	952.23	4318.74	4184.20	-328.67	779.19	161.05	181.43	41.22	4.46	PASS
4413.00†	4222.37	-337.93	987.96	4418.56	4278.62	-341.05	809.10	161.03	187.52	42.41	4.48	PASS
4513.00†	4314.97	-350.15	1023.68	4518.37	4373.04	-353.43	839.01	161.02	193.61	43.61	4.50	PASS
4613.00†	4407.57	-362.37	1059.41	4618.19	4467.46	-365.80	868.93	161.00	199.71	44.82	4.51	PASS
4713.00†	4500.16	-374.59	1095.13	4718.00	4561.88	-378.18	898.84	160.99	205.80	46.03	4.53	PASS
4813.00†	4592.76	-386.81	1130.86	4817.81	4656.30	-390.56	928.75	160.97	211.89	47.24	4.54	PASS
4913.00†	4685.36	-399.03	1166.58	4917.63	4750.72	-402.93	958.66	160.96	217.99	48.45	4.55	PASS
5013.00†	4777.96	-411.25	1202.31	5017.44	4845.14	-415.31	988.57	160.95	224.08	49.67	4.56	PASS
5113.00†	4870.56	-423.47	1238.03	5117.26	4939.56	-427.68	1018.49	160.94	230.17	50.89	4.57	PASS
5213.00†	4963.15	-435.69	1273.76	5217.07	5033.97	-440.06	1048.40	160.92	236.27	52.11	4.58	PASS
5313.00†	5055.75	-447.91	1309.48	5316.88	5128.39	-452.44	1078.31	160.91	242.36	53.34	4.59	PASS
5413.00†	5148.35	-460.13	1345.21	5416.70	5222.81	-464.81	1108.22	160.90	248.45	54.56	4.60	PASS
5513.00†	5240.95	-472.35	1380.93	5516.51	5317.23	-477.19	1138.14	160.89	254.55	55.79	4.61	PASS
5613.00†	5333.55	-484.56	1416.66	5616.33	5411.65	-489.57	1168.05	160.89	260.64	57.02	4.62	PASS
5713.00†	5426.14	-496.78	1452.38	5716.14	5506.07	-501.94	1197.96	160.88	266.73	58.26	4.62	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 35 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5518.74	-509.00	1488.11	5815.96	5600.49	-514.32	1227.87	160.87	272.83	59.49	4.63	PASS
5913.00†	5611.34	-521.22	1523.83	5915.77	5694.91	-526.70	1257.78	160.86	278.92	60.73	4.64	PASS
6013.00†	5703.94	-533.44	1559.56	6015.58	5789.33	-539.07	1287.70	160.85	285.01	61.96	4.64	PASS
6113.00†	5796.54	-545.66	1595.28	6115.40	5883.75	-551.45	1317.61	160.85	291.11	63.20	4.65	PASS
6213.00†	5889.13	-557.88	1631.01	6215.21	5978.17	-563.82	1347.52	160.84	297.20	64.44	4.65	PASS
6313.00†	5981.73	-570.10	1666.73	6315.03	6072.58	-576.20	1377.43	160.83	303.29	65.68	4.66	PASS
6413.00†	6074.33	-582.32	1702.46	6414.84	6167.00	-588.58	1407.34	160.82	309.39	66.92	4.66	PASS
6513.00†	6166.93	-594.54	1738.18	6514.65	6261.42	-600.95	1437.26	160.82	315.48	68.17	4.67	PASS
6613.00†	6259.53	-606.76	1773.91	6614.47	6355.84	-613.33	1467.17	160.81	321.57	69.41	4.67	PASS
6713.00†	6352.13	-618.98	1809.63	6714.28	6450.26	-625.71	1497.08	160.81	327.67	70.66	4.67	PASS
6813.00†	6444.72	-631.20	1845.36	6814.10	6544.68	-638.08	1526.99	160.80	333.76	71.90	4.68	PASS
6913.00†	6537.32	-643.42	1881.08	6913.91	6639.10	-650.46	1556.91	160.80	339.85	73.15	4.68	PASS
7013.00†	6629.92	-655.64	1916.81	7013.73	6733.52	-662.84	1586.82	160.79	345.95	74.40	4.69	PASS
7113.00†	6722.52	-667.86	1952.53	7113.54	6827.94	-675.21	1616.73	160.79	352.04	75.65	4.69	PASS
7213.00†	6815.12	-680.08	1988.26	7213.35	6922.36	-687.59	1646.64	160.78	358.13	76.89	4.69	PASS
7313.00†	6907.71	-692.30	2023.98	7313.17	7016.78	-699.96	1676.55	160.78	364.23	78.14	4.69	PASS
7397.45	6985.91	-702.62	2054.15	7398.02	7097.28	-707.74	1702.06	161.20	369.33	78.66	4.73	PASS
7413.00†	7000.33	-704.31	2059.72	7413.58	7112.11	-707.94	1706.75	165.24	370.26	78.57	4.75	PASS
7513.00†	7093.51	-705.12	2095.66	7512.68	7206.11	-699.30	1736.51	-167.23	376.43	77.71	4.88	PASS
7613.00†	7185.41	-688.57	2131.08	7610.21	7295.89	-674.35	1764.92	-143.78	382.73	76.73	5.03	PASS
7713.00†	7273.24	-655.17	2164.92	7706.34	7379.18	-634.50	1791.26	-127.90	388.95	75.74	5.17	PASS
7813.00†	7354.33	-605.94	2196.15	7801.23	7454.05	-581.40	1814.91	-117.61	394.83	74.82	5.32	PASS
7913.00†	7426.22	-542.36	2223.81	7895.08	7518.88	-516.86	1835.38	-110.79	400.15	74.04	5.45	PASS
8013.00†	7486.72	-466.38	2247.07	7988.06	7572.37	-442.83	1852.25	-106.17	404.69	73.41	5.56	PASS
8113.00†	7533.99	-380.29	2265.22	8080.36	7613.51	-361.33	1865.20	-103.07	408.29	72.93	5.64	PASS
8213.00†	7566.60	-286.72	2277.70	8172.19	7641.53	-274.44	1873.99	-101.15	410.80	72.61	5.70	PASS
8313.00†	7583.55	-188.51	2284.15	8263.71	7655.96	-184.27	1878.47	-100.20	412.11	72.45	5.73	PASS
8367.84	7586.00	-133.75	2285.04	8313.90	7658.00	-134.15	1879.07	-100.06	412.31	72.41	5.74	PASS
8413.00†	7586.00	-88.59	2284.99	8359.05	7658.00	-88.99	1879.02	-100.06	412.31	72.33	5.75	PASS
8513.00†	7586.00	11.41	2284.90	8459.05	7658.00	11.01	1878.93	-100.06	412.31	72.53	5.73	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 36 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
8613.00†	7586.00	111.41	2284.80	8559.05	7658.00	111.01	1878.83	-100.06	412.30	73.26	5.67	PASS
8713.00†	7586.00	211.41	2284.70	8659.05	7658.00	211.01	1878.73	-100.06	412.30	74.51	5.58	PASS
8813.00†	7586.00	311.41	2284.60	8759.05	7658.00	311.01	1878.64	-100.06	412.30	76.25	5.45	PASS
8913.00†	7586.00	411.41	2284.51	8859.05	7658.00	411.01	1878.54	-100.06	412.30	76.07	5.46	PASS
9013.00†	7586.00	511.41	2284.41	8959.05	7658.00	511.01	1878.44	-100.06	412.30	81.04	5.12	PASS
9113.00†	7586.00	611.41	2284.31	9059.05	7658.00	611.01	1878.35	-100.06	412.30	84.03	4.94	PASS
9213.00†	7586.00	711.41	2284.21	9159.05	7658.00	711.01	1878.25	-100.06	412.30	87.35	4.75	PASS
9313.00†	7586.00	811.41	2284.11	9259.05	7658.00	811.01	1878.15	-100.06	412.30	90.97	4.56	PASS
9413.00†	7586.00	911.41	2284.02	9359.05	7658.00	911.01	1878.06	-100.06	412.30	94.86	4.37	PASS
9513.00†	7586.00	1011.41	2283.92	9459.05	7658.00	1011.01	1877.96	-100.06	412.30	98.99	4.19	PASS
9613.00†	7586.00	1111.41	2283.82	9559.05	7658.00	1111.01	1877.86	-100.06	412.29	103.32	4.01	PASS
9713.00†	7586.00	1211.41	2283.72	9659.05	7658.00	1211.01	1877.76	-100.06	412.29	107.83	3.84	PASS
9813.00†	7586.00	1311.41	2283.63	9759.05	7658.00	1311.01	1877.67	-100.06	412.29	112.50	3.68	PASS
9913.00†	7586.00	1411.41	2283.53	9859.05	7658.00	1411.01	1877.57	-100.06	412.29	117.31	3.53	PASS
10013.00†	7586.00	1511.41	2283.43	9959.05	7658.00	1511.01	1877.47	-100.06	412.29	122.25	3.39	PASS
10113.00†	7586.00	1611.41	2283.33	10059.05	7658.00	1611.01	1877.38	-100.06	412.29	127.29	3.25	PASS
10213.00†	7586.00	1711.41	2283.23	10159.05	7658.00	1711.01	1877.28	-100.06	412.29	132.43	3.12	PASS
10313.00†	7586.00	1811.40	2283.14	10259.05	7658.00	1811.01	1877.18	-100.06	412.29	137.66	3.01	PASS
10413.00†	7586.00	1911.40	2283.04	10359.05	7658.00	1911.01	1877.09	-100.06	412.29	142.96	2.89	PASS
10513.00†	7586.00	2011.40	2282.94	10459.05	7658.00	2011.01	1876.99	-100.06	412.29	148.33	2.79	PASS
10613.00†	7586.00	2111.40	2282.84	10559.05	7658.00	2111.01	1876.89	-100.06	412.28	153.77	2.69	PASS
10713.00†	7586.00	2211.40	2282.75	10659.05	7658.00	2211.01	1876.80	-100.06	412.28	159.25	2.60	PASS
10813.00†	7586.00	2311.40	2282.65	10759.05	7658.00	2311.01	1876.70	-100.06	412.28	164.79	2.51	PASS
10913.00†	7586.00	2411.40	2282.55	10859.05	7658.00	2411.01	1876.60	-100.06	412.28	170.37	2.43	PASS
11013.00†	7586.00	2511.40	2282.45	10959.05	7658.00	2511.01	1876.51	-100.06	412.28	175.99	2.35	PASS
11113.00†	7586.00	2611.40	2282.35	11059.05	7658.00	2611.01	1876.41	-100.06	412.28	181.64	2.27	PASS
11213.00†	7586.00	2711.40	2282.26	11159.05	7658.00	2711.01	1876.31	-100.06	412.28	187.33	2.21	PASS
11313.00†	7586.00	2811.40	2282.16	11259.05	7658.00	2811.01	1876.22	-100.06	412.28	193.05	2.14	PASS
11413.00†	7586.00	2911.40	2282.06	11359.05	7658.00	2911.01	1876.12	-100.06	412.28	198.80	2.08	PASS
11513.00†	7586.00	3011.40	2281.96	11459.05	7658.00	3011.01	1876.02	-100.06	412.28	204.57	2.02	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 37 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
11613.00†	7586.00	3111.40	2281.87	11559.05	7658.00	3111.01	1875.93	-100.06	412.28	210.37	1.96	PASS
11713.00†	7586.00	3211.40	2281.77	11659.05	7658.00	3211.01	1875.83	-100.06	412.27	216.18	1.91	PASS
11813.00†	7586.00	3311.40	2281.67	11759.05	7658.00	3311.01	1875.73	-100.06	412.27	222.02	1.86	PASS
11913.00†	7586.00	3411.40	2281.57	11859.05	7658.00	3411.01	1875.64	-100.06	412.27	227.87	1.81	PASS
12013.00†	7586.00	3511.40	2281.47	11959.05	7658.00	3511.01	1875.54	-100.06	412.27	233.74	1.77	PASS
12113.00†	7586.00	3611.40	2281.38	12059.05	7658.00	3611.01	1875.44	-100.06	412.27	239.63	1.72	PASS
12213.00†	7586.00	3711.40	2281.28	12159.05	7658.00	3711.01	1875.35	-100.06	412.27	245.53	1.68	PASS
12313.00†	7586.00	3811.40	2281.18	12259.05	7658.00	3811.01	1875.25	-100.06	412.27	251.44	1.64	PASS
12413.00†	7586.00	3911.40	2281.08	12359.05	7658.00	3911.01	1875.15	-100.06	412.27	257.37	1.60	PASS
12513.00†	7586.00	4011.40	2280.99	12459.05	7658.00	4011.01	1875.06	-100.06	412.27	263.31	1.57	PASS
12613.00†	7586.00	4111.40	2280.89	12559.05	7658.00	4111.01	1874.96	-100.06	412.27	269.26	1.53	PASS
12713.00†	7586.00	4211.40	2280.79	12659.05	7658.00	4211.01	1874.86	-100.06	412.26	275.22	1.50	PASS
12813.00†	7586.00	4311.40	2280.69	12759.05	7658.00	4311.01	1874.76	-100.06	412.26	281.19	1.47	PASS
12913.00†	7586.00	4411.40	2280.59	12859.05	7658.00	4411.01	1874.67	-100.06	412.26	287.16	1.44	PASS
13013.00†	7586.00	4511.40	2280.50	12959.05	7658.00	4511.01	1874.57	-100.06	412.26	293.15	1.41	PASS
13113.00†	7586.00	4611.40	2280.40	13059.05	7658.00	4611.01	1874.47	-100.06	412.26	299.14	1.38	PASS
13213.00†	7586.00	4711.40	2280.30	13159.05	7658.00	4711.01	1874.38	-100.06	412.26	305.14	1.35	PASS
13313.00†	7586.00	4811.40	2280.20	13259.05	7658.00	4811.01	1874.28	-100.06	412.26	311.15	1.33	PASS
13413.00†	7586.00	4911.40	2280.11	13359.05	7658.00	4911.01	1874.18	-100.06	412.26	317.16	1.30	PASS
13513.00†	7586.00	5011.40	2280.01	13459.05	7658.00	5011.01	1874.09	-100.06	412.26	323.18	1.28	PASS
13613.00†	7586.00	5111.40	2279.91	13559.05	7658.00	5111.01	1873.99	-100.06	412.26	329.21	1.25	PASS
13713.00†	7586.00	5211.40	2279.81	13659.05	7658.00	5211.01	1873.89	-100.06	412.25	335.24	1.23	PASS
13813.00†	7586.00	5311.40	2279.71	13759.05	7658.00	5311.01	1873.80	-100.06	412.25	341.28	1.21	PASS
13913.00†	7586.00	5411.40	2279.62	13859.05	7658.00	5411.01	1873.70	-100.06	412.25	347.32	1.19	PASS
14013.00†	7586.00	5511.40	2279.52	13959.05	7658.00	5511.01	1873.60	-100.06	412.25	353.37	1.17	PASS
14113.00†	7586.00	5611.40	2279.42	14059.05	7658.00	5611.01	1873.51	-100.06	412.25	359.42	1.15	PASS
14213.00†	7586.00	5711.40	2279.32	14159.05	7658.00	5711.01	1873.41	-100.06	412.25	365.47	1.13	PASS
14313.00†	7586.00	5811.40	2279.23	14259.05	7658.00	5811.01	1873.31	-100.06	412.25	371.53	1.11	PASS
14413.00†	7586.00	5911.40	2279.13	14359.05	7658.00	5911.01	1873.22	-100.06	412.25	377.60	1.09	PASS
14513.00†	7586.00	6011.40	2279.03	14459.05	7658.00	6011.01	1873.12	-100.06	412.25	383.66	1.07	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 38 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
14613.00†	7586.00	6111.40	2278.93	14559.05	7658.00	6111.01	1873.02	-100.06	412.25	389.73	1.06	PASS
14713.00†	7586.00	6211.40	2278.83	14659.05	7658.00	6211.01	1872.93	-100.06	412.24	395.81	1.04	PASS
14813.00†	7586.00	6311.40	2278.74	14759.05	7658.00	6311.01	1872.83	-100.06	412.24	401.89	1.03	PASS
14913.00†	7586.00	6411.40	2278.64	14859.05	7658.00	6411.01	1872.73	-100.06	412.24	407.97	1.01	PASS
15013.00†	7586.00	6511.40	2278.54	14959.05	7658.00	6511.01	1872.64	-100.06	412.24	414.05	1.00	FAIL
15113.00†	7586.00	6611.40	2278.44	15059.05	7658.00	6611.01	1872.54	-100.06	412.24	420.20	0.98	FAIL
15213.00†	7586.00	6711.40	2278.35	15159.05	7658.00	6711.01	1872.44	-100.06	412.24	426.22	0.97	FAIL
15313.00†	7586.00	6811.40	2278.25	15259.05	7658.00	6811.01	1872.35	-100.06	412.24	432.31	0.95	FAIL
15413.00†	7586.00	6911.40	2278.15	15359.05	7658.00	6911.01	1872.25	-100.06	412.24	438.41	0.94	FAIL
15513.00†	7586.00	7011.40	2278.05	15459.05	7658.00	7011.01	1872.15	-100.06	412.24	444.50	0.93	FAIL
15613.00†	7586.00	7111.40	2277.95	15559.05	7658.00	7111.01	1872.05	-100.06	412.24	450.60	0.91	FAIL
15713.00†	7586.00	7211.40	2277.86	15659.05	7658.00	7211.01	1871.96	-100.06	412.23	456.70	0.90	FAIL
15813.00†	7586.00	7311.40	2277.76	15759.05	7658.00	7311.01	1871.86	-100.06	412.23	462.80	0.89	FAIL
15913.00†	7586.00	7411.40	2277.66	15859.05	7658.00	7411.01	1871.76	-100.06	412.23	468.91	0.88	FAIL
16013.00†	7586.00	7511.40	2277.56	15959.05	7658.00	7511.01	1871.67	-100.06	412.23	475.01	0.87	FAIL
16113.00†	7586.00	7611.40	2277.47	16059.05	7658.00	7611.01	1871.57	-100.06	412.23	481.12	0.86	FAIL
16213.00†	7586.00	7711.40	2277.37	16159.05	7658.00	7711.01	1871.47	-100.06	412.23	487.23	0.85	FAIL
16313.00†	7586.00	7811.40	2277.27	16259.05	7658.00	7811.01	1871.38	-100.06	412.23	493.34	0.84	FAIL
16413.00†	7586.00	7911.40	2277.17	16359.05	7658.00	7911.01	1871.28	-100.06	412.23	499.45	0.83	FAIL
16513.00†	7586.00	8011.40	2277.07	16459.05	7658.00	8011.01	1871.18	-100.06	412.23	505.57	0.82	FAIL
16613.00†	7586.00	8111.40	2276.98	16559.05	7658.00	8111.01	1871.09	-100.06	412.23	511.68	0.81	FAIL
16713.00†	7586.00	8211.40	2276.88	16659.05	7658.00	8211.01	1870.99	-100.06	412.23	517.80	0.80	FAIL
16813.00†	7586.00	8311.40	2276.78	16759.05	7658.00	8311.01	1870.89	-100.06	412.22	523.92	0.79	FAIL
16913.00†	7586.00	8411.40	2276.68	16859.05	7658.00	8411.01	1870.80	-100.06	412.22	530.04	0.78	FAIL
17013.00†	7586.00	8511.40	2276.59	16959.05	7658.00	8511.01	1870.70	-100.06	412.22	536.16	0.77	FAIL
17113.00†	7586.00	8611.40	2276.49	17059.05	7658.00	8611.01	1870.60	-100.06	412.22	542.28	0.76	FAIL
17213.00†	7586.00	8711.40	2276.39	17159.05	7658.00	8711.01	1870.51	-100.06	412.22	548.41	0.75	FAIL
17313.00†	7586.00	8811.40	2276.29	17259.05	7658.00	8811.01	1870.41	-100.06	412.22	554.53	0.74	FAIL
17413.00†	7586.00	8911.40	2276.19	17359.05	7658.00	8911.01	1870.31	-100.06	412.22	560.66	0.73	FAIL
17513.00†	7586.00	9011.40	2276.10	17459.05	7658.00	9011.01	1870.22	-100.06	412.22	566.79	0.73	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 39 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#13 ACKARD NORTH 2-35-4NBH (600'FSL & 2115'FWL, SEC.02) Well: ACKARD NORTH 2-35-4NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
17613.00†	7586.00	9111.40	2276.00	17559.05	7658.00	9111.01	1870.12	-100.06	412.22	572.92	0.72	FAIL
17713.00†	7586.00	9211.40	2275.90	17659.05	7658.00	9211.01	1870.02	-100.06	412.22	579.05	0.71	FAIL
17813.00†	7586.00	9311.40	2275.80	17759.05	7658.00	9311.01	1869.93	-100.06	412.21	585.18	0.70	FAIL
17913.00†	7586.00	9411.40	2275.71	17859.05	7658.00	9411.01	1869.83	-100.06	412.21	591.31	0.70	FAIL
18013.00†	7586.00	9511.40	2275.61	17959.05	7658.00	9511.01	1869.73	-100.06	412.21	597.44	0.69	FAIL
18097.20†	7586.00	9595.60	2275.53	18043.25	7658.00	9595.21	1869.65	-100.06	412.21	602.60	0.68	FAIL
18099.99	7586.00	9598.39	2275.52	18043.25	7658.00	9595.21	1869.65	-100.06	412.22	601.84	0.68	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH 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: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH 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	1795.62	-0.06	-9.12	-7.35	8.52
8.5in Open Hole	1800.00	18043.25	16243.25	1795.62	7658.00	-7.35	8.52	2924.59	565.31

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-4NBH PWB Offset Wellpath: ACKARD NORTH 2-35-4NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18043.28	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4NBH PWB





