

# CONFLUENCE RESOURCES

Location: COLORADO Slot: SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)  
Field: WELD COUNTY (NAD83, TRUE NORTH) Well: WILLOW 22-4-4L  
Facility: SEC.22-T01N-R65W Wellbore: WILLOW 22-4-4L PWB

Plot reference wellpath is WILLOW 22-4-4L PWP (REV-B.0)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (20.5) (RKB)		North Reference: True north
Reference wellpath measured depths are referenced to RIG (20.5) (RKB)		Scale: True distance
RIG (20.5) (RKB) to Mean Sea Level: 5112.5 feet		Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)): 0 feet		Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum		Created by: robiae01 on 2019-12-10; Database: WA_DENVER

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.22-T01N-R65W			3236383.461	1254962.137	40°01'48.6120"N	104°39'21.0600"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)	0.00	249.24	3236632.676	1254964.511	40°01'48.6120"N	104°39'17.8560"W
RIG (20.5) (RKB) to Mud line (At Slot: SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22))					5112.5ft	
Mean Sea Level to Mud line (At Slot: SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22))					0ft	
RIG (20.5) (RKB) to Mean Sea Level					5112.5ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
20.50	1500.00	BH NavTrak (superseded model)	BH NavTrak (Rotating+Axial Corr)		WILLOW 22-4-4L PWB
1500.00	20190.96	BH AutoTrak Curve (superseded model)	BH AutoTrak Curve (Short)		WILLOW 22-4-4L PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
HARDLINES SEC.10,15,22-T01N-R65W 460'N&E/W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W
SEC.10-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W
SEC.15-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W
SEC.22-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W
WILLOW 22-4-4L BHL ON PLAT REV-1 (2174'FSL & 2420'FWL,SEC.10)	20190.96	7408.50	12578.94	1136.39	3237649.10	1267553.23	40°03'52.9200"N	104°39'3.2400"W
WILLOW 22-4-4L LP ON PLAT REV-1 (470'FSL & 2420'FWL,SEC.22)	7892.42	7462.50	280.53	1122.95	3237752.86	1255255.72	40°01'51.3840"N	104°39'3.2400"W

## Hole and Casing Sections

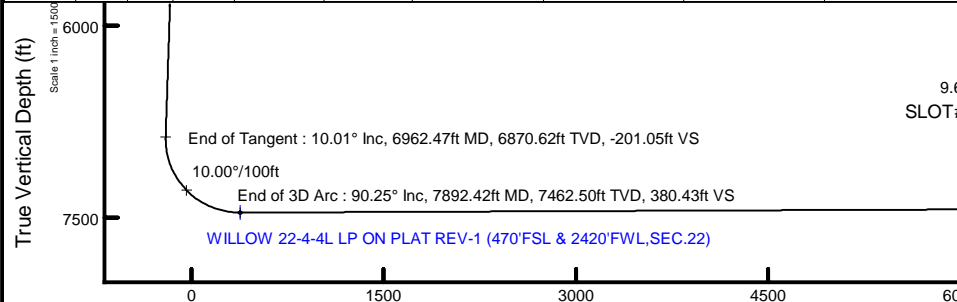
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	20.50	1500.00	1479.50	20.50	1491.37	0.00	0.00	-31.29	108.66	WILLOW 22-4-4L PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	20.50	0.000	106.065	20.50	0.00	0.00	0.00	0.00
End of Tangent	600.00	0.000	106.065	600.00	0.00	0.00	0.00	0.00
End of Build	1100.69	10.014	106.065	1098.14	-12.08	41.94	2.00	-8.25
End of Tangent	6962.47	10.014	106.065	6870.62	-294.14	1021.41	0.00	-201.05
End of 3D Arc	7892.42	90.252	0.063	7462.50	280.53	1122.95	10.00	380.43
End of Tangent	20190.96	90.252	0.063	7408.50	12578.94	1136.39	0.00	12630.17

## Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
20190.96	90.252	0.063	7408.50	12578.94	1136.39	3237649.10	1267553.23	40°03'52.9200"N	104°39'3.2400"W

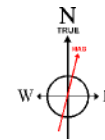


Scale 1 inch = 2500

Easting (ft)



WILLOW 22-4-4L BHL ON PLAT REV-1  
(2174'FSL & 2420'FWL,SEC.10)



BGGM (1900.0 to 2021.0) Dip: 66.33° Field: 51975.5 nT  
Magnetic North is 7.87 degrees East of True North (at 12/10/2019)

To correct azimuth from Magnetic to True add 7.87 degrees

WILLOW 22-4-4L LP ON PLAT REV-1  
(470'FSL & 2420'FWL,SEC.22)

9.625in Casing Surface : 1491.37ft TVD, 31.29ft S, 108.66ft E  
SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)

WILLOW 22-4-4L BHL ON PLAT REV-1 (2174'FSL & 2420'FWL,SEC.10)  
End of Tangent : 90.25° Inc, 20190.96ft MD, 7408.50ft TVD, 12630.17ft VS

Northing (ft)

Scale 1 inch = 1500



Planned Wellpath Report

WILLOW 22-4-4L PWP (REV-B.0)

Page 1 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	True	User	Robiale01
Scale	0.999964	Report Generated	12/10/2019 at 3:25:20 PM
Convergence at slot	0.55° East	Database	WA_DENVER

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	249.24	3236632.68	1254964.51	40°01'48.6120"N	104°39'17.8560"W
Facility Reference Pt			3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W
Field Reference Pt			3230456.90	1245096.09	40°00'11.6640"N	104°40'38.4240"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (20.5') (RKB) to Facility Vertical Datum	5112.50ft
Horizontal Reference Pt	Slot	RIG (20.5') (RKB) to Mean Sea Level	5112.50ft
Vertical Reference Pt	RIG (20.5') (RKB)	RIG (20.5') (RKB) to Mud Line at Slot (SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22))	5112.50ft
MD Reference Pt	RIG (20.5') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	5.16°



Planned Wellpath Report

WILLOW 22-4-4L PWP (REV-B.0)