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 40 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4NCH PWB Offset Wellpath: ACKARD NORTH 2-35-4NCH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 41 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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	0.07	30.02	89.86	30.02	1.40	48.70	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	0.07	30.02	89.86	30.02	1.72	31.92	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	0.07	30.02	89.86	30.02	2.28	19.75	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	0.07	30.02	89.86	30.02	2.88	14.04	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	0.07	30.02	89.86	30.02	3.50	10.84	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	0.07	30.02	89.86	30.02	4.12	8.82	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	0.07	30.02	89.86	30.02	4.74	7.42	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	0.07	30.02	89.86	30.02	5.36	6.41	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	0.07	30.02	89.86	30.02	5.99	5.64	PASS
913.00†	913.00	0.00	0.00	912.87	912.87	0.07	30.05	89.88	30.05	6.61	5.04	PASS
1013.00†	1013.00	0.00	0.00	1011.82	1011.79	-0.54	32.12	90.96	32.14	7.35	4.79	PASS
1100.00	1100.00	0.00	0.00	1097.69	1097.54	-1.83	36.57	92.87	36.70	8.21	4.85	PASS
1113.00†	1113.00	-0.01	0.03	1110.50	1110.31	-2.09	37.44	-15.70	37.57	8.34	4.88	PASS
1213.00†	1212.97	-0.72	2.11	1208.89	1208.29	-4.57	46.00	-13.82	44.30	9.35	5.09	PASS
1313.00†	1312.80	-2.56	7.49	1307.05	1305.68	-7.99	57.74	-12.62	51.04	10.55	5.15	PASS
1413.00†	1412.38	-5.53	16.16	1404.99	1402.38	-12.33	72.65	-11.86	57.76	11.64	5.26	PASS
1513.00†	1511.57	-9.62	28.12	1502.71	1498.27	-17.57	90.67	-11.41	64.45	12.67	5.36	PASS
1613.00†	1610.26	-14.83	43.34	1600.21	1593.25	-23.71	111.78	-11.17	71.07	13.64	5.47	PASS
1713.00†	1708.33	-21.14	61.82	1697.49	1687.23	-30.73	135.92	-11.10	77.64	14.59	5.57	PASS
1813.00†	1805.66	-28.57	83.52	1794.57	1780.10	-38.62	163.05	-11.14	84.14	15.47	5.67	PASS
1913.00†	1902.13	-37.09	108.42	1891.44	1871.77	-47.37	193.11	-11.28	90.56	16.32	5.76	PASS
2013.00†	1997.62	-46.69	136.49	1988.12	1962.14	-56.96	226.07	-11.50	96.89	17.29	5.80	PASS
2113.00†	2092.02	-57.36	167.70	2084.63	2051.16	-67.37	261.87	-11.77	103.14	18.15	5.87	PASS
2209.17	2181.66	-68.63	200.64	2180.69	2139.13	-78.15	298.90	-12.25	107.50	19.03	5.83	PASS
2213.00†	2185.21	-69.10	202.01	2184.52	2142.64	-78.58	300.38	-12.27	107.61	19.06	5.82	PASS
2313.00†	2277.81	-81.32	237.73	2284.47	2234.18	-89.79	338.91	-12.94	110.51	19.86	5.73	PASS
2413.00†	2370.41	-93.54	273.46	2384.42	2325.72	-101.00	377.45	-13.57	113.43	20.73	5.63	PASS
2513.00†	2463.01	-105.76	309.18	2484.37	2417.26	-112.21	415.98	-14.16	116.36	21.64	5.53	PASS
2613.00†	2555.60	-117.97	344.91	2584.32	2508.80	-123.42	454.52	-14.73	119.31	22.61	5.42	PASS
2713.00†	2648.20	-130.19	380.63	2684.27	2600.34	-134.63	493.05	-15.27	122.26	23.62	5.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 42 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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†	2740.80	-142.41	416.36	2784.22	2691.88	-145.84	531.58	-15.79	125.23	24.68	5.20	PASS
2913.00†	2833.40	-154.63	452.08	2884.17	2783.42	-157.05	570.12	-16.28	128.20	25.77	5.09	PASS
3013.00†	2926.00	-166.85	487.81	2984.12	2874.95	-168.26	608.65	-16.75	131.19	26.91	4.98	PASS
3113.00†	3018.59	-179.07	523.53	3084.07	2966.49	-179.47	647.19	-17.19	134.18	28.07	4.88	PASS
3213.00†	3111.19	-191.29	559.26	3184.02	3058.03	-190.68	685.72	-17.62	137.18	29.27	4.78	PASS
3313.00†	3203.79	-203.51	594.98	3283.97	3149.57	-201.89	724.25	-18.03	140.19	30.51	4.68	PASS
3413.00†	3296.39	-215.73	630.71	3383.92	3241.11	-213.10	762.79	-18.43	143.21	31.76	4.59	PASS
3513.00†	3388.99	-227.95	666.43	3483.87	3332.65	-224.31	801.32	-18.80	146.23	33.05	4.50	PASS
3613.00†	3481.59	-240.17	702.16	3583.82	3424.19	-235.52	839.86	-19.16	149.25	34.35	4.41	PASS
3713.00†	3574.18	-252.39	737.88	3683.77	3515.73	-246.73	878.39	-19.51	152.29	35.68	4.33	PASS
3813.00†	3666.78	-264.61	773.61	3783.72	3607.27	-257.94	916.92	-19.84	155.32	37.04	4.26	PASS
3913.00†	3759.38	-276.83	809.33	3883.67	3698.81	-269.15	955.46	-20.16	158.37	38.40	4.18	PASS
4013.00†	3851.98	-289.05	845.06	3983.62	3790.35	-280.36	993.99	-20.47	161.42	39.79	4.11	PASS
4113.00†	3944.58	-301.27	880.78	4083.57	3881.89	-291.57	1032.53	-20.77	164.47	41.20	4.04	PASS
4213.00†	4037.17	-313.49	916.51	4183.52	3973.43	-302.77	1071.06	-21.06	167.53	42.62	3.98	PASS
4313.00†	4129.77	-325.71	952.23	4283.47	4064.97	-313.98	1109.59	-21.33	170.59	44.05	3.92	PASS
4413.00†	4222.37	-337.93	987.96	4383.42	4156.50	-325.19	1148.13	-21.60	173.65	45.50	3.86	PASS
4513.00†	4314.97	-350.15	1023.68	4483.37	4248.04	-336.40	1186.66	-21.85	176.72	46.96	3.81	PASS
4613.00†	4407.57	-362.37	1059.41	4583.32	4339.58	-347.61	1225.20	-22.10	179.79	48.44	3.75	PASS
4713.00†	4500.16	-374.59	1095.13	4683.26	4431.12	-358.82	1263.73	-22.34	182.87	49.92	3.70	PASS
4813.00†	4592.76	-386.81	1130.86	4783.21	4522.66	-370.03	1302.26	-22.57	185.94	51.42	3.65	PASS
4913.00†	4685.36	-399.03	1166.58	4883.16	4614.20	-381.24	1340.80	-22.80	189.03	52.92	3.61	PASS
5013.00†	4777.96	-411.25	1202.31	4983.11	4705.74	-392.45	1379.33	-23.02	192.11	54.44	3.56	PASS
5113.00†	4870.56	-423.47	1238.03	5083.06	4797.28	-403.66	1417.87	-23.23	195.20	55.96	3.52	PASS
5213.00†	4963.15	-435.69	1273.76	5183.01	4888.82	-414.87	1456.40	-23.43	198.28	57.49	3.48	PASS
5313.00†	5055.75	-447.91	1309.48	5282.96	4980.36	-426.08	1494.93	-23.63	201.38	59.03	3.44	PASS
5413.00†	5148.35	-460.13	1345.21	5382.91	5071.90	-437.29	1533.47	-23.82	204.47	60.58	3.40	PASS
5513.00†	5240.95	-472.35	1380.93	5482.86	5163.44	-448.50	1572.00	-24.00	207.57	62.14	3.37	PASS
5613.00†	5333.55	-484.56	1416.66	5582.81	5254.98	-459.71	1610.54	-24.18	210.66	63.70	3.33	PASS
5713.00†	5426.14	-496.78	1452.38	5682.76	5346.52	-470.92	1649.07	-24.36	213.76	65.27	3.30	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 43 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
5813.00†	5518.74	-509.00	1488.11	5782.71	5438.05	-482.13	1687.60	-24.53	216.87	66.85	3.27	PASS
5913.00†	5611.34	-521.22	1523.83	5882.66	5529.59	-493.34	1726.14	-24.69	219.97	68.43	3.24	PASS
6013.00†	5703.94	-533.44	1559.56	5982.61	5621.13	-504.55	1764.67	-24.86	223.08	70.01	3.21	PASS
6113.00†	5796.54	-545.66	1595.28	6082.56	5712.67	-515.76	1803.21	-25.01	226.18	71.61	3.18	PASS
6213.00†	5889.13	-557.88	1631.01	6182.51	5804.21	-526.97	1841.74	-25.16	229.29	73.20	3.15	PASS
6313.00†	5981.73	-570.10	1666.73	6282.46	5895.75	-538.18	1880.27	-25.31	232.40	74.80	3.13	PASS
6413.00†	6074.33	-582.32	1702.46	6382.41	5987.29	-549.39	1918.81	-25.46	235.51	76.41	3.10	PASS
6513.00†	6166.93	-594.54	1738.18	6482.36	6078.83	-560.60	1957.34	-25.60	238.63	78.02	3.08	PASS
6613.00†	6259.53	-606.76	1773.91	6582.31	6170.37	-571.81	1995.88	-25.73	241.74	79.64	3.05	PASS
6713.00†	6352.13	-618.98	1809.63	6682.26	6261.91	-583.02	2034.41	-25.87	244.86	81.26	3.03	PASS
6813.00†	6444.72	-631.20	1845.36	6782.21	6353.45	-594.23	2072.94	-26.00	247.98	82.88	3.01	PASS
6913.00†	6537.32	-643.42	1881.08	6882.16	6444.99	-605.44	2111.48	-26.12	251.10	84.51	2.99	PASS
7013.00†	6629.92	-655.64	1916.81	6982.11	6536.53	-616.65	2150.01	-26.25	254.22	86.14	2.97	PASS
7113.00†	6722.52	-667.86	1952.53	7082.06	6628.07	-627.86	2188.55	-26.37	257.34	87.77	2.95	PASS
7213.00†	6815.12	-680.08	1988.26	7182.01	6719.60	-639.07	2227.08	-26.48	260.46	89.41	2.93	PASS
7313.00†	6907.71	-692.30	2023.98	7281.96	6811.14	-650.28	2265.61	-26.60	263.58	91.05	2.91	PASS
7397.45	6985.91	-702.62	2054.15	7366.37	6888.45	-659.75	2298.16	-26.69	266.22	92.44	2.89	PASS
7413.00†	7000.33	-704.31	2059.72	7381.91	6902.68	-661.49	2304.15	-23.00	266.67	92.62	2.89	PASS
7513.00†	7093.51	-705.12	2095.66	7481.20	6993.61	-672.63	2342.42	4.58	268.20	90.51	2.98	PASS
7613.00†	7185.41	-688.57	2131.08	7577.17	7081.51	-683.39	2379.42	31.60	269.25	83.37	3.25	PASS
7713.00†	7273.24	-655.17	2164.92	7666.91	7163.70	-693.46	2414.02	53.36	274.80	75.06	3.69	PASS
7813.00†	7354.33	-605.94	2196.15	7748.18	7238.14	-702.56	2445.36	69.92	291.45	74.60	3.93	PASS
7913.00†	7426.22	-542.36	2223.81	7846.10	7328.25	-704.70	2483.28	84.12	321.37	85.67	3.77	PASS
8013.00†	7486.72	-466.38	2247.07	7962.15	7433.60	-685.69	2527.60	95.75	360.02	97.64	3.71	PASS
8113.00†	7533.99	-380.29	2265.22	8107.51	7557.05	-630.18	2579.50	105.69	402.17	101.59	3.98	PASS
8213.00†	7566.60	-286.72	2277.70	8299.17	7693.03	-509.18	2636.60	114.01	440.77	91.18	4.86	PASS
8313.00†	7583.55	-188.51	2284.15	8550.79	7802.77	-289.76	2682.57	119.39	465.88	68.67	6.84	PASS
8367.84	7586.00	-133.75	2285.04	8707.94	7823.00	-134.63	2690.93	120.28	470.02	64.09	7.40	PASS
8413.00†	7586.00	-88.59	2284.99	8754.38	7823.00	-88.20	2690.89	120.28	470.02	63.79	7.44	PASS
8513.00†	7586.00	11.41	2284.90	8854.38	7823.00	11.80	2690.79	120.28	470.02	63.26	7.50	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 44 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
8613.00†	7586.00	111.41	2284.80	8954.38	7823.00	111.80	2690.69	120.28	470.02	63.23	7.51	PASS
8713.00†	7586.00	211.41	2284.70	9054.38	7823.00	211.80	2690.59	120.28	470.02	63.69	7.45	PASS
8813.00†	7586.00	311.41	2284.60	9154.38	7823.00	311.80	2690.50	120.28	470.02	64.62	7.34	PASS
8913.00†	7586.00	411.41	2284.51	9254.38	7823.00	411.80	2690.40	120.28	470.02	64.45	7.36	PASS
9013.00†	7586.00	511.41	2284.41	9354.38	7823.00	511.80	2690.30	120.28	470.02	67.81	6.99	PASS
9113.00†	7586.00	611.41	2284.31	9454.38	7823.00	611.80	2690.20	120.28	470.02	70.02	6.77	PASS
9213.00†	7586.00	711.41	2284.21	9554.38	7823.00	711.80	2690.10	120.28	470.02	72.58	6.53	PASS
9313.00†	7586.00	811.41	2284.11	9654.38	7823.00	811.80	2690.01	120.28	470.02	75.46	6.28	PASS
9413.00†	7586.00	911.41	2284.02	9754.38	7823.00	911.80	2689.91	120.28	470.02	78.63	6.02	PASS
9513.00†	7586.00	1011.41	2283.92	9854.38	7823.00	1011.80	2689.81	120.28	470.02	82.04	5.77	PASS
9613.00†	7586.00	1111.41	2283.82	9954.38	7823.00	1111.80	2689.71	120.28	470.02	85.68	5.52	PASS
9713.00†	7586.00	1211.41	2283.72	10054.38	7823.00	1211.80	2689.61	120.28	470.02	89.52	5.28	PASS
9813.00†	7586.00	1311.41	2283.63	10154.38	7823.00	1311.80	2689.52	120.28	470.02	93.52	5.06	PASS
9913.00†	7586.00	1411.41	2283.53	10254.38	7823.00	1411.80	2689.42	120.28	470.02	97.67	4.84	PASS
10013.00†	7586.00	1511.41	2283.43	10354.38	7823.00	1511.80	2689.32	120.28	470.02	101.95	4.64	PASS
10113.00†	7586.00	1611.41	2283.33	10454.38	7823.00	1611.80	2689.22	120.28	470.02	106.34	4.44	PASS
10213.00†	7586.00	1711.41	2283.23	10554.38	7823.00	1711.80	2689.12	120.28	470.02	110.84	4.26	PASS
10313.00†	7586.00	1811.40	2283.14	10654.38	7823.00	1811.80	2689.03	120.28	470.02	115.43	4.09	PASS
10413.00†	7586.00	1911.40	2283.04	10754.38	7823.00	1911.80	2688.93	120.28	470.02	120.09	3.93	PASS
10513.00†	7586.00	2011.40	2282.94	10854.38	7823.00	2011.80	2688.83	120.28	470.02	124.83	3.78	PASS
10613.00†	7586.00	2111.40	2282.84	10954.38	7823.00	2111.80	2688.73	120.28	470.02	129.62	3.64	PASS
10713.00†	7586.00	2211.40	2282.75	11054.38	7823.00	2211.80	2688.63	120.28	470.02	134.48	3.51	PASS
10813.00†	7586.00	2311.40	2282.65	11154.38	7823.00	2311.80	2688.54	120.28	470.02	139.38	3.38	PASS
10913.00†	7586.00	2411.40	2282.55	11254.38	7823.00	2411.80	2688.44	120.28	470.02	144.32	3.27	PASS
11013.00†	7586.00	2511.40	2282.45	11354.38	7823.00	2511.80	2688.34	120.28	470.02	149.31	3.16	PASS
11113.00†	7586.00	2611.40	2282.35	11454.38	7823.00	2611.80	2688.24	120.28	470.02	154.33	3.05	PASS
11213.00†	7586.00	2711.40	2282.26	11554.38	7823.00	2711.80	2688.14	120.28	470.02	159.39	2.96	PASS
11313.00†	7586.00	2811.40	2282.16	11654.38	7823.00	2811.80	2688.05	120.28	470.02	164.48	2.87	PASS
11413.00†	7586.00	2911.40	2282.06	11754.38	7823.00	2911.80	2687.95	120.28	470.02	169.59	2.78	PASS
11513.00†	7586.00	3011.40	2281.96	11854.38	7823.00	3011.80	2687.85	120.28	470.01	174.73	2.70	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 45 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
11613.00†	7586.00	3111.40	2281.87	11954.38	7823.00	3111.80	2687.75	120.28	470.01	179.89	2.62	PASS
11713.00†	7586.00	3211.40	2281.77	12054.38	7823.00	3211.80	2687.65	120.28	470.01	185.07	2.55	PASS
11813.00†	7586.00	3311.40	2281.67	12154.38	7823.00	3311.80	2687.56	120.28	470.01	190.27	2.48	PASS
11913.00†	7586.00	3411.40	2281.57	12254.38	7823.00	3411.80	2687.46	120.28	470.01	195.49	2.41	PASS
12013.00†	7586.00	3511.40	2281.47	12354.38	7823.00	3511.80	2687.36	120.28	470.01	200.72	2.35	PASS
12113.00†	7586.00	3611.40	2281.38	12454.38	7823.00	3611.80	2687.26	120.28	470.01	205.97	2.29	PASS
12213.00†	7586.00	3711.40	2281.28	12554.38	7823.00	3711.80	2687.16	120.28	470.01	211.23	2.23	PASS
12313.00†	7586.00	3811.40	2281.18	12654.38	7823.00	3811.80	2687.07	120.28	470.01	216.50	2.17	PASS
12413.00†	7586.00	3911.40	2281.08	12754.38	7823.00	3911.80	2686.97	120.28	470.01	221.79	2.12	PASS
12513.00†	7586.00	4011.40	2280.99	12854.38	7823.00	4011.80	2686.87	120.28	470.01	227.09	2.07	PASS
12613.00†	7586.00	4111.40	2280.89	12954.38	7823.00	4111.80	2686.77	120.28	470.01	232.40	2.03	PASS
12713.00†	7586.00	4211.40	2280.79	13054.38	7823.00	4211.80	2686.68	120.28	470.01	237.71	1.98	PASS
12813.00†	7586.00	4311.40	2280.69	13154.38	7823.00	4311.80	2686.58	120.28	470.01	243.04	1.94	PASS
12913.00†	7586.00	4411.40	2280.59	13254.38	7823.00	4411.80	2686.48	120.28	470.01	248.37	1.89	PASS
13013.00†	7586.00	4511.40	2280.50	13354.38	7823.00	4511.80	2686.38	120.28	470.01	253.72	1.85	PASS
13113.00†	7586.00	4611.40	2280.40	13454.38	7823.00	4611.80	2686.28	120.28	470.01	259.07	1.82	PASS
13213.00†	7586.00	4711.40	2280.30	13554.38	7823.00	4711.80	2686.19	120.28	470.01	264.42	1.78	PASS
13313.00†	7586.00	4811.40	2280.20	13654.38	7823.00	4811.80	2686.09	120.28	470.01	269.79	1.74	PASS
13413.00†	7586.00	4911.40	2280.11	13754.38	7823.00	4911.80	2685.99	120.28	470.01	275.16	1.71	PASS
13513.00†	7586.00	5011.40	2280.01	13854.38	7823.00	5011.80	2685.89	120.28	470.01	280.53	1.68	PASS
13613.00†	7586.00	5111.40	2279.91	13954.38	7823.00	5111.80	2685.79	120.28	470.01	285.91	1.65	PASS
13713.00†	7586.00	5211.40	2279.81	14054.38	7823.00	5211.80	2685.70	120.28	470.01	291.30	1.62	PASS
13813.00†	7586.00	5311.40	2279.71	14154.38	7823.00	5311.80	2685.60	120.28	470.01	296.69	1.59	PASS
13913.00†	7586.00	5411.40	2279.62	14254.38	7823.00	5411.80	2685.50	120.28	470.01	302.08	1.56	PASS
14013.00†	7586.00	5511.40	2279.52	14354.38	7823.00	5511.80	2685.40	120.28	470.01	307.48	1.53	PASS
14113.00†	7586.00	5611.40	2279.42	14454.38	7823.00	5611.80	2685.30	120.28	470.01	312.89	1.50	PASS
14213.00†	7586.00	5711.40	2279.32	14554.38	7823.00	5711.80	2685.21	120.28	470.01	318.29	1.48	PASS
14313.00†	7586.00	5811.40	2279.23	14654.38	7823.00	5811.80	2685.11	120.28	470.01	323.70	1.45	PASS
14413.00†	7586.00	5911.40	2279.13	14754.38	7823.00	5911.80	2685.01	120.28	470.01	329.12	1.43	PASS
14513.00†	7586.00	6011.40	2279.03	14854.38	7823.00	6011.80	2684.91	120.28	470.01	334.54	1.41	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 46 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
14613.00†	7586.00	6111.40	2278.93	14954.38	7823.00	6111.80	2684.81	120.28	470.01	339.96	1.38	PASS
14713.00†	7586.00	6211.40	2278.83	15054.38	7823.00	6211.80	2684.72	120.28	470.01	345.38	1.36	PASS
14813.00†	7586.00	6311.40	2278.74	15154.38	7823.00	6311.80	2684.62	120.28	470.01	350.81	1.34	PASS
14913.00†	7586.00	6411.40	2278.64	15254.38	7823.00	6411.80	2684.52	120.28	470.01	356.24	1.32	PASS
15013.00†	7586.00	6511.40	2278.54	15354.38	7823.00	6511.80	2684.42	120.28	470.01	361.67	1.30	PASS
15113.00†	7586.00	6611.40	2278.44	15454.38	7823.00	6611.80	2684.32	120.28	470.01	367.11	1.28	PASS
15213.00†	7586.00	6711.40	2278.35	15554.38	7823.00	6711.80	2684.23	120.28	470.01	372.54	1.26	PASS
15313.00†	7586.00	6811.40	2278.25	15654.38	7823.00	6811.80	2684.13	120.28	470.01	377.98	1.24	PASS
15413.00†	7586.00	6911.40	2278.15	15754.38	7823.00	6911.80	2684.03	120.28	470.01	383.43	1.23	PASS
15513.00†	7586.00	7011.40	2278.05	15854.38	7823.00	7011.80	2683.93	120.28	470.01	388.87	1.21	PASS
15613.00†	7586.00	7111.40	2277.95	15954.38	7823.00	7111.80	2683.83	120.28	470.01	394.32	1.19	PASS
15713.00†	7586.00	7211.40	2277.86	16054.38	7823.00	7211.80	2683.74	120.28	470.01	399.76	1.18	PASS
15813.00†	7586.00	7311.40	2277.76	16154.38	7823.00	7311.80	2683.64	120.28	470.01	405.21	1.16	PASS
15913.00†	7586.00	7411.40	2277.66	16254.38	7823.00	7411.80	2683.54	120.28	470.01	410.67	1.14	PASS
16013.00†	7586.00	7511.40	2277.56	16354.38	7823.00	7511.80	2683.44	120.28	470.01	416.12	1.13	PASS
16113.00†	7586.00	7611.40	2277.47	16454.38	7823.00	7611.80	2683.34	120.28	470.01	421.57	1.12	PASS
16213.00†	7586.00	7711.40	2277.37	16554.38	7823.00	7711.80	2683.25	120.28	470.01	427.03	1.10	PASS
16313.00†	7586.00	7811.40	2277.27	16654.38	7823.00	7811.80	2683.15	120.28	470.01	432.49	1.09	PASS
16413.00†	7586.00	7911.40	2277.17	16754.38	7823.00	7911.80	2683.05	120.28	470.01	437.95	1.07	PASS
16513.00†	7586.00	8011.40	2277.07	16854.38	7823.00	8011.80	2682.95	120.28	470.01	443.41	1.06	PASS
16613.00†	7586.00	8111.40	2276.98	16954.38	7823.00	8111.80	2682.85	120.28	470.01	448.87	1.05	PASS
16713.00†	7586.00	8211.40	2276.88	17054.38	7823.00	8211.80	2682.76	120.28	470.01	454.34	1.03	PASS
16813.00†	7586.00	8311.40	2276.78	17154.38	7823.00	8311.80	2682.66	120.28	470.01	459.80	1.02	PASS
16913.00†	7586.00	8411.40	2276.68	17254.38	7823.00	8411.80	2682.56	120.28	470.01	465.27	1.01	PASS
17013.00†	7586.00	8511.40	2276.59	17354.38	7823.00	8511.80	2682.46	120.28	470.01	470.74	1.00	FAIL
17113.00†	7586.00	8611.40	2276.49	17454.38	7823.00	8611.80	2682.36	120.28	470.01	476.20	0.99	FAIL
17213.00†	7586.00	8711.40	2276.39	17554.38	7823.00	8711.80	2682.27	120.28	470.01	481.67	0.98	FAIL
17313.00†	7586.00	8811.40	2276.29	17654.38	7823.00	8811.80	2682.17	120.28	470.01	487.15	0.96	FAIL
17413.00†	7586.00	8911.40	2276.19	17754.38	7823.00	8911.80	2682.07	120.28	470.01	492.62	0.95	FAIL
17513.00†	7586.00	9011.40	2276.10	17854.38	7823.00	9011.80	2681.97	120.28	470.01	498.09	0.94	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 47 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#16 ACKARD NORTH 2-35-4CDH (600'FSL & 2160'FWL, SEC.02) Well: ACKARD NORTH 2-35-4CDH 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
17613.00†	7586.00	9111.40	2276.00	17954.38	7823.00	9111.80	2681.87	120.28	470.00	503.56	0.93	FAIL
17713.00†	7586.00	9211.40	2275.90	18054.38	7823.00	9211.80	2681.78	120.28	470.00	509.04	0.92	FAIL
17813.00†	7586.00	9311.40	2275.80	18154.38	7823.00	9311.80	2681.68	120.28	470.00	514.51	0.91	FAIL
17913.00†	7586.00	9411.40	2275.71	18254.38	7823.00	9411.80	2681.58	120.28	470.00	519.99	0.90	FAIL
18013.00†	7586.00	9511.40	2275.61	18354.38	7823.00	9511.80	2681.48	120.28	470.00	525.47	0.89	FAIL
18099.99	7586.00	9598.39	2275.52	18441.37	7823.00	9598.79	2681.40	120.28	470.00	530.23	0.89	FAIL

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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	1785.27	0.04	18.30	-11.89	59.34
8.5in Open Hole	1800.00	18444.07	16644.07	1785.27	7823.00	-11.89	59.34	2926.56	826.44

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-4CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18444.07	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-4CDH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 48 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-4CDH PWB Offset Wellpath: ACKARD NORTH 2-35-4CDH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 49 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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	-0.11	-29.99	-90.21	29.99	1.40	48.65	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.11	-29.99	-90.21	29.99	1.72	31.89	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.11	-29.99	-90.21	29.99	2.28	19.73	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.11	-29.99	-90.21	29.99	2.88	14.03	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.11	-29.99	-90.21	29.99	3.50	10.83	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.11	-29.99	-90.21	29.99	4.12	8.81	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.11	-29.99	-90.21	29.99	4.74	7.42	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.11	-29.99	-90.21	29.99	5.36	6.40	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.11	-29.99	-90.21	29.99	5.99	5.63	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.11	-29.99	-90.21	29.99	6.61	5.02	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.11	-29.99	-90.21	29.99	7.24	4.54	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.11	-29.99	-90.21	29.99	7.78	4.18	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.11	-29.99	160.93	30.02	7.86	4.14	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.11	-29.99	162.20	32.11	8.58	4.02	PASS
1313.00†	1312.80	-2.56	7.49	1312.96	1312.96	-0.12	-29.97	164.81	37.53	9.53	4.21	PASS
1413.00†	1412.38	-5.53	16.16	1414.05	1414.02	-1.16	-27.98	166.75	44.39	10.51	4.49	PASS
1513.00†	1511.57	-9.62	28.12	1515.38	1515.17	-3.85	-22.82	167.57	51.39	11.63	4.67	PASS
1613.00†	1610.26	-14.83	43.34	1616.94	1616.30	-8.21	-14.46	167.68	58.50	12.70	4.85	PASS
1713.00†	1708.33	-21.14	61.82	1718.74	1717.25	-14.24	-2.91	167.29	65.70	13.71	5.03	PASS
1813.00†	1805.66	-28.57	83.52	1820.77	1817.90	-21.94	11.86	166.56	73.00	14.58	5.21	PASS
1913.00†	1902.13	-37.09	108.42	1923.02	1918.12	-31.32	29.83	165.57	80.40	15.54	5.37	PASS
2013.00†	1997.62	-46.69	136.49	2025.48	2017.75	-42.37	51.02	164.40	87.92	16.50	5.52	PASS
2113.00†	2092.02	-57.36	167.70	2126.47	2115.19	-54.64	74.53	163.24	96.04	17.41	5.71	PASS
2209.17	2181.66	-68.63	200.64	2222.03	2207.31	-66.41	97.10	162.74	106.69	18.30	6.02	PASS
2213.00†	2185.21	-69.10	202.01	2225.84	2210.97	-66.88	97.99	162.73	107.18	18.35	6.04	PASS
2313.00†	2277.81	-81.32	237.73	2325.03	2306.58	-79.09	121.41	162.60	119.85	19.12	6.47	PASS
2413.00†	2370.41	-93.54	273.46	2424.22	2402.20	-91.31	144.83	162.50	132.51	19.97	6.84	PASS
2513.00†	2463.01	-105.76	309.18	2523.42	2497.81	-103.53	168.25	162.42	145.18	20.85	7.17	PASS
2613.00†	2555.60	-117.97	344.91	2622.61	2593.42	-115.74	191.67	162.35	157.85	21.77	7.46	PASS
2713.00†	2648.20	-130.19	380.63	2721.81	2689.04	-127.96	215.09	162.29	170.52	22.71	7.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 50 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	2740.80	-142.41	416.36	2821.00	2784.65	-140.18	238.51	162.24	183.19	23.68	7.95	PASS
2913.00†	2833.40	-154.63	452.08	2920.20	2880.26	-152.39	261.93	162.19	195.86	24.66	8.15	PASS
3013.00†	2926.00	-166.85	487.81	3019.39	2975.87	-164.61	285.35	162.15	208.53	25.67	8.33	PASS
3113.00†	3018.59	-179.07	523.53	3118.58	3071.49	-176.83	308.77	162.12	221.19	26.69	8.49	PASS
3213.00†	3111.19	-191.29	559.26	3217.78	3167.10	-189.04	332.19	162.08	233.86	27.73	8.63	PASS
3313.00†	3203.79	-203.51	594.98	3316.97	3262.71	-201.26	355.60	162.06	246.53	28.78	8.76	PASS
3413.00†	3296.39	-215.73	630.71	3416.17	3358.32	-213.48	379.02	162.03	259.20	29.84	8.87	PASS
3513.00†	3388.99	-227.95	666.43	3515.36	3453.94	-225.69	402.44	162.01	271.87	30.91	8.98	PASS
3613.00†	3481.59	-240.17	702.16	3614.55	3549.55	-237.91	425.86	161.99	284.54	31.99	9.07	PASS
3713.00†	3574.18	-252.39	737.88	3713.75	3645.16	-250.13	449.28	161.97	297.21	33.08	9.16	PASS
3813.00†	3666.78	-264.61	773.61	3812.94	3740.77	-262.34	472.70	161.95	309.88	34.18	9.24	PASS
3913.00†	3759.38	-276.83	809.33	3912.14	3836.39	-274.56	496.12	161.93	322.55	35.28	9.31	PASS
4013.00†	3851.98	-289.05	845.06	4011.33	3932.00	-286.78	519.54	161.92	335.22	36.39	9.37	PASS
4113.00†	3944.58	-301.27	880.78	4110.52	4027.61	-298.99	542.96	161.91	347.89	37.51	9.43	PASS
4213.00†	4037.17	-313.49	916.51	4209.72	4123.22	-311.21	566.38	161.89	360.56	38.63	9.49	PASS
4313.00†	4129.77	-325.71	952.23	4308.91	4218.84	-323.43	589.79	161.88	373.23	39.75	9.54	PASS
4413.00†	4222.37	-337.93	987.96	4408.11	4314.45	-335.64	613.21	161.87	385.90	40.88	9.59	PASS
4513.00†	4314.97	-350.15	1023.68	4507.30	4410.06	-347.86	636.63	161.86	398.57	42.02	9.63	PASS
4613.00†	4407.57	-362.37	1059.41	4606.50	4505.68	-360.08	660.05	161.85	411.24	43.15	9.67	PASS
4713.00†	4500.16	-374.59	1095.13	4705.69	4601.29	-372.29	683.47	161.84	423.91	44.29	9.71	PASS
4813.00†	4592.76	-386.81	1130.86	4804.88	4696.90	-384.51	706.89	161.83	436.58	45.44	9.74	PASS
4913.00†	4685.36	-399.03	1166.58	4904.08	4792.51	-396.73	730.31	161.82	449.25	46.58	9.78	PASS
5013.00†	4777.96	-411.25	1202.31	5003.27	4888.13	-408.94	753.73	161.81	461.92	47.73	9.81	PASS
5113.00†	4870.56	-423.47	1238.03	5102.47	4983.74	-421.16	777.15	161.81	474.59	48.88	9.84	PASS
5213.00†	4963.15	-435.69	1273.76	5201.66	5079.35	-433.38	800.57	161.80	487.26	50.04	9.86	PASS
5313.00†	5055.75	-447.91	1309.48	5300.85	5174.96	-445.60	823.98	161.79	499.93	51.19	9.89	PASS
5413.00†	5148.35	-460.13	1345.21	5400.05	5270.58	-457.81	847.40	161.79	512.60	52.35	9.91	PASS
5513.00†	5240.95	-472.35	1380.93	5499.24	5366.19	-470.03	870.82	161.78	525.27	53.51	9.93	PASS
5613.00†	5333.55	-484.56	1416.66	5598.44	5461.80	-482.25	894.24	161.78	537.93	54.67	9.96	PASS
5713.00†	5426.14	-496.78	1452.38	5697.63	5557.41	-494.46	917.66	161.77	550.60	55.84	9.98	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 51 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	5518.74	-509.00	1488.11	5796.83	5653.03	-506.68	941.08	161.76	563.27	57.00	9.99	PASS
5913.00†	5611.34	-521.22	1523.83	5896.02	5748.64	-518.90	964.50	161.76	575.94	58.17	10.01	PASS
6013.00†	5703.94	-533.44	1559.56	5995.21	5844.25	-531.11	987.92	161.76	588.61	59.33	10.03	PASS
6113.00†	5796.54	-545.66	1595.28	6094.41	5939.86	-543.33	1011.34	161.75	601.28	60.50	10.04	PASS
6213.00†	5889.13	-557.88	1631.01	6193.60	6035.48	-555.55	1034.76	161.75	613.95	61.67	10.06	PASS
6313.00†	5981.73	-570.10	1666.73	6292.80	6131.09	-567.76	1058.17	161.74	626.62	62.84	10.07	PASS
6413.00†	6074.33	-582.32	1702.46	6391.99	6226.70	-579.98	1081.59	161.74	639.29	64.01	10.09	PASS
6513.00†	6166.93	-594.54	1738.18	6491.18	6322.32	-592.20	1105.01	161.73	651.96	65.19	10.10	PASS
6613.00†	6259.53	-606.76	1773.91	6590.38	6417.93	-604.41	1128.43	161.73	664.63	66.36	10.11	PASS
6713.00†	6352.13	-618.98	1809.63	6689.57	6513.54	-616.63	1151.85	161.73	677.30	67.54	10.12	PASS
6813.00†	6444.72	-631.20	1845.36	6788.77	6609.15	-628.85	1175.27	161.72	689.97	68.71	10.14	PASS
6913.00†	6537.32	-643.42	1881.08	6887.96	6704.77	-641.06	1198.69	161.72	702.64	69.89	10.15	PASS
7013.00†	6629.92	-655.64	1916.81	6987.15	6800.38	-653.28	1222.11	161.72	715.31	71.07	10.16	PASS
7113.00†	6722.52	-667.86	1952.53	7086.35	6895.99	-665.50	1245.53	161.71	727.98	72.24	10.17	PASS
7213.00†	6815.12	-680.08	1988.26	7185.54	6991.60	-677.71	1268.95	161.71	740.65	73.42	10.18	PASS
7313.00†	6907.71	-692.30	2023.98	7284.74	7087.22	-689.93	1292.37	161.71	753.32	74.60	10.19	PASS
7397.45	6985.91	-702.62	2054.15	7368.51	7167.96	-700.25	1312.14	161.71	764.02	75.60	10.19	PASS
7413.00†	7000.33	-704.31	2059.72	7383.93	7182.83	-702.15	1315.78	165.60	765.99	75.79	10.19	PASS
7513.00†	7093.51	-705.12	2095.66	7483.00	7278.73	-709.01	1339.27	-168.11	778.74	77.12	10.18	PASS
7613.00†	7185.41	-688.57	2131.08	7583.12	7375.36	-698.97	1362.92	-145.85	791.37	77.95	10.24	PASS
7713.00†	7273.24	-655.17	2164.92	7684.50	7469.98	-671.33	1386.05	-131.03	803.50	78.11	10.37	PASS
7813.00†	7354.33	-605.94	2196.15	7787.21	7559.50	-626.29	1407.92	-121.69	814.75	77.55	10.59	PASS
7913.00†	7426.22	-542.36	2223.81	7891.25	7640.76	-564.66	1427.76	-115.66	824.76	76.39	10.89	PASS
8013.00†	7486.72	-466.38	2247.07	7996.55	7710.63	-487.95	1444.79	-111.69	833.22	74.86	11.23	PASS
8113.00†	7533.99	-380.29	2265.22	8102.93	7766.19	-398.42	1458.30	-109.09	839.86	73.24	11.57	PASS
8213.00†	7566.60	-286.72	2277.70	8210.15	7804.98	-299.07	1467.70	-107.50	844.44	71.83	11.86	PASS
8313.00†	7583.55	-188.51	2284.15	8317.90	7825.19	-193.51	1472.55	-106.72	846.82	70.90	12.05	PASS
8367.84	7586.00	-133.75	2285.04	8376.96	7828.00	-134.54	1473.18	-106.60	847.16	70.66	12.10	PASS
8413.00†	7586.00	-88.59	2284.99	8422.12	7828.00	-89.39	1473.13	-106.60	847.16	70.64	12.10	PASS
8513.00†	7586.00	11.41	2284.90	8522.12	7828.00	10.61	1473.04	-106.60	847.16	70.98	12.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 52 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	7586.00	111.41	2284.80	8622.12	7828.00	110.61	1472.94	-106.60	847.16	71.85	11.90	PASS
8713.00†	7586.00	211.41	2284.70	8722.12	7828.00	210.61	1472.84	-106.60	847.16	73.21	11.67	PASS
8813.00†	7586.00	311.41	2284.60	8822.12	7828.00	310.61	1472.74	-106.60	847.16	75.05	11.39	PASS
8913.00†	7586.00	411.41	2284.51	8922.12	7828.00	410.61	1472.65	-106.60	847.16	77.09	11.08	PASS
9013.00†	7586.00	511.41	2284.41	9022.12	7828.00	510.61	1472.55	-106.60	847.16	79.98	10.68	PASS
9113.00†	7586.00	611.41	2284.31	9122.12	7828.00	610.61	1472.45	-106.60	847.16	83.01	10.29	PASS
9213.00†	7586.00	711.41	2284.21	9222.12	7828.00	710.61	1472.35	-106.60	847.16	86.35	9.88	PASS
9313.00†	7586.00	811.41	2284.11	9322.12	7828.00	810.61	1472.26	-106.60	847.16	89.98	9.48	PASS
9413.00†	7586.00	911.41	2284.02	9422.12	7828.00	910.61	1472.16	-106.60	847.16	93.86	9.09	PASS
9513.00†	7586.00	1011.41	2283.92	9522.12	7828.00	1010.61	1472.06	-106.60	847.16	97.95	8.70	PASS
9613.00†	7586.00	1111.41	2283.82	9622.12	7828.00	1110.61	1471.96	-106.60	847.16	102.24	8.34	PASS
9713.00†	7586.00	1211.41	2283.72	9722.12	7828.00	1210.61	1471.87	-106.60	847.16	106.70	7.99	PASS
9813.00†	7586.00	1311.41	2283.63	9822.12	7828.00	1310.61	1471.77	-106.60	847.16	111.31	7.65	PASS
9913.00†	7586.00	1411.41	2283.53	9922.12	7828.00	1410.61	1471.67	-106.60	847.16	116.06	7.34	PASS
10013.00†	7586.00	1511.41	2283.43	10022.12	7828.00	1510.61	1471.57	-106.60	847.16	120.91	7.04	PASS
10113.00†	7586.00	1611.41	2283.33	10122.12	7828.00	1610.61	1471.48	-106.60	847.16	125.87	6.76	PASS
10213.00†	7586.00	1711.41	2283.23	10222.12	7828.00	1710.61	1471.38	-106.60	847.16	130.92	6.50	PASS
10313.00†	7586.00	1811.40	2283.14	10322.12	7828.00	1810.61	1471.28	-106.60	847.16	136.05	6.25	PASS
10413.00†	7586.00	1911.40	2283.04	10422.12	7828.00	1910.61	1471.18	-106.60	847.16	141.25	6.02	PASS
10513.00†	7586.00	2011.40	2282.94	10522.12	7828.00	2010.61	1471.09	-106.60	847.15	146.52	5.81	PASS
10613.00†	7586.00	2111.40	2282.84	10622.12	7828.00	2110.61	1470.99	-106.60	847.15	151.84	5.60	PASS
10713.00†	7586.00	2211.40	2282.75	10722.12	7828.00	2210.61	1470.89	-106.60	847.15	157.22	5.41	PASS
10813.00†	7586.00	2311.40	2282.65	10822.12	7828.00	2310.61	1470.79	-106.60	847.15	162.64	5.23	PASS
10913.00†	7586.00	2411.40	2282.55	10922.12	7828.00	2410.61	1470.70	-106.60	847.15	168.10	5.06	PASS
11013.00†	7586.00	2511.40	2282.45	11022.12	7828.00	2510.61	1470.60	-106.60	847.15	173.61	4.90	PASS
11113.00†	7586.00	2611.40	2282.35	11122.12	7828.00	2610.61	1470.50	-106.60	847.15	179.14	4.74	PASS
11213.00†	7586.00	2711.40	2282.26	11222.12	7828.00	2710.61	1470.41	-106.60	847.15	184.71	4.60	PASS
11313.00†	7586.00	2811.40	2282.16	11322.12	7828.00	2810.61	1470.31	-106.60	847.15	190.30	4.46	PASS
11413.00†	7586.00	2911.40	2282.06	11422.12	7828.00	2910.61	1470.21	-106.60	847.15	195.93	4.34	PASS
11513.00†	7586.00	3011.40	2281.96	11522.12	7828.00	3010.61	1470.11	-106.60	847.15	201.57	4.21	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 53 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	7586.00	3111.40	2281.87	11622.12	7828.00	3110.61	1470.02	-106.60	847.15	207.24	4.10	PASS
11713.00†	7586.00	3211.40	2281.77	11722.12	7828.00	3210.61	1469.92	-106.60	847.15	212.93	3.99	PASS
11813.00†	7586.00	3311.40	2281.67	11822.12	7828.00	3310.61	1469.82	-106.60	847.15	218.63	3.88	PASS
11913.00†	7586.00	3411.40	2281.57	11922.12	7828.00	3410.61	1469.72	-106.60	847.15	224.36	3.78	PASS
12013.00†	7586.00	3511.40	2281.47	12022.12	7828.00	3510.61	1469.63	-106.60	847.15	230.10	3.69	PASS
12113.00†	7586.00	3611.40	2281.38	12122.12	7828.00	3610.61	1469.53	-106.60	847.15	235.85	3.60	PASS
12213.00†	7586.00	3711.40	2281.28	12222.12	7828.00	3710.61	1469.43	-106.60	847.15	241.62	3.51	PASS
12313.00†	7586.00	3811.40	2281.18	12322.12	7828.00	3810.61	1469.33	-106.60	847.15	247.40	3.43	PASS
12413.00†	7586.00	3911.40	2281.08	12422.12	7828.00	3910.61	1469.24	-106.60	847.15	253.19	3.35	PASS
12513.00†	7586.00	4011.40	2280.99	12522.12	7828.00	4010.61	1469.14	-106.60	847.15	259.00	3.28	PASS
12613.00†	7586.00	4111.40	2280.89	12622.12	7828.00	4110.61	1469.04	-106.60	847.15	264.81	3.20	PASS
12713.00†	7586.00	4211.40	2280.79	12722.12	7828.00	4210.61	1468.94	-106.60	847.15	270.64	3.14	PASS
12813.00†	7586.00	4311.40	2280.69	12822.12	7828.00	4310.61	1468.85	-106.60	847.15	276.47	3.07	PASS
12913.00†	7586.00	4411.40	2280.59	12922.12	7828.00	4410.61	1468.75	-106.60	847.15	282.31	3.01	PASS
13013.00†	7586.00	4511.40	2280.50	13022.12	7828.00	4510.61	1468.65	-106.60	847.15	288.16	2.94	PASS
13113.00†	7586.00	4611.40	2280.40	13122.12	7828.00	4610.61	1468.55	-106.60	847.15	294.02	2.89	PASS
13213.00†	7586.00	4711.40	2280.30	13222.12	7828.00	4710.61	1468.46	-106.60	847.15	299.88	2.83	PASS
13313.00†	7586.00	4811.40	2280.20	13322.12	7828.00	4810.61	1468.36	-106.60	847.15	305.75	2.77	PASS
13413.00†	7586.00	4911.40	2280.11	13422.12	7828.00	4910.61	1468.26	-106.60	847.14	311.63	2.72	PASS
13513.00†	7586.00	5011.40	2280.01	13522.12	7828.00	5010.61	1468.16	-106.60	847.14	317.51	2.67	PASS
13613.00†	7586.00	5111.40	2279.91	13622.12	7828.00	5110.61	1468.07	-106.60	847.14	323.40	2.62	PASS
13713.00†	7586.00	5211.40	2279.81	13722.12	7828.00	5210.61	1467.97	-106.60	847.14	329.30	2.58	PASS
13813.00†	7586.00	5311.40	2279.71	13822.12	7828.00	5310.61	1467.87	-106.60	847.14	335.20	2.53	PASS
13913.00†	7586.00	5411.40	2279.62	13922.12	7828.00	5410.61	1467.77	-106.60	847.14	341.10	2.49	PASS
14013.00†	7586.00	5511.40	2279.52	14022.12	7828.00	5510.61	1467.68	-106.60	847.14	347.01	2.44	PASS
14113.00†	7586.00	5611.40	2279.42	14122.12	7828.00	5610.61	1467.58	-106.60	847.14	352.92	2.40	PASS
14213.00†	7586.00	5711.40	2279.32	14222.12	7828.00	5710.61	1467.48	-106.60	847.14	358.84	2.36	PASS
14313.00†	7586.00	5811.40	2279.23	14322.12	7828.00	5810.61	1467.38	-106.60	847.14	364.76	2.33	PASS
14413.00†	7586.00	5911.40	2279.13	14422.12	7828.00	5910.61	1467.29	-106.60	847.14	370.68	2.29	PASS
14513.00†	7586.00	6011.40	2279.03	14522.12	7828.00	6010.61	1467.19	-106.60	847.14	376.61	2.25	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 54 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)												
Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	7586.00	6111.40	2278.93	14622.12	7828.00	6110.61	1467.09	-106.60	847.14	382.54	2.22	PASS
14713.00†	7586.00	6211.40	2278.83	14722.12	7828.00	6210.61	1467.00	-106.60	847.14	388.48	2.18	PASS
14813.00†	7586.00	6311.40	2278.74	14822.12	7828.00	6310.61	1466.90	-106.60	847.14	394.41	2.15	PASS
14913.00†	7586.00	6411.40	2278.64	14922.12	7828.00	6410.61	1466.80	-106.60	847.14	400.35	2.12	PASS
15013.00†	7586.00	6511.40	2278.54	15022.12	7828.00	6510.61	1466.70	-106.60	847.14	406.30	2.09	PASS
15113.00†	7586.00	6611.40	2278.44	15122.12	7828.00	6610.61	1466.61	-106.60	847.14	412.24	2.06	PASS
15213.00†	7586.00	6711.40	2278.35	15222.12	7828.00	6710.61	1466.51	-106.60	847.14	418.19	2.03	PASS
15313.00†	7586.00	6811.40	2278.25	15322.12	7828.00	6810.61	1466.41	-106.60	847.14	424.14	2.00	PASS
15413.00†	7586.00	6911.40	2278.15	15422.12	7828.00	6910.61	1466.31	-106.60	847.14	430.10	1.97	PASS
15513.00†	7586.00	7011.40	2278.05	15522.12	7828.00	7010.61	1466.22	-106.60	847.14	436.05	1.94	PASS
15613.00†	7586.00	7111.40	2277.95	15622.12	7828.00	7110.61	1466.12	-106.60	847.14	442.01	1.92	PASS
15713.00†	7586.00	7211.40	2277.86	15722.12	7828.00	7210.61	1466.02	-106.60	847.14	447.97	1.89	PASS
15813.00†	7586.00	7311.40	2277.76	15822.12	7828.00	7310.61	1465.92	-106.60	847.14	453.93	1.87	PASS
15913.00†	7586.00	7411.40	2277.66	15922.12	7828.00	7410.61	1465.83	-106.60	847.14	459.89	1.84	PASS
16013.00†	7586.00	7511.40	2277.56	16022.12	7828.00	7510.61	1465.73	-106.60	847.14	465.86	1.82	PASS
16113.00†	7586.00	7611.40	2277.47	16122.12	7828.00	7610.61	1465.63	-106.60	847.14	471.83	1.80	PASS
16213.00†	7586.00	7711.40	2277.37	16222.12	7828.00	7710.61	1465.53	-106.60	847.14	477.80	1.77	PASS
16313.00†	7586.00	7811.40	2277.27	16322.12	7828.00	7810.61	1465.44	-106.60	847.14	483.77	1.75	PASS
16413.00†	7586.00	7911.40	2277.17	16422.12	7828.00	7910.61	1465.34	-106.60	847.13	489.74	1.73	PASS
16513.00†	7586.00	8011.40	2277.07	16522.12	7828.00	8010.61	1465.24	-106.60	847.13	495.71	1.71	PASS
16613.00†	7586.00	8111.40	2276.98	16622.12	7828.00	8110.61	1465.14	-106.60	847.13	501.69	1.69	PASS
16713.00†	7586.00	8211.40	2276.88	16722.12	7828.00	8210.61	1465.05	-106.60	847.13	507.66	1.67	PASS
16813.00†	7586.00	8311.40	2276.78	16822.12	7828.00	8310.61	1464.95	-106.60	847.13	513.64	1.65	PASS
16913.00†	7586.00	8411.40	2276.68	16922.12	7828.00	8410.61	1464.85	-106.60	847.13	519.62	1.63	PASS
17013.00†	7586.00	8511.40	2276.59	17022.12	7828.00	8510.61	1464.75	-106.60	847.13	525.60	1.61	PASS
17113.00†	7586.00	8611.40	2276.49	17122.12	7828.00	8610.61	1464.66	-106.60	847.13	531.58	1.59	PASS
17213.00†	7586.00	8711.40	2276.39	17222.12	7828.00	8710.61	1464.56	-106.60	847.13	537.57	1.58	PASS
17313.00†	7586.00	8811.40	2276.29	17322.12	7828.00	8810.61	1464.46	-106.60	847.13	543.55	1.56	PASS
17413.00†	7586.00	8911.40	2276.19	17422.12	7828.00	8910.61	1464.36	-106.60	847.13	549.54	1.54	PASS
17513.00†	7586.00	9011.40	2276.10	17522.12	7828.00	9010.61	1464.27	-106.60	847.13	555.52	1.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 55 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#12 ACKARD NORTH 2-35-3CDH (600'FSL & 2100'FWL, SEC.02) Well: ACKARD NORTH 2-35-3CDH 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†	7586.00	9111.40	2276.00	17622.12	7828.00	9110.61	1464.17	-106.60	847.13	561.51	1.51	PASS
17713.00†	7586.00	9211.40	2275.90	17722.12	7828.00	9210.61	1464.07	-106.60	847.13	567.50	1.49	PASS
17813.00†	7586.00	9311.40	2275.80	17822.12	7828.00	9310.61	1463.98	-106.60	847.13	573.49	1.48	PASS
17913.00†	7586.00	9411.40	2275.71	17922.12	7828.00	9410.61	1463.88	-106.60	847.13	579.48	1.46	PASS
18013.00†	7586.00	9511.40	2275.61	18022.12	7828.00	9510.61	1463.78	-106.60	847.13	585.47	1.45	PASS
18094.41†	7586.00	9592.81	2275.53	18103.54	7828.00	9592.02	1463.70	-106.60	847.13	590.35	1.44	PASS
18099.99	7586.00	9598.39	2275.52	18103.54	7828.00	9592.02	1463.70	-106.60	847.15	589.76	1.44	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH 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: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH 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	1797.47	-0.07	-18.28	-6.20	-6.52
8.5in Open Hole	1800.00	18103.54	16303.54	1797.47	7828.00	-6.20	-6.52	2923.62	436.99