Page 2 of 11



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Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 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	106.065	0.00	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
20.50	0.000	106.065	20.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	Tie On
120.50†	0.000	106.065	120.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
220.50†	0.000	106.065	220.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
320.50†	0.000	106.065	320.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
420.50†	0.000	106.065	420.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
520.50†	0.000	106.065	520.50	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	
600.00	0.000	106.065	600.00	0.00	0.00	0.00	40°01'48.6120"N	104°39'17.8560"W	0.00	End of Tangent
620.50†	0.410	106.065	620.50	-0.01	-0.02	0.07	40°01'48.6118"N	104°39'17.8551"W	2.00	
720.50†	2.410	106.065	720.46	-0.48	-0.70	2.43	40°01'48.6051"N	104°39'17.8247"W	2.00	
820.50†	4.410	106.065	820.28	-1.60	-2.35	8.15	40°01'48.5888"N	104°39'17.7512"W	2.00	
920.50†	6.410	106.065	919.83	-3.39	-4.96	17.21	40°01'48.5630"N	104°39'17.6348"W	2.00	
1020.50†	8.410	106.065	1018.99	-5.83	-8.52	29.60	40°01'48.5278"N	104°39'17.4755"W	2.00	
1100.69	10.014	106.065	1098.14	-8.25	-12.08	41.94	40°01'48.4927"N	104°39'17.3169"W	2.00	End of Build
1120.50†	10.014	106.065	1117.65	-8.91	-13.03	45.25	40°01'48.4832"N	104°39'17.2743"W	0.00	
1220.50†	10.014	106.065	1216.13	-12.20	-17.84	61.96	40°01'48.4357"N	104°39'17.0595"W	0.00	
1320.50†	10.014	106.065	1314.61	-15.48	-22.65	78.67	40°01'48.3881"N	104°39'16.8447"W	0.00	
1420.50†	10.014	106.065	1413.08	-18.77	-27.47	95.38	40°01'48.3406"N	104°39'16.6299"W	0.00	
1520.50†	10.014	106.065	1511.56	-22.06	-32.28	112.09	40°01'48.2930"N	104°39'16.4151"W	0.00	
1620.50†	10.014	106.065	1610.04	-25.35	-37.09	128.80	40°01'48.2455"N	104°39'16.2003"W	0.00	
1720.50†	10.014	106.065	1708.51	-28.64	-41.90	145.51	40°01'48.1979"N	104°39'15.9855"W	0.00	
1820.50†	10.014	106.065	1806.99	-31.93	-46.71	162.21	40°01'48.1504"N	104°39'15.7707"W	0.00	
1920.50†	10.014	106.065	1905.47	-35.22	-51.53	178.92	40°01'48.1028"N	104°39'15.5559"W	0.00	
2020.50†	10.014	106.065	2003.94	-38.51	-56.34	195.63	40°01'48.0552"N	104°39'15.3411"W	0.00	
2120.50†	10.014	106.065	2102.42	-41.80	-61.15	212.34	40°01'48.0077"N	104°39'15.1263"W	0.00	
2220.50†	10.014	106.065	2200.90	-45.09	-65.96	229.05	40°01'47.9601"N	104°39'14.9115"W	0.00	
2320.50†	10.014	106.065	2299.37	-48.37	-70.77	245.76	40°01'47.9126"N	104°39'14.6967"W	0.00	
2420.50†	10.014	106.065	2397.85	-51.66	-75.59	262.47	40°01'47.8650"N	104°39'14.4819"W	0.00	
2520.50†	10.014	106.065	2496.33	-54.95	-80.40	279.18	40°01'47.8175"N	104°39'14.2671"W	0.00	
2620.50†	10.014	106.065	2594.80	-58.24	-85.21	295.89	40°01'47.7699"N	104°39'14.0523"W	0.00	