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18103.54	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3CDH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 56 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3CDH PWB Offset Wellpath: ACKARD NORTH 2-35-3CDH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 57 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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	-0.16	-45.00	-90.21	45.00	1.40	73.67	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.16	-45.00	-90.21	45.00	1.72	48.28	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.16	-45.00	-90.21	45.00	2.28	29.88	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.16	-45.00	-90.21	45.00	2.88	21.24	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.16	-45.00	-90.21	45.00	3.50	16.41	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.16	-45.00	-90.21	45.00	4.12	13.34	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.16	-45.00	-90.21	45.00	4.74	11.23	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.16	-45.00	-90.21	45.00	5.36	9.69	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.16	-45.00	-90.21	45.00	5.99	8.53	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.16	-45.00	-90.21	45.00	6.61	7.61	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.16	-45.00	-90.21	45.00	7.24	6.87	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.16	-45.00	-90.21	45.00	7.78	6.33	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.16	-45.00	160.92	45.03	7.86	6.26	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.16	-45.00	161.78	47.11	8.58	5.95	PASS
1313.00†	1312.80	-2.56	7.49	1312.80	1312.80	-0.16	-45.00	163.69	52.55	9.53	5.93	PASS
1413.00†	1412.38	-5.53	16.16	1412.62	1412.62	-0.18	-44.98	166.04	61.38	10.43	6.29	PASS
1513.00†	1511.57	-9.62	28.12	1514.21	1514.18	-1.32	-43.04	167.70	71.69	11.37	6.71	PASS
1613.00†	1610.26	-14.83	43.34	1616.16	1615.96	-4.32	-37.99	168.44	82.21	12.44	6.99	PASS
1713.00†	1708.33	-21.14	61.82	1718.47	1717.81	-9.18	-29.79	168.55	92.87	13.49	7.26	PASS
1813.00†	1805.66	-28.57	83.52	1821.12	1819.60	-15.91	-18.42	168.23	103.67	14.38	7.53	PASS
1913.00†	1902.13	-37.09	108.42	1924.11	1921.19	-24.53	-3.87	167.60	114.59	15.35	7.78	PASS
2013.00†	1997.62	-46.69	136.49	2027.43	2022.43	-35.05	13.87	166.73	125.64	16.32	8.00	PASS
2113.00†	2092.02	-57.36	167.70	2131.07	2123.17	-47.45	34.82	165.68	136.84	17.28	8.21	PASS
2209.17	2181.66	-68.63	200.64	2228.11	2216.80	-60.43	56.73	164.69	148.36	18.17	8.46	PASS
2213.00†	2185.21	-69.10	202.01	2231.91	2220.47	-60.95	57.59	164.66	148.88	18.20	8.47	PASS
2313.00†	2277.81	-81.32	237.73	2330.99	2316.01	-74.32	80.17	163.98	162.28	19.02	8.82	PASS
2413.00†	2370.41	-93.54	273.46	2430.07	2411.56	-87.69	102.74	163.41	175.71	19.82	9.16	PASS
2513.00†	2463.01	-105.76	309.18	2529.16	2507.10	-101.06	125.31	162.91	189.15	20.71	9.42	PASS
2613.00†	2555.60	-117.97	344.91	2628.24	2602.64	-114.43	147.88	162.49	202.60	21.64	9.64	PASS
2713.00†	2648.20	-130.19	380.63	2727.32	2698.19	-127.80	170.45	162.11	216.06	22.61	9.83	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 58 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	2740.80	-142.41	416.36	2826.40	2793.73	-141.18	193.02	161.78	229.53	23.62	9.99	PASS
2913.00†	2833.40	-154.63	452.08	2925.48	2889.28	-154.55	215.59	161.49	243.01	24.65	10.12	PASS
3013.00†	2926.00	-166.85	487.81	3024.56	2984.82	-167.92	238.16	161.22	256.49	25.71	10.23	PASS
3113.00†	3018.59	-179.07	523.53	3123.64	3080.37	-181.29	260.73	160.99	269.98	26.80	10.32	PASS
3213.00†	3111.19	-191.29	559.26	3222.72	3175.91	-194.66	283.30	160.77	283.47	27.90	10.40	PASS
3313.00†	3203.79	-203.51	594.98	3321.80	3271.46	-208.03	305.87	160.58	296.96	29.02	10.46	PASS
3413.00†	3296.39	-215.73	630.71	3420.88	3367.00	-221.40	328.44	160.40	310.46	30.16	10.52	PASS
3513.00†	3388.99	-227.95	666.43	3519.96	3462.54	-234.77	351.01	160.24	323.96	31.31	10.56	PASS
3613.00†	3481.59	-240.17	702.16	3619.04	3558.09	-248.15	373.58	160.09	337.46	32.48	10.60	PASS
3713.00†	3574.18	-252.39	737.88	3718.12	3653.63	-261.52	396.15	159.95	350.97	33.65	10.63	PASS
3813.00†	3666.78	-264.61	773.61	3817.20	3749.18	-274.89	418.72	159.82	364.47	34.84	10.66	PASS
3913.00†	3759.38	-276.83	809.33	3916.28	3844.72	-288.26	441.29	159.70	377.98	36.04	10.68	PASS
4013.00†	3851.98	-289.05	845.06	4015.36	3940.27	-301.63	463.86	159.59	391.49	37.24	10.70	PASS
4113.00†	3944.58	-301.27	880.78	4114.44	4035.81	-315.00	486.43	159.49	405.00	38.45	10.71	PASS
4213.00†	4037.17	-313.49	916.51	4213.52	4131.36	-328.37	509.00	159.39	418.52	39.67	10.72	PASS
4313.00†	4129.77	-325.71	952.23	4312.60	4226.90	-341.75	531.57	159.30	432.03	40.89	10.73	PASS
4413.00†	4222.37	-337.93	987.96	4411.68	4322.44	-355.12	554.14	159.21	445.54	42.12	10.74	PASS
4513.00†	4314.97	-350.15	1023.68	4510.77	4417.99	-368.49	576.71	159.13	459.06	43.36	10.75	PASS
4613.00†	4407.57	-362.37	1059.41	4609.85	4513.53	-381.86	599.28	159.06	472.58	44.60	10.75	PASS
4713.00†	4500.16	-374.59	1095.13	4708.93	4609.08	-395.23	621.85	158.99	486.09	45.84	10.75	PASS
4813.00†	4592.76	-386.81	1130.86	4808.01	4704.62	-408.60	644.42	158.92	499.61	47.09	10.76	PASS
4913.00†	4685.36	-399.03	1166.58	4907.09	4800.17	-421.97	666.99	158.85	513.13	48.34	10.76	PASS
5013.00†	4777.96	-411.25	1202.31	5006.17	4895.71	-435.35	689.56	158.79	526.65	49.60	10.76	PASS
5113.00†	4870.56	-423.47	1238.03	5105.25	4991.25	-448.72	712.13	158.74	540.17	50.86	10.76	PASS
5213.00†	4963.15	-435.69	1273.76	5204.33	5086.80	-462.09	734.70	158.68	553.69	52.12	10.76	PASS
5313.00†	5055.75	-447.91	1309.48	5303.41	5182.34	-475.46	757.27	158.63	567.21	53.38	10.75	PASS
5413.00†	5148.35	-460.13	1345.21	5402.49	5277.89	-488.83	779.84	158.58	580.73	54.65	10.75	PASS
5513.00†	5240.95	-472.35	1380.93	5501.57	5373.43	-502.20	802.41	158.53	594.25	55.92	10.75	PASS
5613.00†	5333.55	-484.56	1416.66	5600.65	5468.98	-515.57	824.98	158.49	607.77	57.19	10.75	PASS
5713.00†	5426.14	-496.78	1452.38	5699.73	5564.52	-528.94	847.55	158.44	621.29	58.47	10.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 59 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)												
Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	5518.74	-509.00	1488.11	5798.81	5660.07	-542.32	870.12	158.40	634.81	59.74	10.74	PASS
5913.00†	5611.34	-521.22	1523.83	5897.89	5755.61	-555.69	892.69	158.36	648.34	61.02	10.74	PASS
6013.00†	5703.94	-533.44	1559.56	5996.97	5851.15	-569.06	915.26	158.32	661.86	62.30	10.73	PASS
6113.00†	5796.54	-545.66	1595.28	6096.05	5946.70	-582.43	937.83	158.29	675.38	63.58	10.73	PASS
6213.00†	5889.13	-557.88	1631.01	6195.13	6042.24	-595.80	960.40	158.25	688.91	64.86	10.73	PASS
6313.00†	5981.73	-570.10	1666.73	6294.21	6137.79	-609.17	982.97	158.22	702.43	66.15	10.72	PASS
6413.00†	6074.33	-582.32	1702.46	6393.29	6233.33	-622.54	1005.54	158.19	715.95	67.43	10.72	PASS
6513.00†	6166.93	-594.54	1738.18	6492.37	6328.88	-635.92	1028.11	158.15	729.48	68.72	10.72	PASS
6613.00†	6259.53	-606.76	1773.91	6591.46	6424.42	-649.29	1050.68	158.12	743.00	70.01	10.71	PASS
6713.00†	6352.13	-618.98	1809.63	6690.54	6519.97	-662.66	1073.25	158.10	756.53	71.29	10.71	PASS
6813.00†	6444.72	-631.20	1845.36	6789.62	6615.51	-676.03	1095.82	158.07	770.05	72.58	10.70	PASS
6913.00†	6537.32	-643.42	1881.08	6888.70	6711.05	-689.40	1118.39	158.04	783.58	73.88	10.70	PASS
7013.00†	6629.92	-655.64	1916.81	6987.78	6806.60	-702.77	1140.96	158.01	797.10	75.17	10.70	PASS
7113.00†	6722.52	-667.86	1952.53	7095.83	6911.48	-707.51	1165.81	158.69	810.07	75.64	10.80	PASS
7213.00†	6815.12	-680.08	1988.26	7197.41	7009.21	-693.45	1189.09	160.58	822.51	74.59	11.12	PASS
7313.00†	6907.71	-692.30	2023.98	7287.43	7092.60	-666.34	1209.06	163.19	836.03	72.63	11.61	PASS
7397.45	6985.91	-702.62	2054.15	7353.08	7150.27	-638.27	1222.94	165.58	849.75	70.80	12.11	PASS
7413.00†	7000.33	-704.31	2059.72	7364.25	7159.75	-632.83	1225.23	170.02	852.58	70.47	12.21	PASS
7513.00†	7093.51	-705.12	2095.66	7434.13	7216.53	-594.57	1238.97	-159.95	872.51	68.75	12.81	PASS
7613.00†	7185.41	-688.57	2131.08	7501.32	7266.46	-551.34	1251.12	-134.12	894.28	67.62	13.35	PASS
7713.00†	7273.24	-655.17	2164.92	7566.56	7309.90	-503.89	1261.75	-116.06	916.49	66.87	13.84	PASS
7813.00†	7354.33	-605.94	2196.15	7630.38	7347.04	-452.85	1270.92	-103.88	937.84	66.35	14.28	PASS
7913.00†	7426.22	-542.36	2223.81	7693.14	7377.95	-398.81	1278.64	-95.47	957.23	65.90	14.67	PASS
8013.00†	7486.72	-466.38	2247.07	7755.14	7402.66	-342.33	1284.90	-89.60	973.77	65.51	15.02	PASS
8113.00†	7533.99	-380.29	2265.22	7816.58	7421.14	-283.96	1289.69	-85.58	986.75	65.20	15.29	PASS
8213.00†	7566.60	-286.72	2277.70	7877.64	7433.38	-224.26	1293.02	-83.04	995.62	64.92	15.49	PASS
8313.00†	7583.55	-188.51	2284.15	7938.47	7439.35	-163.78	1294.86	-81.79	1000.05	64.77	15.60	PASS
8367.84	7586.00	-133.75	2285.04	7975.48	7440.00	-126.78	1295.27	-81.61	1000.50	64.63	15.64	PASS
8413.00†	7586.00	-88.59	2284.99	8020.64	7440.00	-81.62	1295.59	-81.61	1000.14	64.39	15.70	PASS
8513.00†	7586.00	11.41	2284.90	8120.64	7440.00	18.37	1296.30	-81.60	999.35	64.24	15.72	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 60 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	7586.00	111.41	2284.80	8220.63	7440.00	118.37	1297.00	-81.59	998.55	64.71	15.59	PASS
8713.00†	7586.00	211.41	2284.70	8320.63	7440.00	218.36	1297.71	-81.59	997.76	65.77	15.32	PASS
8813.00†	7586.00	311.41	2284.60	8420.63	7440.00	318.36	1298.41	-81.58	996.97	67.40	14.94	PASS
8913.00†	7586.00	411.41	2284.51	8520.62	7440.00	418.35	1299.11	-81.57	996.17	69.56	14.46	PASS
9013.00†	7586.00	511.41	2284.41	8620.62	7440.00	518.34	1299.82	-81.57	995.38	71.94	13.96	PASS
9113.00†	7586.00	611.41	2284.31	8720.62	7440.00	618.34	1300.52	-81.56	994.58	75.24	13.34	PASS
9213.00†	7586.00	711.41	2284.21	8820.61	7440.00	718.33	1301.23	-81.55	993.79	78.66	12.74	PASS
9313.00†	7586.00	811.41	2284.11	8920.61	7440.00	818.33	1301.93	-81.55	993.00	82.42	12.14	PASS
9413.00†	7586.00	911.41	2284.02	9020.61	7440.00	918.32	1302.64	-81.54	992.20	86.45	11.56	PASS
9513.00†	7586.00	1011.41	2283.92	9120.60	7440.00	1018.32	1303.34	-81.53	991.41	90.73	11.01	PASS
9613.00†	7586.00	1111.41	2283.82	9220.60	7440.00	1118.31	1304.05	-81.52	990.62	95.22	10.47	PASS
9713.00†	7586.00	1211.41	2283.72	9320.60	7440.00	1218.30	1304.75	-81.52	989.82	99.89	9.97	PASS
9813.00†	7586.00	1311.41	2283.63	9420.59	7440.00	1318.30	1305.46	-81.51	989.03	104.73	9.50	PASS
9913.00†	7586.00	1411.41	2283.53	9520.59	7440.00	1418.29	1306.16	-81.50	988.23	109.69	9.06	PASS
10013.00†	7586.00	1511.41	2283.43	9620.59	7440.00	1518.29	1306.87	-81.50	987.44	114.78	8.65	PASS
10113.00†	7586.00	1611.41	2283.33	9720.59	7440.00	1618.28	1307.57	-81.49	986.65	119.98	8.27	PASS
10213.00†	7586.00	1711.41	2283.23	9820.58	7440.00	1718.28	1308.28	-81.48	985.85	125.26	7.91	PASS
10313.00†	7586.00	1811.40	2283.14	9920.58	7440.00	1818.27	1308.98	-81.48	985.06	130.62	7.58	PASS
10413.00†	7586.00	1911.40	2283.04	10020.58	7440.00	1918.26	1309.68	-81.47	984.27	136.06	7.27	PASS
10513.00†	7586.00	2011.40	2282.94	10120.57	7440.00	2018.26	1310.39	-81.46	983.47	141.55	6.98	PASS
10613.00†	7586.00	2111.40	2282.84	10220.57	7440.00	2118.25	1311.09	-81.46	982.68	147.10	6.71	PASS
10713.00†	7586.00	2211.40	2282.75	10320.57	7440.00	2218.25	1311.80	-81.45	981.89	152.70	6.46	PASS
10813.00†	7586.00	2311.40	2282.65	10420.56	7440.00	2318.24	1312.50	-81.44	981.09	158.35	6.22	PASS
10913.00†	7586.00	2411.40	2282.55	10520.56	7440.00	2418.24	1313.21	-81.44	980.30	164.03	6.00	PASS
11013.00†	7586.00	2511.40	2282.45	10620.56	7440.00	2518.23	1313.91	-81.43	979.51	169.75	5.79	PASS
11113.00†	7586.00	2611.40	2282.35	10720.55	7440.00	2618.22	1314.62	-81.42	978.71	175.50	5.60	PASS
11213.00†	7586.00	2711.40	2282.26	10820.55	7440.00	2718.22	1315.32	-81.41	977.92	181.28	5.41	PASS
11313.00†	7586.00	2811.40	2282.16	10920.55	7440.00	2818.21	1316.03	-81.41	977.13	187.09	5.24	PASS
11413.00†	7586.00	2911.40	2282.06	11020.54	7440.00	2918.21	1316.73	-81.40	976.33	192.92	5.08	PASS
11513.00†	7586.00	3011.40	2281.96	11120.54	7440.00	3018.20	1317.44	-81.39	975.54	198.77	4.92	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 61 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	7586.00	3111.40	2281.87	11220.54	7440.00	3118.20	1318.14	-81.39	974.75	204.64	4.78	PASS
11713.00†	7586.00	3211.40	2281.77	11320.53	7440.00	3218.19	1318.84	-81.38	973.95	210.53	4.64	PASS
11813.00†	7586.00	3311.40	2281.67	11420.53	7440.00	3318.18	1319.55	-81.37	973.16	216.44	4.51	PASS
11913.00†	7586.00	3411.40	2281.57	11520.53	7440.00	3418.18	1320.25	-81.36	972.37	222.36	4.38	PASS
12013.00†	7586.00	3511.40	2281.47	11620.52	7440.00	3518.17	1320.96	-81.36	971.57	228.30	4.27	PASS
12113.00†	7586.00	3611.40	2281.38	11720.52	7440.00	3618.17	1321.66	-81.35	970.78	234.24	4.15	PASS
12213.00†	7586.00	3711.40	2281.28	11820.52	7440.00	3718.16	1322.37	-81.34	969.99	240.20	4.05	PASS
12313.00†	7586.00	3811.40	2281.18	11920.51	7440.00	3818.16	1323.07	-81.34	969.19	246.18	3.95	PASS
12413.00†	7586.00	3911.40	2281.08	12020.51	7440.00	3918.15	1323.78	-81.33	968.40	252.16	3.85	PASS
12513.00†	7586.00	4011.40	2280.99	12120.51	7440.00	4018.14	1324.48	-81.32	967.61	258.15	3.76	PASS
12613.00†	7586.00	4111.40	2280.89	12220.50	7440.00	4118.14	1325.19	-81.31	966.81	264.15	3.67	PASS
12713.00†	7586.00	4211.40	2280.79	12320.50	7440.00	4218.13	1325.89	-81.31	966.02	270.16	3.58	PASS
12813.00†	7586.00	4311.40	2280.69	12420.50	7440.00	4318.13	1326.60	-81.30	965.23	276.18	3.50	PASS
12913.00†	7586.00	4411.40	2280.59	12520.50	7440.00	4418.12	1327.30	-81.29	964.43	282.20	3.42	PASS
13013.00†	7586.00	4511.40	2280.50	12620.49	7440.00	4518.12	1328.00	-81.29	963.64	288.23	3.35	PASS
13113.00†	7586.00	4611.40	2280.40	12720.49	7440.00	4618.11	1328.71	-81.28	962.85	294.27	3.28	PASS
13213.00†	7586.00	4711.40	2280.30	12820.49	7440.00	4718.10	1329.41	-81.27	962.05	300.31	3.21	PASS
13313.00†	7586.00	4811.40	2280.20	12920.48	7440.00	4818.10	1330.12	-81.26	961.26	306.36	3.14	PASS
13413.00†	7586.00	4911.40	2280.11	13020.48	7440.00	4918.09	1330.82	-81.26	960.47	312.41	3.08	PASS
13513.00†	7586.00	5011.40	2280.01	13120.48	7440.00	5018.09	1331.53	-81.25	959.67	318.47	3.02	PASS
13613.00†	7586.00	5111.40	2279.91	13220.47	7440.00	5118.08	1332.23	-81.24	958.88	324.53	2.96	PASS
13713.00†	7586.00	5211.40	2279.81	13320.47	7440.00	5218.08	1332.94	-81.23	958.09	330.60	2.90	PASS
13813.00†	7586.00	5311.40	2279.71	13420.47	7440.00	5318.07	1333.64	-81.23	957.29	336.67	2.85	PASS
13913.00†	7586.00	5411.40	2279.62	13520.46	7440.00	5418.06	1334.35	-81.22	956.50	342.75	2.79	PASS
14013.00†	7586.00	5511.40	2279.52	13620.46	7440.00	5518.06	1335.05	-81.21	955.71	348.82	2.74	PASS
14113.00†	7586.00	5611.40	2279.42	13720.46	7440.00	5618.05	1335.76	-81.21	954.92	354.91	2.69	PASS
14213.00†	7586.00	5711.40	2279.32	13820.45	7440.00	5718.05	1336.46	-81.20	954.12	360.99	2.65	PASS
14313.00†	7586.00	5811.40	2279.23	13920.45	7440.00	5818.04	1337.16	-81.19	953.33	367.08	2.60	PASS
14413.00†	7586.00	5911.40	2279.13	14020.45	7440.00	5918.04	1337.87	-81.18	952.54	373.17	2.56	PASS
14513.00†	7586.00	6011.40	2279.03	14120.44	7440.00	6018.03	1338.57	-81.18	951.74	379.27	2.51	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 62 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	7586.00	6111.40	2278.93	14220.44	7440.00	6118.02	1339.28	-81.17	950.95	385.36	2.47	PASS
14713.00†	7586.00	6211.40	2278.83	14320.44	7440.00	6218.02	1339.98	-81.16	950.16	391.46	2.43	PASS
14813.00†	7586.00	6311.40	2278.74	14420.43	7440.00	6318.01	1340.69	-81.15	949.37	397.57	2.39	PASS
14913.00†	7586.00	6411.40	2278.64	14520.43	7440.00	6418.01	1341.39	-81.15	948.57	403.67	2.35	PASS
15013.00†	7586.00	6511.40	2278.54	14620.43	7440.00	6518.00	1342.10	-81.14	947.78	409.78	2.32	PASS
15113.00†	7586.00	6611.40	2278.44	14720.42	7440.00	6618.00	1342.80	-81.13	946.99	415.88	2.28	PASS
15213.00†	7586.00	6711.40	2278.35	14820.42	7440.00	6717.99	1343.51	-81.12	946.19	422.00	2.24	PASS
15313.00†	7586.00	6811.40	2278.25	14920.42	7440.00	6817.98	1344.21	-81.12	945.40	428.11	2.21	PASS
15413.00†	7586.00	6911.40	2278.15	15020.41	7440.00	6917.98	1344.92	-81.11	944.61	434.22	2.18	PASS
15513.00†	7586.00	7011.40	2278.05	15120.41	7440.00	7017.97	1345.62	-81.10	943.82	440.34	2.15	PASS
15613.00†	7586.00	7111.40	2277.95	15220.41	7440.00	7117.97	1346.32	-81.09	943.02	446.45	2.11	PASS
15713.00†	7586.00	7211.40	2277.86	15320.41	7440.00	7217.96	1347.03	-81.09	942.23	452.57	2.08	PASS
15813.00†	7586.00	7311.40	2277.76	15420.40	7440.00	7317.96	1347.73	-81.08	941.44	458.69	2.05	PASS
15913.00†	7586.00	7411.40	2277.66	15520.40	7440.00	7417.95	1348.44	-81.07	940.64	464.81	2.03	PASS
16013.00†	7586.00	7511.40	2277.56	15620.40	7440.00	7517.94	1349.14	-81.06	939.85	470.94	2.00	PASS
16113.00†	7586.00	7611.40	2277.47	15720.39	7440.00	7617.94	1349.85	-81.06	939.06	477.06	1.97	PASS
16213.00†	7586.00	7711.40	2277.37	15820.39	7440.00	7717.93	1350.55	-81.05	938.27	483.19	1.94	PASS
16313.00†	7586.00	7811.40	2277.27	15920.39	7440.00	7817.93	1351.26	-81.04	937.47	489.31	1.92	PASS
16413.00†	7586.00	7911.40	2277.17	16020.38	7440.00	7917.92	1351.96	-81.03	936.68	495.44	1.89	PASS
16513.00†	7586.00	8011.40	2277.07	16120.38	7440.00	8017.92	1352.67	-81.03	935.89	501.57	1.87	PASS
16613.00†	7586.00	8111.40	2276.98	16220.38	7440.00	8117.91	1353.37	-81.02	935.10	507.70	1.84	PASS
16713.00†	7586.00	8211.40	2276.88	16320.37	7440.00	8217.90	1354.08	-81.01	934.30	513.83	1.82	PASS
16813.00†	7586.00	8311.40	2276.78	16420.37	7440.00	8317.90	1354.78	-81.00	933.51	519.96	1.80	PASS
16913.00†	7586.00	8411.40	2276.68	16520.37	7440.00	8417.89	1355.49	-80.99	932.72	526.09	1.77	PASS
17013.00†	7586.00	8511.40	2276.59	16620.36	7440.00	8517.89	1356.19	-80.99	931.93	532.22	1.75	PASS
17113.00†	7586.00	8611.40	2276.49	16720.36	7440.00	8617.88	1356.89	-80.98	931.13	538.36	1.73	PASS
17213.00†	7586.00	8711.40	2276.39	16820.36	7440.00	8717.88	1357.60	-80.97	930.34	544.49	1.71	PASS
17313.00†	7586.00	8811.40	2276.29	16920.35	7440.00	8817.87	1358.30	-80.96	929.55	550.63	1.69	PASS
17413.00†	7586.00	8911.40	2276.19	17020.35	7440.00	8917.86	1359.01	-80.96	928.76	556.76	1.67	PASS
17513.00†	7586.00	9011.40	2276.10	17120.35	7440.00	9017.86	1359.71	-80.95	927.96	562.90	1.65	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 63 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#11 ACKARD NORTH 2-35-3NAH (600'FSL & 2085'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NAH 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†	7586.00	9111.40	2276.00	17220.34	7440.00	9117.85	1360.42	-80.94	927.17	569.04	1.63	PASS	
17713.00†	7586.00	9211.40	2275.90	17320.34	7440.00	9217.85	1361.12	-80.93	926.38	575.17	1.61	PASS	
17813.00†	7586.00	9311.40	2275.80	17420.34	7440.00	9317.84	1361.83	-80.92	925.59	581.31	1.59	PASS	
17913.00†	7586.00	9411.40	2275.71	17520.33	7440.00	9417.84	1362.53	-80.92	924.79	587.45	1.57	PASS	
18013.00†	7586.00	9511.40	2275.61	17620.33	7440.00	9517.83	1363.24	-80.91	924.00	593.59	1.56	PASS	
18086.34†	7586.00	9584.74	2275.54	17693.67	7440.00	9591.17	1363.75	-80.90	923.42	598.09	1.54	PASS	
18099.99	7586.00	9598.39	2275.52	17693.67	7440.00	9591.17	1363.75	-80.90	923.41	596.89	1.55	PASS	

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH 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: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH 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	1798.70	-0.10	-27.43	-4.43	-20.12
8.5in Open Hole	1800.00	17693.67	15893.67	1798.70	7440.00	-4.43	-20.12	2923.34	401.95

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17693.71	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NAH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 64 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NAH PWB Offset Wellpath: ACKARD NORTH 2-35-3NAH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 65 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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	-0.22	-59.96	-90.21	59.96	1.40	98.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.22	-59.96	-90.21	59.96	1.72	64.62	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.22	-59.96	-90.21	59.96	2.28	39.98	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.22	-59.96	-90.21	59.96	2.88	28.43	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.22	-59.96	-90.21	59.96	3.50	21.96	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.22	-59.96	-90.21	59.96	4.12	17.85	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.22	-59.96	-90.21	59.96	4.74	15.03	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.22	-59.96	-90.21	59.96	5.36	12.97	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.22	-59.96	-90.21	59.96	5.99	11.41	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.22	-59.96	-90.21	59.96	6.61	10.18	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.22	-59.96	-90.21	59.96	7.24	9.19	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.22	-59.96	-90.21	59.96	7.78	8.47	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.22	-59.96	160.92	59.99	7.86	8.38	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.22	-59.96	161.57	62.07	8.58	7.88	PASS
1313.00†	1312.80	-2.56	7.49	1312.80	1312.80	-0.22	-59.96	163.06	67.49	9.52	7.65	PASS
1413.00†	1412.38	-5.53	16.16	1412.38	1412.38	-0.22	-59.96	165.02	76.30	10.42	7.85	PASS
1513.00†	1511.57	-9.62	28.12	1511.89	1511.89	-0.23	-59.94	167.08	88.56	11.29	8.37	PASS
1613.00†	1610.26	-14.83	43.34	1613.90	1613.87	-1.52	-58.10	168.48	102.38	12.20	8.91	PASS
1713.00†	1708.33	-21.14	61.82	1716.37	1716.16	-4.92	-53.28	169.06	116.50	13.24	9.30	PASS
1813.00†	1805.66	-28.57	83.52	1819.30	1818.63	-10.44	-45.41	169.06	130.85	14.15	9.68	PASS
1913.00†	1902.13	-37.09	108.42	1922.66	1921.13	-18.11	-34.49	168.65	145.42	15.13	10.04	PASS
2013.00†	1997.62	-46.69	136.49	2026.46	2023.50	-27.96	-20.49	167.95	160.20	16.10	10.36	PASS
2113.00†	2092.02	-57.36	167.70	2130.66	2125.58	-39.97	-3.39	167.01	175.22	17.06	10.67	PASS
2209.17	2181.66	-68.63	200.64	2227.94	2220.26	-52.83	14.90	166.07	190.36	17.93	11.01	PASS
2213.00†	2185.21	-69.10	202.01	2231.72	2223.93	-53.33	15.62	166.04	191.02	17.96	11.03	PASS
2313.00†	2277.81	-81.32	237.73	2330.22	2319.71	-66.53	34.40	165.36	208.13	18.71	11.52	PASS
2413.00†	2370.41	-93.54	273.46	2428.71	2415.50	-79.73	53.18	164.79	225.27	19.54	11.92	PASS
2513.00†	2463.01	-105.76	309.18	2527.21	2511.29	-92.93	71.96	164.30	242.43	20.36	12.30	PASS
2613.00†	2555.60	-117.97	344.91	2625.71	2607.07	-106.13	90.74	163.87	259.60	21.25	12.60	PASS
2713.00†	2648.20	-130.19	380.63	2724.21	2702.86	-119.33	109.52	163.50	276.78	22.17	12.86	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 66 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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†	2740.80	-142.41	416.36	2822.70	2798.64	-132.53	128.30	163.17	293.97	23.13	13.08	PASS
2913.00†	2833.40	-154.63	452.08	2921.20	2894.43	-145.72	147.08	162.87	311.18	24.11	13.27	PASS
3013.00†	2926.00	-166.85	487.81	3019.70	2990.21	-158.92	165.86	162.61	328.39	25.12	13.42	PASS
3113.00†	3018.59	-179.07	523.53	3118.20	3086.00	-172.12	184.64	162.37	345.60	26.15	13.56	PASS
3213.00†	3111.19	-191.29	559.26	3216.69	3181.78	-185.32	203.42	162.16	362.82	27.20	13.67	PASS
3313.00†	3203.79	-203.51	594.98	3315.19	3277.57	-198.52	222.20	161.96	380.05	28.27	13.77	PASS
3413.00†	3296.39	-215.73	630.71	3413.69	3373.35	-211.72	240.98	161.78	397.27	29.35	13.85	PASS
3513.00†	3388.99	-227.95	666.43	3512.19	3469.14	-224.92	259.76	161.62	414.51	30.44	13.92	PASS
3613.00†	3481.59	-240.17	702.16	3610.68	3564.93	-238.12	278.54	161.47	431.74	31.55	13.98	PASS
3713.00†	3574.18	-252.39	737.88	3709.18	3660.71	-251.32	297.32	161.33	448.98	32.67	14.03	PASS
3813.00†	3666.78	-264.61	773.61	3807.68	3756.50	-264.51	316.10	161.20	466.22	33.80	14.07	PASS
3913.00†	3759.38	-276.83	809.33	3906.18	3852.28	-277.71	334.88	161.08	483.46	34.93	14.11	PASS
4013.00†	3851.98	-289.05	845.06	4004.67	3948.07	-290.91	353.66	160.97	500.70	36.08	14.14	PASS
4113.00†	3944.58	-301.27	880.78	4103.17	4043.85	-304.11	372.44	160.87	517.95	37.23	14.16	PASS
4213.00†	4037.17	-313.49	916.51	4201.67	4139.64	-317.31	391.22	160.77	535.20	38.39	14.18	PASS
4313.00†	4129.77	-325.71	952.23	4300.17	4235.42	-330.51	410.00	160.68	552.45	39.55	14.20	PASS
4413.00†	4222.37	-337.93	987.96	4398.66	4331.21	-343.71	428.78	160.60	569.70	40.72	14.22	PASS
4513.00†	4314.97	-350.15	1023.68	4497.16	4426.99	-356.91	447.56	160.51	586.95	41.90	14.23	PASS
4613.00†	4407.57	-362.37	1059.41	4595.66	4522.78	-370.10	466.35	160.44	604.20	43.08	14.24	PASS
4713.00†	4500.16	-374.59	1095.13	4694.16	4618.56	-383.30	485.13	160.37	621.45	44.26	14.25	PASS
4813.00†	4592.76	-386.81	1130.86	4792.65	4714.35	-396.50	503.91	160.30	638.71	45.45	14.26	PASS
4913.00†	4685.36	-399.03	1166.58	4891.15	4810.14	-409.70	522.69	160.24	655.96	46.65	14.26	PASS
5013.00†	4777.96	-411.25	1202.31	4989.65	4905.92	-422.90	541.47	160.18	673.22	47.84	14.27	PASS
5113.00†	4870.56	-423.47	1238.03	5088.15	5001.71	-436.10	560.25	160.12	690.47	49.04	14.27	PASS
5213.00†	4963.15	-435.69	1273.76	5186.64	5097.49	-449.30	579.03	160.06	707.73	50.24	14.27	PASS
5313.00†	5055.75	-447.91	1309.48	5285.14	5193.28	-462.50	597.81	160.01	724.99	51.45	14.27	PASS
5413.00†	5148.35	-460.13	1345.21	5383.64	5289.06	-475.70	616.59	159.96	742.25	52.65	14.28	PASS
5513.00†	5240.95	-472.35	1380.93	5482.14	5384.85	-488.89	635.37	159.91	759.51	53.86	14.28	PASS
5613.00†	5333.55	-484.56	1416.66	5580.63	5480.63	-502.09	654.15	159.87	776.76	55.07	14.27	PASS
5713.00†	5426.14	-496.78	1452.38	5679.13	5576.42	-515.29	672.93	159.82	794.02	56.29	14.27	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 67 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#10 ACKARD NORTH 2-35-3NBH (600'FSL & 2070'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NBH 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†	5518.74	-509.00	1488.11	5777.63	5672.20	-528.49	691.71	159.78	811.28	57.50	14.27	PASS
5913.00†	5611.34	-521.22	1523.83	5876.13	5767.99	-541.69	710.49	159.74	828.55	58.72	14.27	PASS
6013.00†	5703.94	-533.44	1559.56	5974.62	5863.78	-554.89	729.27	159.70	845.81	59.94	14.27	PASS
6113.00†	5796.54	-545.66	1595.28	6073.12	5959.56	-568.09	748.05	159.67	863.07	61.16	14.26	PASS
6213.00†	5889.13	-557.88	1631.01	6171.62	6055.35	-581.29	766.83	159.63	880.33	62.38	14.26	PASS
6313.00†	5981.73	-570.10	1666.73	6270.12	6151.13	-594.48	785.61	159.60	897.59	63.61	14.26	PASS
6413.00†	6074.33	-582.32	1702.46	6368.61	6246.92	-607.68	804.39	159.56	914.85	64.83	14.26	PASS
6513.00†	6166.93	-594.54	1738.18	6467.11	6342.70	-620.88	823.17	159.53	932.12	66.06	14.25	PASS
6613.00†	6259.53	-606.76	1773.91	6565.61	6438.49	-634.08	841.95	159.50	949.38	67.29	14.25	PASS
6713.00†	6352.13	-618.98	1809.63	6664.11	6534.27	-647.28	860.73	159.47	966.64	68.52	14.25	PASS
6813.00†	6444.72	-631.20	1845.36	6762.60	6630.06	-660.48	879.51	159.44	983.90	69.75	14.24	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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	1799.45	-0.13	-36.55	-2.88	-32.64
8.5in Open Hole	1800.00	17798.06	15998.06	1799.45	7591.00	-2.88	-32.64	2922.61	304.15





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 68 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17798.06	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NBH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NBH PWB Offset Wellpath: ACKARD NORTH 2-35-3NBH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 69 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 PR) Well: BOX ELDER FARMS 32-35#4 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	7975.75	1173.24	8.37	8061.59	25.40	327.65	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 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: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8312.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8312>	BOX ELDER FARMS 32-35#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: BOX ELDER FARMS 32-35#4 AWB Offset Wellpath: BOX ELDER FARMS 32-35#4 AWP