Planned Wellpath Report  
WILLOW 22-4-4L PWP (REV-B.0)  
Page 3 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2720.50†	10.014	106.065	2693.28	-61.53	-90.02	312.60	40°01'47.7224"N	104°39'13.8375"W	0.00	
2820.50†	10.014	106.065	2791.76	-64.82	-94.83	329.31	40°01'47.6748"N	104°39'13.6226"W	0.00	
2920.50†	10.014	106.065	2890.23	-68.11	-99.64	346.02	40°01'47.6273"N	104°39'13.4078"W	0.00	
3020.50†	10.014	106.065	2988.71	-71.40	-104.46	362.73	40°01'47.5797"N	104°39'13.1930"W	0.00	
3120.50†	10.014	106.065	3087.18	-74.69	-109.27	379.44	40°01'47.5321"N	104°39'12.9782"W	0.00	
3220.50†	10.014	106.065	3185.66	-77.97	-114.08	396.15	40°01'47.4846"N	104°39'12.7634"W	0.00	
3320.50†	10.014	106.065	3284.14	-81.26	-118.89	412.86	40°01'47.4370"N	104°39'12.5486"W	0.00	
3420.50†	10.014	106.065	3382.61	-84.55	-123.70	429.57	40°01'47.3895"N	104°39'12.3338"W	0.00	
3520.50†	10.014	106.065	3481.09	-87.84	-128.52	446.28	40°01'47.3419"N	104°39'12.1190"W	0.00	
3620.50†	10.014	106.065	3579.57	-91.13	-133.33	462.98	40°01'47.2944"N	104°39'11.9042"W	0.00	
3720.50†	10.014	106.065	3678.04	-94.42	-138.14	479.69	40°01'47.2468"N	104°39'11.6894"W	0.00	
3820.50†	10.014	106.065	3776.52	-97.71	-142.95	496.40	40°01'47.1993"N	104°39'11.4746"W	0.00	
3920.50†	10.014	106.065	3875.00	-101.00	-147.76	513.11	40°01'47.1517"N	104°39'11.2598"W	0.00	
4020.50†	10.014	106.065	3973.47	-104.29	-152.58	529.82	40°01'47.1041"N	104°39'11.0450"W	0.00	
4120.50†	10.014	106.065	4071.95	-107.58	-157.39	546.53	40°01'47.0566"N	104°39'10.8302"W	0.00	
4220.50†	10.014	106.065	4170.43	-110.86	-162.20	563.24	40°01'47.0090"N	104°39'10.6154"W	0.00	
4320.50†	10.014	106.065	4268.90	-114.15	-167.01	579.95	40°01'46.9615"N	104°39'10.4006"W	0.00	
4420.50†	10.014	106.065	4367.38	-117.44	-171.82	596.66	40°01'46.9139"N	104°39'10.1858"W	0.00	
4520.50†	10.014	106.065	4465.86	-120.73	-176.64	613.37	40°01'46.8664"N	104°39'9.9710"W	0.00	
4620.50†	10.014	106.065	4564.33	-124.02	-181.45	630.08	40°01'46.8188"N	104°39'9.7562"W	0.00	
4720.50†	10.014	106.065	4662.81	-127.31	-186.26	646.79	40°01'46.7713"N	104°39'9.5414"W	0.00	
4820.50†	10.014	106.065	4761.29	-130.60	-191.07	663.50	40°01'46.7237"N	104°39'9.3266"W	0.00	
4920.50†	10.014	106.065	4859.76	-133.89	-195.88	680.21	40°01'46.6761"N	104°39'9.1118"W	0.00	
5020.50†	10.014	106.065	4958.24	-137.18	-200.70	696.92	40°01'46.6286"N	104°39'8.8970"W	0.00	
5120.50†	10.014	106.065	5056.72	-140.47	-205.51	713.63	40°01'46.5810"N	104°39'8.6822"W	0.00	
5220.50†	10.014	106.065	5155.19	-143.75	-210.32	730.34	40°01'46.5335"N	104°39'8.4674"W	0.00	
5320.50†	10.014	106.065	5253.67	-147.04	-215.13	747.05	40°01'46.4859"N	104°39'8.2526"W	0.00	
5420.50†	10.014	106.065	5352.15	-150.33	-219.94	763.76	40°01'46.4384"N	104°39'8.0378"W	0.00	
5520.50†	10.014	106.065	5450.62	-153.62	-224.75	780.46	40°01'46.3908"N	104°39'7.8230"W	0.00	
5620.50†	10.014	106.065	5549.10	-156.91	-229.57	797.17	40°01'46.3432"N	104°39'7.6082"W	0.00	