MD Reference: Rig on SLOT#03 EX BOX ELDER FARMS 32-35#4 (1980'FNL & 1980'FEL, SEC.35, 8312 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 70 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NCH Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13.00	13.00	0.00	0.00	13.00	13.00	-0.24	-74.97	-90.18	74.97	1.40	123.61	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.24	-74.97	-90.18	74.97	1.72	81.02	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.24	-74.97	-90.18	74.97	2.28	50.13	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.24	-74.97	-90.18	74.97	2.88	35.64	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.24	-74.97	-90.18	74.97	3.50	27.53	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.24	-74.97	-90.18	74.97	4.12	22.38	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.24	-74.97	-90.18	74.97	4.74	18.85	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.24	-74.97	-90.18	74.97	5.36	16.27	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.24	-74.97	-90.18	74.97	5.99	14.31	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.24	-74.97	-90.18	74.97	6.61	12.77	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.24	-74.97	-90.18	74.97	7.24	11.52	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.24	-74.97	-90.18	74.97	7.78	10.62	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.24	-74.97	160.94	75.00	7.86	10.51	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.24	-74.97	161.46	77.08	8.58	9.81	PASS
1313.00†	1312.80	-2.56	7.49	1312.80	1312.80	-0.24	-74.97	162.69	82.49	9.52	9.37	PASS
1413.00†	1412.38	-5.53	16.16	1412.38	1412.38	-0.24	-74.97	164.35	91.28	10.42	9.41	PASS
1513.00†	1511.57	-9.62	28.12	1511.57	1511.57	-0.24	-74.97	166.18	103.51	11.29	9.80	PASS
1613.00†	1610.26	-14.83	43.34	1610.60	1610.60	-0.25	-74.95	167.96	119.19	12.13	10.45	PASS
1713.00†	1708.33	-21.14	61.82	1712.53	1712.51	-1.86	-73.46	169.06	136.71	13.00	11.14	PASS
1813.00†	1805.66	-28.57	83.52	1814.92	1814.72	-6.14	-69.49	169.29	154.91	13.88	11.71	PASS
1913.00†	1902.13	-37.09	108.42	1917.72	1917.07	-13.14	-63.00	168.90	173.73	14.83	12.25	PASS
2013.00†	1997.62	-46.69	136.49	2020.89	2019.38	-22.86	-53.97	168.08	193.18	15.77	12.78	PASS
2113.00†	2092.02	-57.36	167.70	2124.39	2121.47	-35.32	-42.41	166.95	213.31	16.71	13.28	PASS
2209.17	2181.66	-68.63	200.64	2218.42	2213.89	-47.98	-30.67	165.95	234.45	17.54	13.89	PASS
2213.00†	2185.21	-69.10	202.01	2222.14	2217.55	-48.48	-30.20	165.92	235.35	17.57	13.91	PASS
2313.00†	2277.81	-81.32	237.73	2319.27	2313.03	-61.56	-18.06	165.24	258.96	18.32	14.67	PASS
2413.00†	2370.41	-93.54	273.46	2416.40	2408.51	-74.64	-5.93	164.68	282.60	19.11	15.32	PASS
2513.00†	2463.01	-105.76	309.18	2513.54	2503.99	-87.72	6.21	164.21	306.26	19.94	15.89	PASS
2613.00†	2555.60	-117.97	344.91	2610.67	2599.47	-100.80	18.35	163.80	329.94	20.82	16.37	PASS
2713.00†	2648.20	-130.19	380.63	2707.80	2694.95	-113.88	30.49	163.45	353.63	21.71	16.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 71 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#09 ACKARD NORTH 2-35-3NCH (600'FSL & 2055'FWL, SEC.02) Well: ACKARD NORTH 2-35-3NCH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2740.80	-142.41	416.36	2804.93	2790.43	-126.95	42.62	163.14	377.33	22.65	17.17	PASS
2913.00†	2833.40	-154.63	452.08	2902.06	2885.91	-140.03	54.76	162.87	401.04	23.60	17.49	PASS
3013.00†	2926.00	-166.85	487.81	2999.20	2981.39	-153.11	66.90	162.63	424.76	24.58	17.77	PASS
3113.00†	3018.59	-179.07	523.53	3096.33	3076.86	-166.19	79.04	162.41	448.49	25.57	18.01	PASS
3213.00†	3111.19	-191.29	559.26	3193.46	3172.34	-179.27	91.17	162.22	472.22	26.59	18.22	PASS
3313.00†	3203.79	-203.51	594.98	3290.59	3267.82	-192.35	103.31	162.04	495.95	27.62	18.40	PASS
3413.00†	3296.39	-215.73	630.71	3387.72	3363.30	-205.43	115.45	161.88	519.69	28.66	18.57	PASS
3513.00†	3388.99	-227.95	666.43	3484.85	3458.78	-218.51	127.58	161.73	543.43	29.71	18.71	PASS
3613.00†	3481.59	-240.17	702.16	3581.99	3554.26	-231.59	139.72	161.60	567.18	30.78	18.84	PASS
3713.00†	3574.18	-252.39	737.88	3679.12	3649.74	-244.67	151.86	161.48	590.92	31.85	18.95	PASS
3813.00†	3666.78	-264.61	773.61	3776.25	3745.22	-257.75	164.00	161.36	614.67	32.94	19.05	PASS
3913.00†	3759.38	-276.83	809.33	3873.38	3840.69	-270.83	176.13	161.26	638.43	34.03	19.14	PASS
4013.00†	3851.98	-289.05	845.06	3970.51	3936.17	-283.91	188.27	161.16	662.18	35.13	19.22	PASS
4113.00†	3944.58	-301.27	880.78	4067.64	4031.65	-296.98	200.41	161.07	685.94	36.23	19.29	PASS
4213.00†	4037.17	-313.49	916.51	4164.78	4127.13	-310.06	212.55	160.99	709.69	37.34	19.35	PASS
4313.00†	4129.77	-325.71	952.23	4261.91	4222.61	-323.14	224.68	160.91	733.45	38.46	19.41	PASS
4413.00†	4222.37	-337.93	987.96	4359.04	4318.09	-336.22	236.82	160.83	757.21	39.58	19.46	PASS
4513.00†	4314.97	-350.15	1023.68	4456.17	4413.57	-349.30	248.96	160.76	780.97	40.71	19.51	PASS
4613.00†	4407.57	-362.37	1059.41	4553.30	4509.05	-362.38	261.10	160.70	804.74	41.84	19.55	PASS
4713.00†	4500.16	-374.59	1095.13	4650.44	4604.52	-375.46	273.23	160.64	828.50	42.97	19.59	PASS
4813.00†	4592.76	-386.81	1130.86	4747.57	4700.00	-388.54	285.37	160.58	852.26	44.11	19.62	PASS
4913.00†	4685.36	-399.03	1166.58	4844.70	4795.48	-401.62	297.51	160.52	876.03	45.25	19.65	PASS
5013.00†	4777.96	-411.25	1202.31	4941.83	4890.96	-414.70	309.64	160.47	899.79	46.39	19.68	PASS
5113.00†	4870.56	-423.47	1238.03	5038.96	4986.44	-427.78	321.78	160.42	923.56	47.54	19.71	PASS
5213.00†	4963.15	-435.69	1273.76	5136.09	5081.92	-440.86	333.92	160.38	947.33	48.69	19.73	PASS
5313.00†	5055.75	-447.91	1309.48	5233.23	5177.40	-453.94	346.06	160.33	971.09	49.84	19.75	PASS
5413.00†	5148.35	-460.13	1345.21	5330.36	5272.88	-467.02	358.19	160.29	994.86	51.00	19.77	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 72 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

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

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH 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	1799.84	-0.14	-45.70	-1.70	-44.25
8.5in Open Hole	1800.00	17807.10	16007.10	1799.84	7663.00	-1.70	-44.25	2921.64	175.87

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17807.10	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-3NCH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-3NCH PWB Offset Wellpath: ACKARD NORTH 2-35-3NCH PWP (REV. A.0)

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



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 73 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360) Well: CHAMPLIN 117 AMOCO G#2 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	5342.28	1174.75	12.40	5469.92	50.38	110.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 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: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	CHAMPLIN 117 AMOCO G#2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#2 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#2 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G#2 (660'FSL & 1980'FEL, SEC.35, PA, 8360) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 74 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NBH 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	-0.26	-89.95	-90.16	89.95	1.40	148.58	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.26	-89.95	-90.16	89.95	1.72	97.38	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.26	-89.95	-90.16	89.95	2.28	60.26	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.26	-89.95	-90.16	89.95	2.88	42.85	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.26	-89.95	-90.16	89.95	3.50	33.09	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.26	-89.95	-90.16	89.95	4.12	26.90	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.26	-89.95	-90.16	89.95	4.74	22.65	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.26	-89.95	-90.16	89.95	5.36	19.55	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.26	-89.95	-90.16	89.95	5.99	17.20	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.26	-89.95	-90.16	89.95	6.61	15.34	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.26	-89.95	-90.16	89.95	7.24	13.85	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.26	-89.95	-90.16	89.95	7.78	12.77	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.26	-89.95	160.96	89.98	7.86	12.63	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.26	-89.95	161.39	92.06	8.58	11.73	PASS
1313.00†	1312.80	-2.56	7.49	1312.80	1312.80	-0.26	-89.95	162.43	97.47	9.52	11.09	PASS
1413.00†	1412.38	-5.53	16.16	1412.38	1412.38	-0.26	-89.95	163.87	106.24	10.42	10.97	PASS
1513.00†	1511.57	-9.62	28.12	1511.85	1511.85	-0.28	-89.94	165.50	118.43	11.28	11.22	PASS
1613.00†	1610.26	-14.83	43.34	1613.31	1613.28	-2.20	-88.84	166.42	132.82	12.15	11.64	PASS
1713.00†	1708.33	-21.14	61.82	1714.93	1714.73	-7.26	-85.97	166.31	148.57	13.06	12.06	PASS
1813.00†	1805.66	-28.57	83.52	1816.61	1815.97	-15.45	-81.31	165.46	165.67	13.87	12.54	PASS
1913.00†	1902.13	-37.09	108.42	1918.26	1916.78	-26.75	-74.88	164.09	184.18	14.76	13.06	PASS
2013.00†	1997.62	-46.69	136.49	2016.84	2014.20	-39.82	-67.45	162.66	204.73	15.61	13.70	PASS
2113.00†	2092.02	-57.36	167.70	2113.91	2110.12	-52.76	-60.09	161.71	228.56	16.49	14.44	PASS
2209.17	2181.66	-68.63	200.64	2206.49	2201.61	-65.10	-53.07	161.16	254.52	17.37	15.23	PASS
2213.00†	2185.21	-69.10	202.01	2210.16	2205.24	-65.59	-52.79	161.15	255.61	17.41	15.26	PASS
2313.00†	2277.81	-81.32	237.73	2306.00	2299.94	-78.37	-45.52	160.95	284.13	18.22	16.19	PASS
2413.00†	2370.41	-93.54	273.46	2401.85	2394.65	-91.15	-38.26	160.78	312.66	19.07	16.99	PASS
2513.00†	2463.01	-105.76	309.18	2497.69	2489.36	-103.93	-30.99	160.65	341.19	19.96	17.68	PASS
2613.00†	2555.60	-117.97	344.91	2593.53	2584.06	-116.71	-23.72	160.53	369.73	20.85	18.32	PASS
2713.00†	2648.20	-130.19	380.63	2689.37	2678.77	-129.49	-16.45	160.43	398.26	21.79	18.86	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 75 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#08 ACKARD NORTH 2-35-2NBH (600'FSL & 2040'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NBH Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Angle from Highside [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
2813.00†	2740.80	-142.41	416.36	2785.21	2773.48	-142.27	-9.18	160.35	426.79	22.74	19.34	PASS
2913.00†	2833.40	-154.63	452.08	2881.05	2868.18	-155.05	-1.92	160.27	455.33	23.71	19.76	PASS
3013.00†	2926.00	-166.85	487.81	2976.89	2962.89	-167.83	5.35	160.20	483.87	24.70	20.14	PASS
3113.00†	3018.59	-179.07	523.53	3072.73	3057.60	-180.61	12.62	160.14	512.40	25.71	20.47	PASS
3213.00†	3111.19	-191.29	559.26	3168.57	3152.30	-193.39	19.89	160.09	540.94	26.72	20.77	PASS
3313.00†	3203.79	-203.51	594.98	3264.41	3247.01	-206.17	27.16	160.04	569.48	27.75	21.03	PASS
3413.00†	3296.39	-215.73	630.71	3360.25	3341.71	-218.95	34.42	160.00	598.01	28.79	21.27	PASS
3513.00†	3388.99	-227.95	666.43	3456.09	3436.42	-231.73	41.69	159.96	626.55	29.83	21.49	PASS
3613.00†	3481.59	-240.17	702.16	3551.93	3531.13	-244.51	48.96	159.93	655.09	30.89	21.68	PASS
3713.00†	3574.18	-252.39	737.88	3647.77	3625.83	-257.29	56.23	159.89	683.63	31.95	21.86	PASS
3813.00†	3666.78	-264.61	773.61	3743.61	3720.54	-270.07	63.50	159.86	712.17	33.02	22.02	PASS
3913.00†	3759.38	-276.83	809.33	3839.46	3815.25	-282.85	70.76	159.83	740.70	34.09	22.17	PASS
4013.00†	3851.98	-289.05	845.06	3935.30	3909.95	-295.63	78.03	159.81	769.24	35.17	22.30	PASS
4113.00†	3944.58	-301.27	880.78	4031.14	4004.66	-308.41	85.30	159.79	797.78	36.26	22.42	PASS
4213.00†	4037.17	-313.49	916.51	4126.98	4099.37	-321.19	92.57	159.76	826.32	37.34	22.54	PASS
4313.00†	4129.77	-325.71	952.23	4222.82	4194.07	-333.97	99.84	159.74	854.86	38.44	22.64	PASS
4413.00†	4222.37	-337.93	987.96	4318.66	4288.78	-346.75	107.10	159.72	883.40	39.53	22.73	PASS
4513.00†	4314.97	-350.15	1023.68	4414.50	4383.48	-359.53	114.37	159.70	911.94	40.64	22.82	PASS
4613.00†	4407.57	-362.37	1059.41	4510.34	4478.19	-372.31	121.64	159.69	940.48	41.74	22.90	PASS
4713.00†	4500.16	-374.59	1095.13	4606.18	4572.90	-385.09	128.91	159.67	969.02	42.85	22.98	PASS
4813.00†	4592.76	-386.81	1130.86	4702.02	4667.60	-397.87	136.18	159.66	997.56	43.95	23.05	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)

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



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 76 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH 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	1799.45	-0.16	-54.83	-4.31	-52.47
8.5in Open Hole	1800.00	17719.12	15919.12	1799.45	N/A	-4.31	-52.47	N/A	N/A

SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NBH PWP (REV. A.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17719.12	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NBH

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NBH Offset Wellpath: ACKARD NORTH 2-35-2NBH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 77 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAAK #2-11 AWB Offset Wellpath: HSR-VAN SCHAAK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAAK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAAK #2-11 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	15.00	-1197.20	1213.36	134.62	1704.56	25.40	69.25	PASS
113.00†	113.00	0.00	0.00	85.00	113.00	-1197.20	1213.36	134.62	1704.56	52.00	33.28	PASS
213.00†	213.00	0.00	0.00	185.00	213.00	-1197.20	1213.36	134.62	1704.56	54.35	31.82	PASS
313.00†	313.00	0.00	0.00	285.00	313.00	-1197.20	1213.36	134.62	1704.56	56.70	30.48	PASS
413.00†	413.00	0.00	0.00	385.00	413.00	-1197.20	1213.36	134.62	1704.56	59.05	29.25	PASS
513.00†	513.00	0.00	0.00	485.00	513.00	-1197.20	1213.36	134.62	1704.56	61.41	28.11	PASS
613.00†	613.00	0.00	0.00	585.00	613.00	-1197.20	1213.36	134.62	1704.56	63.78	27.05	PASS
713.00†	713.00	0.00	0.00	685.00	713.00	-1197.20	1213.36	134.62	1704.56	66.14	26.07	PASS
813.00†	813.00	0.00	0.00	785.00	813.00	-1197.20	1213.36	134.62	1704.56	68.52	25.16	PASS
913.00†	913.00	0.00	0.00	885.00	913.00	-1197.20	1213.36	134.62	1704.56	70.89	24.31	PASS
1013.00†	1013.00	0.00	0.00	985.00	1013.00	-1197.20	1213.36	134.62	1704.56	73.27	23.51	PASS
1100.00	1100.00	0.00	0.00	1072.00	1100.00	-1197.20	1213.36	134.62	1704.56	75.35	22.86	PASS
1113.00†	1113.00	-0.01	0.03	1085.00	1113.00	-1197.20	1213.36	25.73	1704.54	75.66	22.76	PASS
1213.00†	1212.97	-0.72	2.11	1184.97	1212.97	-1197.20	1213.36	25.78	1702.56	78.05	22.03	PASS
1313.00†	1312.80	-2.56	7.49	1284.80	1312.80	-1197.20	1213.36	25.91	1697.44	80.49	21.29	PASS
1413.00†	1412.38	-5.53	16.16	1384.38	1412.38	-1197.20	1213.36	26.12	1689.19	82.93	20.56	PASS
1513.00†	1511.57	-9.62	28.12	1483.57	1511.57	-1197.20	1213.36	26.41	1677.84	85.36	19.83	PASS
1613.00†	1610.26	-14.83	43.34	1582.26	1610.26	-1197.20	1213.36	26.79	1663.42	87.79	19.11	PASS
1713.00†	1708.33	-21.14	61.82	1680.33	1708.33	-1197.20	1213.36	27.26	1645.95	90.20	18.40	PASS
1813.00†	1805.66	-28.57	83.52	1777.66	1805.66	-1197.20	1213.36	27.82	1625.50	92.52	17.70	PASS
1913.00†	1902.13	-37.09	108.42	1874.13	1902.13	-1197.20	1213.36	28.48	1602.11	94.93	17.00	PASS
2013.00†	1997.62	-46.69	136.49	1969.62	1997.62	-1197.20	1213.36	29.26	1575.86	97.32	16.30	PASS
2113.00†	2092.02	-57.36	167.70	2064.02	2092.02	-1197.20	1213.36	30.15	1546.81	99.71	15.62	PASS
2209.17	2181.66	-68.63	200.64	2153.66	2181.66	-1197.20	1213.36	31.13	1516.34	102.00	14.96	PASS
2213.00†	2185.21	-69.10	202.01	2157.21	2185.21	-1197.20	1213.36	31.16	1515.08	102.10	14.94	PASS
2313.00†	2277.81	-81.32	237.73	2249.81	2277.81	-1197.20	1213.36	31.90	1482.24	104.45	14.28	PASS
2413.00†	2370.41	-93.54	273.46	2342.41	2370.41	-1197.20	1213.36	32.67	1449.65	106.84	13.65	PASS
2513.00†	2463.01	-105.76	309.18	2435.01	2463.01	-1197.20	1213.36	33.47	1417.32	109.25	13.05	PASS
2613.00†	2555.60	-117.97	344.91	2527.60	2555.60	-1197.20	1213.36	34.32	1385.26	111.70	12.47	PASS
2713.00†	2648.20	-130.19	380.63	2620.20	2648.20	-1197.20	1213.36	35.19	1353.49	114.18	11.92	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 78 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAAK #2-11 AWB Offset Wellpath: HSR-VAN SCHAAK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAAK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAAK #2-11 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	2740.80	-142.41	416.36	2712.80	2740.80	-1197.20	1213.36	36.11	1322.04	116.69	11.39	PASS
2913.00†	2833.40	-154.63	452.08	2805.40	2833.40	-1197.20	1213.36	37.08	1290.93	119.25	10.88	PASS
3013.00†	2926.00	-166.85	487.81	2898.00	2926.00	-1197.20	1213.36	38.08	1260.18	121.84	10.40	PASS
3113.00†	3018.59	-179.07	523.53	2990.59	3018.59	-1197.20	1213.36	39.14	1229.82	124.48	9.93	PASS
3213.00†	3111.19	-191.29	559.26	3083.19	3111.19	-1197.20	1213.36	40.24	1199.88	127.16	9.48	PASS
3313.00†	3203.79	-203.51	594.98	3175.79	3203.79	-1197.20	1213.36	41.40	1170.39	129.89	9.05	PASS
3413.00†	3296.39	-215.73	630.71	3268.39	3296.39	-1197.20	1213.36	42.61	1141.39	132.68	8.64	PASS
3513.00†	3388.99	-227.95	666.43	3360.99	3388.99	-1197.20	1213.36	43.88	1112.91	135.51	8.25	PASS
3613.00†	3481.59	-240.17	702.16	3453.59	3481.59	-1197.20	1213.36	45.21	1085.00	138.41	7.87	PASS
3713.00†	3574.18	-252.39	737.88	3546.18	3574.18	-1197.20	1213.36	46.61	1057.71	141.36	7.52	PASS
3813.00†	3666.78	-264.61	773.61	3638.78	3666.78	-1197.20	1213.36	48.07	1031.07	144.37	7.17	PASS
3913.00†	3759.38	-276.83	809.33	3731.38	3759.38	-1197.20	1213.36	49.60	1005.15	147.45	6.85	PASS
4013.00†	3851.98	-289.05	845.06	3823.98	3851.98	-1197.20	1213.36	51.21	979.99	150.59	6.53	PASS
4113.00†	3944.58	-301.27	880.78	3916.58	3944.58	-1197.20	1213.36	52.89	955.67	153.79	6.24	PASS
4213.00†	4037.17	-313.49	916.51	4009.17	4037.17	-1197.20	1213.36	54.65	932.24	157.06	5.96	PASS
4313.00†	4129.77	-325.71	952.23	4101.77	4129.77	-1197.20	1213.36	56.49	909.77	160.40	5.69	PASS
4413.00†	4222.37	-337.93	987.96	4194.37	4222.37	-1197.20	1213.36	58.42	888.34	163.80	5.44	PASS
4513.00†	4314.97	-350.15	1023.68	4286.97	4314.97	-1197.20	1213.36	60.42	868.03	167.26	5.21	PASS
4613.00†	4407.57	-362.37	1059.41	4379.57	4407.57	-1197.20	1213.36	62.51	848.91	170.77	4.99	PASS
4713.00†	4500.16	-374.59	1095.13	4472.16	4500.16	-1197.20	1213.36	64.68	831.07	174.33	4.78	PASS
4813.00†	4592.76	-386.81	1130.86	4564.76	4592.76	-1197.20	1213.36	66.93	814.58	177.94	4.59	PASS
4913.00†	4685.36	-399.03	1166.58	4657.36	4685.36	-1197.20	1213.36	69.26	799.54	181.57	4.42	PASS
5013.00†	4777.96	-411.25	1202.31	4749.96	4777.96	-1197.20	1213.36	71.67	786.03	185.22	4.26	PASS
5113.00†	4870.56	-423.47	1238.03	4842.56	4870.56	-1197.20	1213.36	74.14	774.13	188.88	4.11	PASS
5213.00†	4963.15	-435.69	1273.76	4935.15	4963.15	-1197.20	1213.36	76.67	763.91	192.53	3.98	PASS
5313.00†	5055.75	-447.91	1309.48	5027.75	5055.75	-1197.20	1213.36	79.26	755.43	196.16	3.86	PASS
5413.00†	5148.35	-460.13	1345.21	5120.35	5148.35	-1197.20	1213.36	81.90	748.77	199.75	3.76	PASS
5513.00†	5240.95	-472.35	1380.93	5212.95	5240.95	-1197.20	1213.36	84.57	743.97	203.28	3.67	PASS
5613.00†	5333.55	-484.56	1416.66	5305.55	5333.55	-1197.20	1213.36	87.26	741.07	206.75	3.59	PASS
5713.00†	5426.14	-496.78	1452.38	5398.14	5426.14	-1197.20	1213.36	89.96	740.08	210.13	3.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 79 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, PR) Well: HSR-VAN SCHAACK #2-11 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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†	5518.74	-509.00	1488.11	5490.74	5518.74	-1197.20	1213.36	92.67	741.01	213.42	3.48	PASS
5913.00†	5611.34	-521.22	1523.83	5583.34	5611.34	-1197.20	1213.36	95.36	743.87	216.61	3.44	PASS
6013.00†	5703.94	-533.44	1559.56	5675.94	5703.94	-1197.20	1213.36	98.03	748.62	219.69	3.42	PASS
6113.00†	5796.54	-545.66	1595.28	5768.54	5796.54	-1197.20	1213.36	100.67	755.23	222.66	3.40	PASS
6213.00†	5889.13	-557.88	1631.01	5861.13	5889.13	-1197.20	1213.36	103.26	763.65	225.53	3.39	PASS
6313.00†	5981.73	-570.10	1666.73	5953.73	5981.73	-1197.20	1213.36	105.79	773.82	228.29	3.40	PASS
6413.00†	6074.33	-582.32	1702.46	6046.33	6074.33	-1197.20	1213.36	108.27	785.68	230.95	3.41	PASS
6513.00†	6166.93	-594.54	1738.18	6138.93	6166.93	-1197.20	1213.36	110.67	799.15	233.51	3.43	PASS
6613.00†	6259.53	-606.76	1773.91	6231.53	6259.53	-1197.20	1213.36	113.00	814.15	236.00	3.46	PASS
6713.00†	6352.13	-618.98	1809.63	6324.13	6352.13	-1197.20	1213.36	115.26	830.59	238.40	3.49	PASS
6813.00†	6444.72	-631.20	1845.36	6416.72	6444.72	-1197.20	1213.36	117.43	848.40	240.74	3.53	PASS
6913.00†	6537.32	-643.42	1881.08	6509.32	6537.32	-1197.20	1213.36	119.52	867.48	243.03	3.58	PASS
7013.00†	6629.92	-655.64	1916.81	6601.92	6629.92	-1197.20	1213.36	121.53	887.77	245.26	3.63	PASS
7113.00†	6722.52	-667.86	1952.53	6694.52	6722.52	-1197.20	1213.36	123.45	909.16	247.46	3.68	PASS
7213.00†	6815.12	-680.08	1988.26	6787.12	6815.12	-1197.20	1213.36	125.30	931.60	249.62	3.74	PASS
7313.00†	6907.71	-692.30	2023.98	6879.71	6907.71	-1197.20	1213.36	127.06	955.01	251.76	3.80	PASS
7397.45	6985.91	-702.62	2054.15	6957.91	6985.91	-1197.20	1213.36	128.49	975.47	253.55	3.86	PASS
7413.00†	7000.33	-704.31	2059.72	6972.33	7000.33	-1197.20	1213.36	132.79	979.42	253.88	3.87	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

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



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 80 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## WELLPATH COMPOSITION - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8384.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8384>	HSR-VAN SCHAACK #2-11 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-VAN SCHAACK #2-11 AWB Offset Wellpath: HSR-VAN SCHAACK #2-11 AWP

MD Reference: Rig on SLOT#01 EX HSR-VAN SCHAACK #2-11 (608'FNL & 1956'FEL, SEC.11,8384, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 81 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, PR) Well: MAUL #2 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	69.00	10830.10	1354.92	7.13	10914.67	25.40	443.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 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: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8280.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8280>	MAUL #2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: MAUL #2 AWB Offset Wellpath: MAUL #2 AWP

MD Reference: Rig on SLOT#02 EX MAUL #2 (859'FSL & 1800'FEL, SEC.26,8280, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 82 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NCH 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	-0.31	-104.93	-90.17	104.93	1.40	173.55	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.31	-104.93	-90.17	104.93	1.72	113.75	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.31	-104.93	-90.17	104.93	2.28	70.38	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.31	-104.93	-90.17	104.93	2.88	50.05	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.31	-104.93	-90.17	104.93	3.50	38.65	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.31	-104.93	-90.17	104.93	4.12	31.43	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.31	-104.93	-90.17	104.93	4.74	26.46	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.31	-104.93	-90.17	104.93	5.36	22.84	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.31	-104.93	-90.17	104.93	5.99	20.09	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.31	-104.93	-90.17	104.93	6.61	17.92	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.31	-104.93	-90.17	104.93	7.24	16.18	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.31	-104.93	-90.17	104.93	7.78	14.92	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.31	-104.93	160.95	104.96	7.86	14.75	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.31	-104.93	161.32	107.04	8.58	13.66	PASS
1313.00†	1312.80	-2.56	7.49	1312.80	1312.80	-0.31	-104.93	162.22	112.44	9.52	12.81	PASS
1413.00†	1412.38	-5.53	16.16	1412.44	1412.44	-0.34	-104.93	163.48	121.20	10.41	12.53	PASS
1513.00†	1511.57	-9.62	28.12	1512.28	1512.25	-2.50	-104.76	164.04	133.08	11.27	12.63	PASS
1613.00†	1610.26	-14.83	43.34	1611.79	1611.59	-8.11	-104.33	163.50	147.84	12.11	13.00	PASS
1713.00†	1708.33	-21.14	61.82	1710.76	1710.15	-17.10	-103.65	162.18	165.52	12.94	13.57	PASS
1813.00†	1805.66	-28.57	83.52	1808.80	1807.45	-29.10	-102.73	160.44	186.26	13.67	14.31	PASS
1913.00†	1902.13	-37.09	108.42	1905.80	1903.64	-41.61	-101.77	159.16	210.24	14.53	15.16	PASS
2013.00†	1997.62	-46.69	136.49	2002.01	1999.03	-54.01	-100.82	158.39	237.43	15.42	16.09	PASS
2113.00†	2092.02	-57.36	167.70	2097.30	2093.53	-66.30	-99.88	158.00	267.73	16.34	17.08	PASS
2209.17	2181.66	-68.63	200.64	2187.97	2183.43	-77.99	-98.98	157.88	299.77	17.24	18.09	PASS
2213.00†	2185.21	-69.10	202.01	2191.56	2186.99	-78.45	-98.94	157.89	301.10	17.28	18.12	PASS
2313.00†	2277.81	-81.32	237.73	2285.31	2279.96	-90.54	-98.02	158.11	335.88	18.11	19.26	PASS
2413.00†	2370.41	-93.54	273.46	2379.06	2372.92	-102.63	-97.09	158.29	370.67	18.97	20.26	PASS
2513.00†	2463.01	-105.76	309.18	2472.81	2465.88	-114.72	-96.17	158.44	405.46	19.86	21.14	PASS
2613.00†	2555.60	-117.97	344.91	2566.56	2558.84	-126.80	-95.24	158.57	440.25	20.76	21.92	PASS
2713.00†	2648.20	-130.19	380.63	2660.31	2651.80	-138.89	-94.31	158.68	475.04	21.68	22.61	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 83 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#07 ACKARD NORTH 2-35-2NCH (600'FSL & 2025'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NCH 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†	2740.80	-142.41	416.36	2754.06	2744.77	-150.98	-93.39	158.77	509.83	22.62	23.23	PASS
2913.00†	2833.40	-154.63	452.08	2847.80	2837.73	-163.07	-92.46	158.85	544.63	23.58	23.78	PASS
3013.00†	2926.00	-166.85	487.81	2941.55	2930.69	-175.15	-91.54	158.92	579.42	24.55	24.28	PASS
3113.00†	3018.59	-179.07	523.53	3035.30	3023.65	-187.24	-90.61	158.99	614.22	25.52	24.72	PASS
3213.00†	3111.19	-191.29	559.26	3129.05	3116.61	-199.33	-89.68	159.04	649.01	26.51	25.12	PASS
3313.00†	3203.79	-203.51	594.98	3222.80	3209.58	-211.42	-88.76	159.09	683.81	27.51	25.49	PASS
3413.00†	3296.39	-215.73	630.71	3316.55	3302.54	-223.50	-87.83	159.14	718.61	28.51	25.82	PASS
3513.00†	3388.99	-227.95	666.43	3410.30	3395.50	-235.59	-86.90	159.18	753.40	29.53	26.12	PASS
3613.00†	3481.59	-240.17	702.16	3504.05	3488.46	-247.68	-85.98	159.22	788.20	30.55	26.39	PASS
3713.00†	3574.18	-252.39	737.88	3597.80	3581.42	-259.77	-85.05	159.25	823.00	31.57	26.64	PASS
3813.00†	3666.78	-264.61	773.61	3691.55	3674.39	-271.85	-84.13	159.29	857.80	32.60	26.88	PASS
3913.00†	3759.38	-276.83	809.33	3785.30	3767.35	-283.94	-83.20	159.32	892.60	33.63	27.09	PASS
4013.00†	3851.98	-289.05	845.06	3879.04	3860.31	-296.03	-82.27	159.34	927.39	34.67	27.28	PASS
4113.00†	3944.58	-301.27	880.78	3972.79	3953.27	-308.12	-81.35	159.37	962.19	35.72	27.46	PASS
4213.00†	4037.17	-313.49	916.51	4066.54	4046.23	-320.20	-80.42	159.39	996.99	36.76	27.63	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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	1798.72	-0.19	-63.97	-8.62	-63.32
8.5in Open Hole	1800.00	17770.56	15970.56	1798.72	7678.00	-8.62	-63.32	2919.75	-53.74



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 84 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	20586.05	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NCH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NCH PWB Offset Wellpath: ACKARD NORTH 2-35-2NCH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 85 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#01 EX MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, PR) Well: MAUL #44-26 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	57.00	10621.23	2484.15	13.16	10907.95	25.40	443.35	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 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: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8289.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8289>	MAUL #44-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: MAUL #44-26 AWB Offset Wellpath: MAUL #44-26 AWP

MD Reference: Rig on SLOT#01 MAUL #44-26 (660'FSL & 652'FEL, SEC.26,8289, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 86 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NAH 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	-0.37	-119.97	-90.18	119.97	1.40	198.62	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.37	-119.97	-90.18	119.97	1.72	130.18	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.37	-119.97	-90.18	119.97	2.28	80.55	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.37	-119.97	-90.18	119.97	2.88	57.27	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.37	-119.97	-90.18	119.97	3.50	44.23	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.37	-119.97	-90.18	119.97	4.12	35.97	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.37	-119.97	-90.18	119.97	4.74	30.28	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.37	-119.97	-90.18	119.97	5.36	26.14	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.37	-119.97	-90.18	119.97	5.99	22.99	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.37	-119.97	-90.18	119.97	6.61	20.51	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.37	-119.97	-90.18	119.97	7.24	18.52	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.37	-119.97	-90.18	119.97	7.78	17.07	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.37	-119.97	160.95	120.00	7.86	16.88	PASS
1213.00†	1212.97	-0.72	2.11	1212.97	1212.97	-0.37	-119.97	161.27	122.08	8.58	15.59	PASS
1313.00†	1312.80	-2.56	7.49	1312.66	1312.66	-0.39	-119.98	162.04	127.49	9.52	14.53	PASS
1413.00†	1412.38	-5.53	16.16	1411.05	1411.02	-2.43	-120.57	162.30	136.77	10.41	14.16	PASS
1513.00†	1511.57	-9.62	28.12	1508.84	1508.66	-7.67	-122.09	161.63	150.25	11.28	14.27	PASS
1613.00†	1610.26	-14.83	43.34	1605.72	1605.14	-16.02	-124.50	160.31	167.93	12.13	14.76	PASS
1713.00†	1708.33	-21.14	61.82	1701.49	1700.18	-27.34	-127.78	158.61	189.88	12.98	15.53	PASS
1813.00†	1805.66	-28.57	83.52	1798.05	1795.82	-40.10	-131.48	157.16	215.53	13.79	16.48	PASS
1913.00†	1902.13	-37.09	108.42	1893.77	1890.63	-52.75	-135.14	156.28	244.34	14.62	17.52	PASS
2013.00†	1997.62	-46.69	136.49	1988.55	1984.51	-65.27	-138.77	155.81	276.20	15.52	18.60	PASS
2113.00†	2092.02	-57.36	167.70	2082.27	2077.33	-77.66	-142.35	155.63	311.07	16.44	19.73	PASS
2209.17	2181.66	-68.63	200.64	2171.28	2165.50	-89.42	-145.76	155.65	347.40	17.35	20.84	PASS
2213.00†	2185.21	-69.10	202.01	2174.81	2169.00	-89.89	-145.90	155.66	348.90	17.39	20.88	PASS
2313.00†	2277.81	-81.32	237.73	2266.77	2260.09	-102.04	-149.41	156.05	388.11	18.24	22.10	PASS
2413.00†	2370.41	-93.54	273.46	2358.74	2351.18	-114.20	-152.93	156.37	427.32	19.09	23.21	PASS
2513.00†	2463.01	-105.76	309.18	2450.70	2442.27	-126.35	-156.45	156.64	466.55	19.98	24.17	PASS
2613.00†	2555.60	-117.97	344.91	2542.67	2533.36	-138.50	-159.97	156.86	505.79	20.89	25.03	PASS
2713.00†	2648.20	-130.19	380.63	2634.64	2624.45	-150.66	-163.49	157.05	545.03	21.82	25.79	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 87 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#06 ACKARD NORTH 2-35-2NAH (600'FSL & 2010'FWL, SEC.02) Well: ACKARD NORTH 2-35-2NAH 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†	2740.80	-142.41	416.36	2726.60	2715.54	-162.81	-167.01	157.22	584.27	22.76	26.47	PASS
2913.00†	2833.40	-154.63	452.08	2818.57	2806.63	-174.97	-170.53	157.36	623.52	23.71	27.07	PASS
3013.00†	2926.00	-166.85	487.81	2910.53	2897.72	-187.12	-174.05	157.49	662.77	24.68	27.62	PASS
3113.00†	3018.59	-179.07	523.53	3002.50	2988.81	-199.27	-177.57	157.60	702.03	25.66	28.11	PASS
3213.00†	3111.19	-191.29	559.26	3094.46	3079.90	-211.43	-181.09	157.70	741.28	26.65	28.55	PASS
3313.00†	3203.79	-203.51	594.98	3186.43	3170.99	-223.58	-184.61	157.80	780.54	27.65	28.95	PASS
3413.00†	3296.39	-215.73	630.71	3278.39	3262.08	-235.73	-188.13	157.88	819.80	28.65	29.31	PASS
3513.00†	3388.99	-227.95	666.43	3370.36	3353.17	-247.89	-191.65	157.95	859.06	29.66	29.64	PASS
3613.00†	3481.59	-240.17	702.16	3462.32	3444.26	-260.04	-195.17	158.02	898.32	30.68	29.95	PASS
3713.00†	3574.18	-252.39	737.88	3554.29	3535.36	-272.19	-198.69	158.08	937.58	31.70	30.23	PASS
3813.00†	3666.78	-264.61	773.61	3646.25	3626.45	-284.35	-202.21	158.14	976.85	32.73	30.48	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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	1797.75	-0.22	-73.13	-12.41	-76.66
8.5in Open Hole	1800.00	17752.02	15952.02	1797.75	N/A	-12.41	-76.66	N/A	N/A



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 88 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17552.02	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2NAH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2NAH PWB Offset Wellpath: ACKARD NORTH 2-35-2NAH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 89 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02) Well: ACKARD NORTH 2-35-2CDH 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	-0.42	-134.95	-90.18	134.95	1.40	223.59	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.42	-134.95	-90.18	134.95	1.72	146.36	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.42	-134.95	-90.18	134.95	2.28	90.54	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.42	-134.95	-90.18	134.95	2.89	64.40	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.42	-134.95	-90.18	134.95	3.50	49.74	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.42	-134.95	-90.18	134.95	4.12	40.45	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.42	-134.95	-90.18	134.95	4.74	34.06	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.42	-134.95	-90.18	134.95	5.36	29.40	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.42	-134.95	-90.18	134.95	5.99	25.86	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.42	-134.95	-90.18	134.95	6.61	23.08	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.42	-134.95	-90.18	134.95	7.24	20.83	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.42	-134.95	-90.18	134.95	7.79	19.21	PASS
1113.00†	1113.00	-0.01	0.03	1113.00	1113.00	-0.42	-134.95	160.94	134.98	7.87	18.99	PASS
1213.00†	1212.97	-0.72	2.11	1212.75	1212.75	-0.45	-134.96	161.22	137.07	8.58	17.52	PASS
1313.00†	1312.80	-2.56	7.49	1310.78	1310.75	-2.41	-135.75	161.11	143.25	9.52	16.33	PASS
1413.00†	1412.38	-5.53	16.16	1408.27	1408.08	-7.45	-137.76	160.24	154.00	10.45	15.88	PASS
1513.00†	1511.57	-9.62	28.12	1504.86	1504.28	-15.47	-140.97	158.81	169.35	11.35	15.98	PASS
1613.00†	1610.26	-14.83	43.34	1600.94	1599.65	-26.31	-145.31	157.08	189.30	12.22	16.52	PASS
1713.00†	1708.33	-21.14	61.82	1698.04	1695.93	-38.06	-150.01	155.77	212.87	13.08	17.27	PASS
1813.00†	1805.66	-28.57	83.52	1794.39	1791.45	-49.72	-154.68	155.01	239.56	13.88	18.20	PASS
1913.00†	1902.13	-37.09	108.42	1889.86	1886.11	-61.27	-159.30	154.65	269.29	14.71	19.18	PASS
2013.00†	1997.62	-46.69	136.49	1984.34	1979.78	-72.70	-163.87	154.58	302.02	15.61	20.22	PASS
2113.00†	2092.02	-57.36	167.70	2077.72	2072.36	-84.00	-168.39	154.70	337.72	16.53	21.31	PASS
2209.17	2181.66	-68.63	200.64	2166.36	2160.25	-94.72	-172.69	154.94	374.85	17.45	22.35	PASS
2213.00†	2185.21	-69.10	202.01	2169.87	2163.73	-95.15	-172.86	154.96	376.38	17.49	22.39	PASS
2313.00†	2277.81	-81.32	237.73	2261.43	2254.51	-106.22	-177.29	155.56	416.42	18.29	23.64	PASS
2413.00†	2370.41	-93.54	273.46	2352.99	2345.28	-117.30	-181.72	156.05	456.49	19.14	24.73	PASS
2513.00†	2463.01	-105.76	309.18	2444.55	2436.06	-128.38	-186.15	156.46	496.58	20.01	25.69	PASS
2613.00†	2555.60	-117.97	344.91	2536.10	2526.84	-139.45	-190.58	156.81	536.69	20.90	26.54	PASS
2713.00†	2648.20	-130.19	380.63	2627.66	2617.61	-150.53	-195.02	157.10	576.82	21.80	27.31	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 90 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#05 ACKARD NORTH 2-35-2CDH (600'FSL & 1995'FWL, SEC.02) Well: ACKARD NORTH 2-35-2CDH 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†	2740.80	-142.41	416.36	2719.22	2708.39	-161.61	-199.45	157.37	616.96	22.72	28.00	PASS
2913.00†	2833.40	-154.63	452.08	2810.77	2799.17	-172.69	-203.88	157.60	657.10	23.65	28.61	PASS
3013.00†	2926.00	-166.85	487.81	2902.33	2889.94	-183.76	-208.31	157.80	697.26	24.59	29.17	PASS
3113.00†	3018.59	-179.07	523.53	2993.89	2980.72	-194.84	-212.75	157.98	737.42	25.54	29.67	PASS
3213.00†	3111.19	-191.29	559.26	3085.45	3071.50	-205.92	-217.18	158.14	777.59	26.49	30.13	PASS
3313.00†	3203.79	-203.51	594.98	3177.00	3162.27	-216.99	-221.61	158.29	817.76	27.46	30.55	PASS
3413.00†	3296.39	-215.73	630.71	3268.56	3253.05	-228.07	-226.04	158.42	857.93	28.43	30.93	PASS
3513.00†	3388.99	-227.95	666.43	3360.12	3343.83	-239.15	-230.48	158.54	898.11	29.40	31.27	PASS
3613.00†	3481.59	-240.17	702.16	3451.68	3434.61	-250.23	-234.91	158.65	938.30	30.38	31.59	PASS
3713.00†	3574.18	-252.39	737.88	3543.23	3525.38	-261.30	-239.34	158.75	978.48	31.37	31.89	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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	1797.01	-0.26	-82.27	-15.49	-88.36
8.5in Open Hole	1800.00	17937.78	16137.78	1797.01	7843.00	-15.49	-88.36	2918.66	-186.61

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	19125.24	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-2CDH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 91 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-2CDH PWB Offset Wellpath: ACKARD NORTH 2-35-2CDH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 92 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

Facility: SEC.01-T02S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410) Well: CHAMPLIN 117 AMOCO C#4 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	39.00	13.00	2694.48	3784.06	54.55	4645.36	50.92	92.67	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 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: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8410.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8410>	CHAMPLIN 117 AMOCO C#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO C#4 AWB Offset Wellpath: CHAMPLIN 117 AMOCO C#4 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLINE 117 AMOCO C#4 (1980'FNL & 660'FWL, SEC.01, PR, 8410) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 93 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,PR) Well: CHAMPLIN 117 AMOCO G#6 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	65.00	9284.02	-139.07	-0.86	9285.21	25.40	377.39	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 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: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8308.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8308>	CHAMPLIN 117 AMOCO G#6 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#6 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#6 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AOMOCO G #6 (660'FNL & 1980'FWL, SEC.35,8308,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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 94 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#03 EX LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, PR) Well: LEECH #24-26 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	64.00	10591.46	-140.67	-0.76	10592.52	25.40	430.53	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 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: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8296.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8296>	LEECH #24-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: LEECH #24-26 AWB Offset Wellpath: LEECH #24-26 AWP

MD Reference: Rig on SLOT#03 ES LEECH #24-26 (659'FSL & 2026'FWL, SEC.26,8296, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 95 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NBH 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	-0.44	-149.96	-90.17	149.96	1.40	248.60	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.44	-149.96	-90.17	149.96	1.72	162.94	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.44	-149.96	-90.17	149.96	2.28	100.82	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.44	-149.96	-90.17	149.96	2.88	71.69	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.44	-149.96	-90.17	149.96	3.50	55.36	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.44	-149.96	-90.17	149.96	4.12	45.02	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.44	-149.96	-90.17	149.96	4.74	37.90	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.44	-149.96	-90.17	149.96	5.36	32.72	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.44	-149.96	-90.17	149.96	5.99	28.77	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.44	-149.96	-90.17	149.96	6.61	25.67	PASS
1013.00†	1013.00	0.00	0.00	1013.00	1013.00	-0.44	-149.96	-90.17	149.96	7.24	23.18	PASS
1100.00	1100.00	0.00	0.00	1100.00	1100.00	-0.44	-149.96	-90.17	149.96	7.78	21.37	PASS
1113.00†	1113.00	-0.01	0.03	1112.56	1112.56	-0.46	-149.98	160.95	150.01	7.86	21.14	PASS
1213.00†	1212.97	-0.72	2.11	1209.07	1209.04	-1.99	-151.35	160.61	153.51	8.61	19.56	PASS
1313.00†	1312.80	-2.56	7.49	1305.05	1304.87	-5.91	-154.85	159.81	162.57	9.69	18.20	PASS
1413.00†	1412.38	-5.53	16.16	1400.04	1399.50	-12.15	-160.42	158.69	177.17	10.72	17.79	PASS
1513.00†	1511.57	-9.62	28.12	1493.62	1492.38	-20.58	-167.95	157.40	197.31	11.66	18.09	PASS
1613.00†	1610.26	-14.83	43.34	1585.72	1583.40	-31.07	-177.32	156.06	222.88	12.58	18.86	PASS
1713.00†	1708.33	-21.14	61.82	1681.16	1677.50	-42.93	-187.90	154.99	252.56	13.41	19.96	PASS
1813.00†	1805.66	-28.57	83.52	1775.64	1770.67	-54.67	-198.38	154.38	285.26	14.21	21.14	PASS
1913.00†	1902.13	-37.09	108.42	1869.06	1862.78	-66.27	-208.74	154.08	320.92	14.99	22.42	PASS
2013.00†	1997.62	-46.69	136.49	1961.30	1953.73	-77.73	-218.97	154.00	359.51	15.86	23.67	PASS
2113.00†	2092.02	-57.36	167.70	2052.24	2043.41	-89.02	-229.06	154.07	400.98	16.79	24.89	PASS
2209.17	2181.66	-68.63	200.64	2138.38	2128.34	-99.72	-238.61	154.23	443.56	17.62	26.19	PASS
2213.00†	2185.21	-69.10	202.01	2141.79	2131.70	-100.14	-238.99	154.25	445.31	17.66	26.23	PASS
2313.00†	2277.81	-81.32	237.73	2230.65	2219.32	-111.18	-248.84	154.83	490.99	18.47	27.61	PASS
2413.00†	2370.41	-93.54	273.46	2319.51	2306.94	-122.22	-258.70	155.31	536.69	19.30	28.83	PASS
2513.00†	2463.01	-105.76	309.18	2408.37	2394.56	-133.26	-268.55	155.72	582.42	20.15	29.92	PASS
2613.00†	2555.60	-117.97	344.91	2497.23	2482.18	-144.29	-278.41	156.06	628.17	21.03	30.88	PASS
2713.00†	2648.20	-130.19	380.63	2586.09	2569.80	-155.33	-288.26	156.36	673.94	21.92	31.74	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH (REV. A.0)  
Closest Approach  
Page 96 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#04 ACKARD NORTH 2-35-1NBH (600'FSL & 1980'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NBH 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†	2740.80	-142.41	416.36	2674.95	2657.42	-166.37	-298.12	156.62	719.72	22.82	32.52	PASS
2913.00†	2833.40	-154.63	452.08	2763.81	2745.04	-177.41	-307.97	156.85	765.51	23.74	33.21	PASS
3013.00†	2926.00	-166.85	487.81	2852.68	2832.67	-188.44	-317.83	157.06	811.31	24.67	33.84	PASS
3113.00†	3018.59	-179.07	523.53	2941.54	2920.29	-199.48	-327.68	157.24	857.11	25.60	34.40	PASS
3213.00†	3111.19	-191.29	559.26	3030.40	3007.91	-210.52	-337.54	157.40	902.93	26.55	34.91	PASS
3313.00†	3203.79	-203.51	594.98	3119.26	3095.53	-221.56	-347.39	157.55	948.74	27.51	35.38	PASS
3413.00†	3296.39	-215.73	630.71	3208.12	3183.15	-232.59	-357.25	157.68	994.57	28.47	35.80	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH 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: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH 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	1794.69	-0.27	-91.42	-17.72	-107.00
8.5in Open Hole	1800.00	17742.92	15942.92	1794.69	7618.00	-17.72	-107.00	2917.60	-314.90