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Page 4 of 11



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Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5720.50†	10.014	106.065	5647.58	-160.20	-234.38	813.88	40°01'46.2957"N	104°39'7.3934"W	0.00	
5820.50†	10.014	106.065	5746.05	-163.49	-239.19	830.59	40°01'46.2481"N	104°39'7.1786"W	0.00	
5920.50†	10.014	106.065	5844.53	-166.78	-244.00	847.30	40°01'46.2006"N	104°39'6.9638"W	0.00	
6020.50†	10.014	106.065	5943.01	-170.07	-248.81	864.01	40°01'46.1530"N	104°39'6.7490"W	0.00	
6120.50†	10.014	106.065	6041.48	-173.36	-253.63	880.72	40°01'46.1054"N	104°39'6.5342"W	0.00	
6220.50†	10.014	106.065	6139.96	-176.64	-258.44	897.43	40°01'46.0579"N	104°39'6.3194"W	0.00	
6320.50†	10.014	106.065	6238.44	-179.93	-263.25	914.14	40°01'46.0103"N	104°39'6.1046"W	0.00	
6420.50†	10.014	106.065	6336.91	-183.22	-268.06	930.85	40°01'45.9628"N	104°39'5.8898"W	0.00	
6520.50†	10.014	106.065	6435.39	-186.51	-272.87	947.56	40°01'45.9152"N	104°39'5.6750"W	0.00	
6620.50†	10.014	106.065	6533.87	-189.80	-277.69	964.27	40°01'45.8676"N	104°39'5.4602"W	0.00	
6720.50†	10.014	106.065	6632.34	-193.09	-282.50	980.98	40°01'45.8201"N	104°39'5.2454"W	0.00	
6820.50†	10.014	106.065	6730.82	-196.38	-287.31	997.69	40°01'45.7725"N	104°39'5.0306"W	0.00	
6920.50†	10.014	106.065	6829.30	-199.67	-292.12	1014.40	40°01'45.7250"N	104°39'4.8158"W	0.00	
6962.47	10.014	106.065	6870.62	-201.05	-294.14	1021.41	40°01'45.7050"N	104°39'4.7256"W	0.00	End of Tangent
7020.50†	10.106	72.377	6927.81	-200.03	-294.00	1031.12	40°01'45.7064"N	104°39'4.6008"W	10.00	
7120.50†	16.182	35.911	7025.30	-184.62	-280.02	1047.70	40°01'45.8446"N	104°39'4.3877"W	10.00	
7220.50†	24.893	21.566	7118.92	-152.37	-249.08	1063.64	40°01'46.1503"N	104°39'4.1827"W	10.00	
7320.50†	34.285	14.525	7205.80	-104.27	-202.12	1078.48	40°01'46.6143"N	104°39'3.9919"W	10.00	
7420.50†	43.921	10.259	7283.33	-41.77	-140.57	1091.76	40°01'47.2226"N	104°39'3.8212"W	10.00	
7520.50†	53.668	7.278	7349.13	33.22	-66.30	1103.06	40°01'47.9566"N	104°39'3.6758"W	10.00	
7620.50†	63.473	4.967	7401.22	118.42	18.44	1112.06	40°01'48.7940"N	104°39'3.5601"W	10.00	
7720.50†	73.309	3.023	7438.00	211.25	111.07	1118.48	40°01'49.7094"N	104°39'3.4776"W	10.00	
7820.50†	83.161	1.272	7458.37	308.89	208.78	1122.12	40°01'50.6749"N	104°39'3.4308"W	10.00	
7892.42	90.252	0.063	7462.50†	380.43	280.53	1122.95	40°01'51.3840"N	104°39'3.4200"W	10.00	End of 3D Arc
7920.50†	90.252	0.063	7462.38	408.39	308.60	1122.98	40°01'51.6615"N	104°39'3.4196"W	0.00	
8020.50†	90.252	0.063	7461.94	508.00	408.60	1123.09	40°01'52.6497"N	104°39'3.4181"W	0.00	
8120.50†	90.252	0.063	7461.50	607.60	508.60	1123.20	40°01'53.6379"N	104°39'3.4167"W	0.00	
8220.50†	90.252	0.063	7461.06	707.20	608.60	1123.31	40°01'54.6261"N	104°39'3.4152"W	0.00	
8320.50†	90.252	0.063	7460.62	806.80	708.60	1123.42	40°01'55.6143"N	104°39'3.4137"W	0.00	
8420.50†	90.252	0.063	7460.18	906.41	808.60	1123.53	40°01'56.6025"N	104°39'3.4123"W	0.00	



Planned Wellpath Report  
WILLOW 22-4-4L PWP (REV-B.0)  
Page 5 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8520.50†	90.252	0.063	7459.74	1006.01	908.60	1123.63	40°01'57.5908"N	104°39'3.4108"W	0.00	
8620.50†	90.252	0.063	7459.30	1105.61	1008.60	1123.74	40°01'58.5790"N	104°39'3.4093"W	0.00	
8720.50†	90.252	0.063	7458.86	1205.22	1108.60	1123.85	40°01'59.5672"N	104°39'3.4079"W	0.00	
8820.50†	90.252	0.063	7458.43	1304.82	1208.60	1123.96	40°02'0.5554"N	104°39'3.4064"W	0.00	
8920.50†	90.252	0.063	7457.99	1404.42	1308.59	1124.07	40°02'1.5436"N	104°39'3.4050"W	0.00	
9020.50†	90.252	0.063	7457.55	1504.03	1408.59	1124.18	40°02'2.5318"N	104°39'3.4035"W	0.00	
9120.50†	90.252	0.063	7457.11	1603.63	1508.59	1124.29	40°02'3.5201"N	104°39'3.4020"W	0.00	
9220.50†	90.252	0.063	7456.67	1703.23	1608.59	1124.40	40°02'4.5083"N	104°39'3.4006"W	0.00	
9320.50†	90.252	0.063	7456.23	1802.84	1708.59	1124.51	40°02'5.4965"N	104°39'3.3991"W	0.00	
9420.50†	90.252	0.063	7455.79	1902.44	1808.59	1124.62	40°02'6.4847"N	104°39'3.3976"W	0.00	
9520.50†	90.252	0.063	7455.35	2002.04	1908.59	1124.73	40°02'7.4729"N	104°39'3.3962"W	0.00	
9620.50†	90.252	0.063	7454.91	2101.65	2008.59	1124.84	40°02'8.4611"N	104°39'3.3947"W	0.00	
9720.50†	90.252	0.063	7454.47	2201.25	2108.59	1124.95	40°02'9.4494"N	104°39'3.3933"W	0.00	
9820.50†	90.252	0.063	7454.03	2300.85	2208.59	1125.06	40°02'10.4376"N	104°39'3.3918"W	0.00	
9920.50†	90.252	0.063	7453.60	2400.46	2308.58	1125.16	40°02'11.4258"N	104°39'3.3903"W	0.00	
10020.50†	90.252	0.063	7453.16	2500.06	2408.58	1125.27	40°02'12.4140"N	104°39'3.3889"W	0.00	
10120.50†	90.252	0.063	7452.72	2599.66	2508.58	1125.38	40°02'13.4022"N	104°39'3.3874"W	0.00	
10220.50†	90.252	0.063	7452.28	2699.27	2608.58	1125.49	40°02'14.3904"N	104°39'3.3859"W	0.00	
10320.50†	90.252	0.063	7451.84	2798.87	2708.58	1125.60	40°02'15.3787"N	104°39'3.3845"W	0.00	
10420.50†	90.252	0.063	7451.40	2898.47	2808.58	1125.71	40°02'16.3669"N	104°39'3.3830"W	0.00	
10520.50†	90.252	0.063	7450.96	2998.08	2908.58	1125.82	40°02'17.3551"N	104°39'3.3816"W	0.00	
10620.50†	90.252	0.063	7450.52	3097.68	3008.58	1125.93	40°02'18.3433"N	104°39'3.3801"W	0.00	
10720.50†	90.252	0.063	7450.08	3197.28	3108.58	1126.04	40°02'19.3315"N	104°39'3.3786"W	0.00	
10820.50†	90.252	0.063	7449.64	3296.89	3208.58	1126.15	40°02'20.3197"N	104°39'3.3772"W	0.00	
10920.50†	90.252	0.063	7449.20	3396.49	3308.57	1126.26	40°02'21.3080"N	104°39'3.3757"W	0.00	
11020.50†	90.252	0.063	7448.77	3496.09	3408.57	1126.37	40°02'22.2962"N	104°39'3.3742"W	0.00	
11120.50†	90.252	0.063	7448.33	3595.70	3508.57	1126.48	40°02'23.2844"N	104°39'3.3728"W	0.00	
11220.50†	90.252	0.063	7447.89	3695.30	3608.57	1126.59	40°02'24.2726"N	104°39'3.3713"W	0.00	
11320.50†	90.252	0.063	7447.45	3794.90	3708.57	1126.69	40°02'25.2608"N	104°39'3.3698"W	0.00	
11420.50†	90.252	0.063	7447.01	3894.50	3808.57	1126.80	40°02'26.2490"N	104°39'3.3684"W	0.00	