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWP (REV. A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17742.92	Custom BHI NaviTrak (Standard Rotating) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NBH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 97 of 114



REFERENCE WELLPATH IDENTIFICATION			
Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NBH PWB Offset Wellpath: ACKARD NORTH 2-35-1NBH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 98 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360) Well: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	21.00	6609.75	-136.79	-1.19	6611.17	25.40	268.69	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 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: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8360.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8360>	SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWB Offset Wellpath: SLOT#01 EX CHAMPLIN 117 AMOCO G#3 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G#3 (1980'FSL & 1980'FWL, SEC.35, PA,8360) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 99 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV.A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NCH 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	13.00	13.00	-0.49	-164.92	-90.17	164.92	1.40	273.53	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.49	-164.92	-90.17	164.92	1.72	178.23	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.49	-164.92	-90.17	164.92	2.29	110.18	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.49	-164.92	-90.17	164.92	2.89	78.43	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.49	-164.92	-90.17	164.92	3.51	60.62	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.49	-164.92	-90.17	164.92	4.13	49.33	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.49	-164.92	-90.17	164.92	4.75	41.56	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.49	-164.92	-90.17	164.92	5.38	35.89	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.49	-164.92	-90.17	164.92	6.00	31.57	PASS
913.00†	913.00	0.00	0.00	913.00	913.00	-0.49	-164.92	-90.17	164.92	6.63	28.18	PASS
1013.00†	1013.00	0.00	0.00	1012.42	1012.42	-0.51	-164.94	-90.18	164.94	7.25	25.46	PASS
1100.00	1100.00	0.00	0.00	1095.49	1095.47	-1.42	-166.21	-90.49	166.28	7.84	23.50	PASS
1113.00†	1113.00	-0.01	0.03	1107.89	1107.87	-1.68	-166.57	160.54	166.68	7.93	23.27	PASS
1213.00†	1212.97	-0.72	2.11	1203.02	1202.85	-4.69	-170.75	159.74	173.20	8.87	21.37	PASS
1313.00†	1312.80	-2.56	7.49	1297.28	1296.75	-9.50	-177.43	158.78	185.74	10.00	20.11	PASS
1413.00†	1412.38	-5.53	16.16	1390.21	1389.00	-15.99	-186.45	157.77	204.23	11.03	19.88	PASS
1513.00†	1511.57	-9.62	28.12	1481.32	1479.06	-24.06	-197.66	156.78	228.56	12.02	20.30	PASS
1613.00†	1610.26	-14.83	43.34	1570.20	1566.45	-33.53	-210.82	155.85	258.59	12.97	21.19	PASS
1713.00†	1708.33	-21.14	61.82	1661.73	1656.02	-44.52	-226.10	155.04	293.56	13.77	22.57	PASS
1813.00†	1805.66	-28.57	83.52	1754.20	1746.49	-55.70	-241.63	154.55	331.60	14.52	24.03	PASS
1913.00†	1902.13	-37.09	108.42	1845.43	1835.74	-66.73	-256.95	154.31	372.54	15.29	25.49	PASS
2013.00†	1997.62	-46.69	136.49	1935.30	1923.67	-77.59	-272.05	154.23	416.33	16.16	26.89	PASS
2113.00†	2092.02	-57.36	167.70	2023.71	2010.16	-88.28	-286.89	154.26	462.94	16.97	28.42	PASS
2209.17	2181.66	-68.63	200.64	2107.24	2091.88	-98.37	-300.92	154.35	510.40	17.81	29.80	PASS
2213.00†	2185.21	-69.10	202.01	2110.54	2095.11	-98.77	-301.48	154.37	512.34	17.85	29.85	PASS
2313.00†	2277.81	-81.32	237.73	2196.61	2179.32	-109.18	-315.93	154.94	563.05	18.62	31.39	PASS
2413.00†	2370.41	-93.54	273.46	2282.68	2263.52	-119.58	-330.39	155.41	613.79	19.43	32.75	PASS
2513.00†	2463.01	-105.76	309.18	2368.75	2347.73	-129.99	-344.85	155.81	664.55	20.25	33.97	PASS
2613.00†	2555.60	-117.97	344.91	2454.82	2431.94	-140.39	-359.30	156.15	715.34	21.09	35.06	PASS
2713.00†	2648.20	-130.19	380.63	2540.89	2516.15	-150.79	-373.76	156.45	766.14	21.95	36.03	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 100 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#03 ACKARD NORTH 2-35-1NCH (600'FSL & 1965'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NCH 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†	2740.80	-142.41	416.36	2626.96	2600.35	-161.20	-388.22	156.71	816.96	22.83	36.90	PASS
2913.00†	2833.40	-154.63	452.08	2713.03	2684.56	-171.60	-402.67	156.94	867.78	23.72	37.68	PASS
3013.00†	2926.00	-166.85	487.81	2799.10	2768.77	-182.01	-417.13	157.15	918.62	24.62	38.39	PASS
3113.00†	3018.59	-179.07	523.53	2885.17	2852.98	-192.41	-431.59	157.33	969.46	25.53	39.03	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV-A.0)

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

## HOLE & CASING SECTIONS - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH 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	13.00	1800.00	1787.00	13.00	1791.29	-0.30	-100.53	-18.82	-126.26
8.5in Open Hole	1800.00	17864.18	16064.18	1791.29	7690.00	-18.82	-126.26	2916.50	-443.17

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-1NCH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17864.18	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NCH PWB



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 101 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NCH PWB Offset Wellpath: ACKARD NORTH 2-35-1NCH 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	13.00ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 102 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NAH 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	13.00	13.00	-0.47	-179.93	-90.15	179.93	1.40	298.55	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.47	-179.93	-90.15	179.93	1.72	194.40	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.47	-179.93	-90.15	179.93	2.29	120.17	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.47	-179.93	-90.15	179.93	2.90	85.55	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.47	-179.93	-90.15	179.93	3.51	66.13	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.47	-179.93	-90.15	179.93	4.13	53.82	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.47	-179.93	-90.15	179.93	4.75	45.34	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.47	-179.93	-90.15	179.93	5.38	39.15	PASS
813.00†	813.00	0.00	0.00	813.00	813.00	-0.47	-179.93	-90.15	179.93	6.00	34.45	PASS
913.00†	913.00	0.00	0.00	912.34	912.34	-0.49	-179.95	-90.16	179.95	6.62	30.77	PASS
1013.00†	1013.00	0.00	0.00	1007.18	1007.15	-1.51	-181.64	-90.48	181.75	7.32	27.77	PASS
1100.00	1100.00	0.00	0.00	1089.50	1089.37	-3.72	-185.29	-91.15	185.63	8.09	25.37	PASS
1113.00†	1113.00	-0.01	0.03	1101.78	1101.61	-4.15	-186.01	-159.84	186.43	8.21	25.07	PASS
1213.00†	1212.97	-0.72	2.11	1195.78	1195.26	-8.36	-192.99	-158.78	196.05	9.15	23.37	PASS
1313.00†	1312.80	-2.56	7.49	1288.65	1287.46	-14.09	-202.46	-157.72	211.79	10.30	22.22	PASS
1413.00†	1412.38	-5.53	16.16	1379.90	1377.66	-21.21	-214.25	-156.73	233.54	11.31	22.15	PASS
1513.00†	1511.57	-9.62	28.12	1469.07	1465.34	-29.61	-228.15	-155.83	261.17	12.31	22.62	PASS
1613.00†	1610.26	-14.83	43.34	1555.77	1550.06	-39.12	-243.89	-155.03	294.48	13.19	23.70	PASS
1713.00†	1708.33	-21.14	61.82	1644.78	1636.55	-50.00	-261.90	-154.34	332.84	14.01	25.14	PASS
1813.00†	1805.66	-28.57	83.52	1735.78	1724.91	-61.24	-280.50	-153.91	374.29	14.75	26.70	PASS
1913.00†	1902.13	-37.09	108.42	1825.42	1811.96	-72.31	-298.81	-153.67	418.58	15.53	28.20	PASS
2013.00†	1997.62	-46.69	136.49	1913.60	1897.59	-83.19	-316.83	-153.58	465.66	16.32	29.79	PASS
2113.00†	2092.02	-57.36	167.70	2000.21	1981.70	-93.89	-334.53	-153.57	515.50	17.16	31.29	PASS
2209.17	2181.66	-68.63	200.64	2081.92	2061.04	-103.97	-351.23	-153.61	566.00	17.99	32.71	PASS
2213.00†	2185.21	-69.10	202.01	2085.14	2064.17	-104.37	-351.89	-153.64	568.06	18.03	32.76	PASS
2313.00†	2277.81	-81.32	237.73	2169.27	2145.87	-114.76	-369.08	-154.21	621.89	18.80	34.34	PASS
2413.00†	2370.41	-93.54	273.46	2253.40	2227.57	-125.15	-386.27	-154.69	675.75	19.60	35.74	PASS
2513.00†	2463.01	-105.76	309.18	2337.53	2309.26	-135.53	-403.46	-155.09	729.64	20.42	36.98	PASS
2613.00†	2555.60	-117.97	344.91	2421.66	2390.96	-145.92	-420.65	-155.45	783.56	21.26	38.10	PASS
2713.00†	2648.20	-130.19	380.63	2505.79	2472.66	-156.31	-437.84	-155.75	837.49	22.12	39.09	PASS

C-C Clearance Distance Cutoff: 1000.00 ft





# Clearance Report

ACKARD NORTH 2-35-4NBH (REV. A.0)  
Closest Approach  
Page 103 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#02 ACKARD NORTH 2-35-1NAH (600'FSL & 1950'FWL, SEC.02) Well: ACKARD NORTH 2-35-1NAH 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†	2740.80	-142.41	416.36	2589.92	2554.35	-166.69	-455.03	156.02	891.44	22.99	39.98	PASS
2913.00†	2833.40	-154.63	452.08	2674.05	2636.05	-177.08	-472.22	156.26	945.40	23.88	40.77	PASS
3013.00†	2926.00	-166.85	487.81	2758.18	2717.74	-187.47	-489.41	156.48	999.38	24.78	41.49	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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	13.00	1800.00	1787.00	13.00	1787.28	-0.29	-109.68	-21.23	-144.34
8.5in Open Hole	1800.00	17683.47	15883.47	1787.28	7468.00	-21.23	-144.34	2915.72	-540.99

## SURVEY PROGRAM - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	17683.47	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1NAH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1NAH PWB Offset Wellpath: ACKARD NORTH 2-35-1NAH 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	13.00ft



# Clearance Report

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 104 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02) Well: ACKARD NORTH 2-35-1CDH 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	-0.53	-194.94	-90.16	194.94	1.40	323.56	PASS
113.00†	113.00	0.00	0.00	113.00	113.00	-0.53	-194.94	-90.16	194.94	1.72	210.61	PASS
213.00†	213.00	0.00	0.00	213.00	213.00	-0.53	-194.94	-90.16	194.94	2.29	130.18	PASS
313.00†	313.00	0.00	0.00	313.00	313.00	-0.53	-194.94	-90.16	194.94	2.90	92.68	PASS
413.00†	413.00	0.00	0.00	413.00	413.00	-0.53	-194.94	-90.16	194.94	3.51	71.65	PASS
513.00†	513.00	0.00	0.00	513.00	513.00	-0.53	-194.94	-90.16	194.94	4.13	58.31	PASS
613.00†	613.00	0.00	0.00	613.00	613.00	-0.53	-194.94	-90.16	194.94	4.75	49.13	PASS
713.00†	713.00	0.00	0.00	713.00	713.00	-0.53	-194.94	-90.16	194.94	5.38	42.43	PASS
813.00†	813.00	0.00	0.00	812.26	812.26	-0.54	-194.96	-90.16	194.96	6.00	37.36	PASS
913.00†	913.00	0.00	0.00	906.54	906.52	-1.46	-196.69	-90.43	196.80	6.71	33.20	PASS
1013.00†	1013.00	0.00	0.00	1000.59	1000.43	-3.83	-201.13	-91.09	201.56	7.63	29.42	PASS
1100.00	1100.00	0.00	0.00	1082.07	1081.62	-7.06	-207.18	-91.95	208.12	8.40	27.30	PASS
1113.00†	1113.00	-0.01	0.03	1094.21	1093.69	-7.64	-208.26	159.01	209.32	8.51	27.05	PASS
1213.00†	1212.97	-0.72	2.11	1186.98	1185.81	-12.82	-217.96	157.85	222.07	9.47	25.54	PASS
1313.00†	1312.80	-2.56	7.49	1278.37	1276.15	-19.29	-230.09	156.77	240.98	10.53	24.70	PASS
1413.00†	1412.38	-5.53	16.16	1367.88	1364.17	-26.94	-244.44	155.82	265.88	11.60	24.55	PASS
1513.00†	1511.57	-9.62	28.12	1455.10	1449.41	-35.64	-260.74	155.00	296.61	12.52	25.23	PASS
1613.00†	1610.26	-14.83	43.34	1543.99	1535.74	-45.59	-279.40	154.29	332.66	13.35	26.45	PASS
1713.00†	1708.33	-21.14	61.82	1635.93	1624.96	-56.05	-299.00	153.83	371.97	14.12	27.87	PASS
1813.00†	1805.66	-28.57	83.52	1726.59	1712.93	-66.37	-318.33	153.58	414.14	14.89	29.25	PASS
1913.00†	1902.13	-37.09	108.42	1815.86	1799.55	-76.52	-337.36	153.48	459.13	15.60	30.78	PASS
2013.00†	1997.62	-46.69	136.49	1903.63	1884.72	-86.51	-356.08	153.48	506.91	16.42	32.21	PASS
2113.00†	2092.02	-57.36	167.70	1989.79	1968.33	-96.31	-374.45	153.54	557.45	17.26	33.64	PASS
2209.17	2181.66	-68.63	200.64	2071.03	2047.16	-105.55	-391.77	153.63	608.61	18.08	34.99	PASS
2213.00†	2185.21	-69.10	202.01	2074.24	2050.27	-105.92	-392.46	153.66	610.70	18.12	35.03	PASS
2313.00†	2277.81	-81.32	237.73	2157.87	2131.42	-115.43	-410.29	154.27	665.22	18.88	36.56	PASS
2413.00†	2370.41	-93.54	273.46	2241.49	2212.57	-124.94	-428.12	154.80	719.80	19.67	37.92	PASS
2513.00†	2463.01	-105.76	309.18	2325.12	2293.72	-134.46	-445.95	155.25	774.41	20.48	39.13	PASS
2613.00†	2555.60	-117.97	344.91	2408.74	2374.86	-143.97	-463.78	155.65	829.04	21.31	40.21	PASS
2713.00†	2648.20	-130.19	380.63	2492.37	2456.01	-153.48	-481.61	155.99	883.71	22.16	41.17	PASS

C-C Clearance Distance Cutoff: 1000.00 ft



# Clearance Report

ACKARD NORTH 2-35-4NBH (REV. A.0)  
Closest Approach  
Page 105 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Facility: SEC.02-T03S-R66W Slot: SLOT#01 ACKARD NORTH 2-35-1CDH (600'FSL & 1935'FWL, SEC.02) Well: ACKARD NORTH 2-35-1CDH 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†	2740.80	-142.41	416.36	2576.00	2537.16	-163.00	-499.44	156.29	938.39	23.01	42.04	PASS
2913.00†	2833.40	-154.63	452.08	2659.62	2618.31	-172.51	-517.27	156.56	993.09	23.89	42.82	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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	1784.16	-0.32	-118.84	-22.94	-161.22
8.5in Open Hole	1800.00	18089.51	16289.51	1784.16	7855.00	-22.94	-161.22	2915.45	-576.03

## SURVEY PROGRAM - Offset Wellbore: Offset Wellpath: ACKARD NORTH 2-35-1CDH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	18089.51	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)		ACKARD NORTH 2-35-1CDH PWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: ACKARD NORTH 2-35-1CDH PWB Offset Wellpath: ACKARD NORTH 2-35-1CDH 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 106 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W   Slot: SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, SI)   Well: MARTIN #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	27.00	13.00	4041.94	-82.11	-1.16	4042.78	50.64	81.11	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	MARTIN #1 AWB

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

MD Reference: Rig on SLOT#01 EX MARTIN #1 (600'FNL & 2040'FWL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 107 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

Facility: SEC.26-T01S-R66W Slot: SLOT#04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, PR) Well: LEECH #14-26 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	79.00	10587.30	-1489.63	-8.01	10691.78	25.40	434.57	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 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: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8313.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8313>	LEECH #14-26 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: LEECH #14-26 AWB Offset Wellpath: LEECH #14-26 AWP

MD Reference: Rig on SLOT\$04 EX LEECH #14-26 (663'FSL & 673'FWL, SEC.26,8313, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 108 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#02 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,PR) Well: CHAMPLIN 117 AMOCO G#5 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	47.00	7903.10	-1498.90	-10.74	8044.05	25.40	326.94	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 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: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8340.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8340>	CHAMPLIN 117 AMOCO G#5 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 AMOCO G#5 AWB Offset Wellpath: CHAMPLIN 117 AMOCO G#5 AWP

MD Reference: Rig on SLOT#01 EX CHAMPLIN 117 AMOCO G #5 (1980'FNL & 660'FWL, SEC.35,8340,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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 109 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

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

Facility: SEC.02-T02S-R66W Slot: SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390) Well: OTTER#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	9.00	13.00	1348.92	-100.70	-4.27	1352.68	50.22	27.36	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8390.00	Drift Indicator - Inclination Only (Actual Survey)	ASUMED VERTICAL <8390>	OTTER#1 AWB

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

MD Reference: Rig on SLOT#17 EX OTTER#1 (1980'FSL & 1980'FWL, SEC.02, PR, 8390) (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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 110 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

Facility: SEC.35-T01S-R66W Slot: SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, PR) Well: CHAMPLIN 117 G#4 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	5296.31	-1444.31	-15.25	5489.77	25.40	223.11	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 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: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8350.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8350>	CHAMPLIN 117 G#4 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: CHAMPLIN 117 G#4 AWB Offset Wellpath: CHAMPLIN 117 G#4 AWP

MD Reference: Rig on SLOT#04 EX CHAMPLIN 117 G#4 (660'FSL & 660'FWL, SEC.35,8350, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 111 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

Facility: SEC.02-T02S-R66W Slot: SLOT#02 EX HSR ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, PR) Well: HSR ACKARD #5-2 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	4.00	13.00	2689.33	-1454.80	-28.41	3057.60	50.10	62.01	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 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: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8400.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8400>	HSR ACKARD #5-2 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR ACKARD #5-2 AWB Offset Wellpath: HSR ACKARD #5-2 AWP

MD Reference: Rig on SLOT#02 EX HSE ACKARD #5-2 (1980'FNL & 656'FWL, SEC.02,8400, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 112 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

Facility: SEC.11-T02S-R66W Slot: SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, PR) Well: HSR-VAN SCHAACK #4-11 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	47.00	-1207.32	-1431.11	-130.15	1872.66	25.40	76.10	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 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: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8374.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8374>	HSR-VAN SCHAACK #4-11 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-VAN SCHAACK #4-11 AWB Offset Wellpath: HSR-VAN SCHAACK #4-11 AWP

MD Reference: Rig on SLOT#01 EX HSR-VAN SCHAACK #4-11 (623'FNL & 696'FWL, SEC.11, 8374, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 113 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

Facility: SEC.03-T02S-R66W Slot: SLOT#01 EX HSR LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, PR) Well: HSR LAWSON #8-3 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	2427.18	-2778.17	-48.86	3689.19	25.40	149.93	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 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: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8598.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8598>	HSR LAWSON #8-3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR LAWSON #8-3 AWB Offset Wellpath: HSR LAWSON #8-3 AWP

MD Reference: Rig on SLOT#01 EX HSE LAWSON #8-3 (2080'FNL & 660'FEL, SEC.03,8598, 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

ACKARD NORTH 2-35-4NBH PWP (REV. A.0)  
Closest Approach  
Page 114 of 114



## REFERENCE WELLPATH IDENTIFICATION

Operator	PETROSHARE	Slot	SLOT#14 ACKARD NORTH 2-35-4NBH (600'FSL & 2130'FWL, SEC.02)
Area	COLORADO	Well	ACKARD NORTH 2-35-4NBH
Field	ADAMS COUNTY (NAD83/ GRID NORTH)	Wellbore	ACKARD NORTH 2-35-4NBH
Facility	SEC.02-T03S-R66W		

## CLEARANCE DATA - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

Facility: SEC.03-T02S-R66W Slot: SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR) Well: HSR-TR RANCH #16-3 Threshold Value=1.00 † = interpolated/extrapolated station												
Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	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	53.00	56.24	-2791.64	-88.85	2792.49	25.40	113.48	PASS

C-C Clearance Distance Cutoff: 1000.00 ft

## POSITIONAL UNCERTAINTY - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 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: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8362.00	Drift Indicator - Inclination Only (Actual Survey)	ASSUMED VERTICAL <8362>	HSR-TR RANCH #16-3 AWB

## OFFSET WELLPATH REFERENCE - Offset Wellbore: HSR-TR RANCH #16-3 AWB Offset Wellpath: HSR-TR RANCH #16-3 AWP

MD Reference: Rig on SLOT#02 EX HSR-TR RANCH #16-3 (660'FSL & 660'FEL, SEC.03,8362, PR) (RT)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	0.00ft