Planned Wellpath Report  
WILLOW 22-4-4L PWP (REV-B.0)  
Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11520.50†	90.252	0.063	7446.57	3994.11	3908.57	1126.91	40°02'27.2372"N	104°39'3.3669"W	0.00	
11620.50†	90.252	0.063	7446.13	4093.71	4008.57	1127.02	40°02'28.2255"N	104°39'3.3655"W	0.00	
11720.50†	90.252	0.063	7445.69	4193.31	4108.57	1127.13	40°02'29.2137"N	104°39'3.3640"W	0.00	
11820.50†	90.252	0.063	7445.25	4292.92	4208.56	1127.24	40°02'30.2019"N	104°39'3.3625"W	0.00	
11920.50†	90.252	0.063	7444.81	4392.52	4308.56	1127.35	40°02'31.1901"N	104°39'3.3611"W	0.00	
12020.50†	90.252	0.063	7444.37	4492.12	4408.56	1127.46	40°02'32.1783"N	104°39'3.3596"W	0.00	
12120.50†	90.252	0.063	7443.94	4591.73	4508.56	1127.57	40°02'33.1665"N	104°39'3.3581"W	0.00	
12220.50†	90.252	0.063	7443.50	4691.33	4608.56	1127.68	40°02'34.1548"N	104°39'3.3567"W	0.00	
12320.50†	90.252	0.063	7443.06	4790.93	4708.56	1127.79	40°02'35.1430"N	104°39'3.3552"W	0.00	
12420.50†	90.252	0.063	7442.62	4890.54	4808.56	1127.90	40°02'36.1312"N	104°39'3.3537"W	0.00	
12520.50†	90.252	0.063	7442.18	4990.14	4908.56	1128.01	40°02'37.1194"N	104°39'3.3523"W	0.00	
12620.50†	90.252	0.063	7441.74	5089.74	5008.56	1128.12	40°02'38.1076"N	104°39'3.3508"W	0.00	
12720.50†	90.252	0.063	7441.30	5189.35	5108.56	1128.22	40°02'39.0958"N	104°39'3.3494"W	0.00	
12820.50†	90.252	0.063	7440.86	5288.95	5208.55	1128.33	40°02'40.0841"N	104°39'3.3479"W	0.00	
12920.50†	90.252	0.063	7440.42	5388.55	5308.55	1128.44	40°02'41.0723"N	104°39'3.3464"W	0.00	
13020.50†	90.252	0.063	7439.98	5488.16	5408.55	1128.55	40°02'42.0605"N	104°39'3.3450"W	0.00	
13120.50†	90.252	0.063	7439.54	5587.76	5508.55	1128.66	40°02'43.0487"N	104°39'3.3435"W	0.00	
13220.50†	90.252	0.063	7439.11	5687.36	5608.55	1128.77	40°02'44.0369"N	104°39'3.3420"W	0.00	
13320.50†	90.252	0.063	7438.67	5786.97	5708.55	1128.88	40°02'45.0251"N	104°39'3.3406"W	0.00	
13420.50†	90.252	0.063	7438.23	5886.57	5808.55	1128.99	40°02'46.0133"N	104°39'3.3391"W	0.00	
13520.50†	90.252	0.063	7437.79	5986.17	5908.55	1129.10	40°02'47.0016"N	104°39'3.3377"W	0.00	
13620.50†	90.252	0.063	7437.35	6085.78	6008.55	1129.21	40°02'47.9898"N	104°39'3.3362"W	0.00	
13720.50†	90.252	0.063	7436.91	6185.38	6108.55	1129.32	40°02'48.9780"N	104°39'3.3347"W	0.00	
13820.50†	90.252	0.063	7436.47	6284.98	6208.54	1129.43	40°02'49.9662"N	104°39'3.3333"W	0.00	
13920.50†	90.252	0.063	7436.03	6384.59	6308.54	1129.54	40°02'50.9544"N	104°39'3.3318"W	0.00	
14020.50†	90.252	0.063	7435.59	6484.19	6408.54	1129.64	40°02'51.9426"N	104°39'3.3303"W	0.00	
14120.50†	90.252	0.063	7435.15	6583.79	6508.54	1129.75	40°02'52.9308"N	104°39'3.3289"W	0.00	
14220.50†	90.252	0.063	7434.71	6683.40	6608.54	1129.86	40°02'53.9191"N	104°39'3.3274"W	0.00	
14320.50†	90.252	0.063	7434.28	6783.00	6708.54	1129.97	40°02'54.9073"N	104°39'3.3259"W	0.00	
14420.50†	90.252	0.063	7433.84	6882.60	6808.54	1130.08	40°02'55.8955"N	104°39'3.3245"W	0.00	



Planned Wellpath Report  
WILLOW 22-4-4L PWP (REV-B.0)  
Page 7 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14520.50†	90.252	0.063	7433.40	6982.20	6908.54	1130.19	40°02'56.8837"N	104°39'3.3230"W	0.00	
14620.50†	90.252	0.063	7432.96	7081.81	7008.54	1130.30	40°02'57.8719"N	104°39'3.3216"W	0.00	
14720.50†	90.252	0.063	7432.52	7181.41	7108.54	1130.41	40°02'58.8601"N	104°39'3.3201"W	0.00	
14820.50†	90.252	0.063	7432.08	7281.01	7208.53	1130.52	40°02'59.8484"N	104°39'3.3186"W	0.00	
14920.50†	90.252	0.063	7431.64	7380.62	7308.53	1130.63	40°03'0.8366"N	104°39'3.3172"W	0.00	
15020.50†	90.252	0.063	7431.20	7480.22	7408.53	1130.74	40°03'1.8248"N	104°39'3.3157"W	0.00	
15120.50†	90.252	0.063	7430.76	7579.82	7508.53	1130.85	40°03'2.8130"N	104°39'3.3142"W	0.00	
15220.50†	90.252	0.063	7430.32	7679.43	7608.53	1130.96	40°03'3.8012"N	104°39'3.3128"W	0.00	
15320.50†	90.252	0.063	7429.89	7779.03	7708.53	1131.07	40°03'4.7894"N	104°39'3.3113"W	0.00	
15420.50†	90.252	0.063	7429.45	7878.63	7808.53	1131.17	40°03'5.7776"N	104°39'3.3098"W	0.00	
15520.50†	90.252	0.063	7429.01	7978.24	7908.53	1131.28	40°03'6.7659"N	104°39'3.3084"W	0.00	
15620.50†	90.252	0.063	7428.57	8077.84	8008.53	1131.39	40°03'7.7541"N	104°39'3.3069"W	0.00	
15720.50†	90.252	0.063	7428.13	8177.44	8108.52	1131.50	40°03'8.7423"N	104°39'3.3054"W	0.00	
15820.50†	90.252	0.063	7427.69	8277.05	8208.52	1131.61	40°03'9.7305"N	104°39'3.3040"W	0.00	
15920.50†	90.252	0.063	7427.25	8376.65	8308.52	1131.72	40°03'10.7187"N	104°39'3.3025"W	0.00	
16020.50†	90.252	0.063	7426.81	8476.25	8408.52	1131.83	40°03'11.7069"N	104°39'3.3011"W	0.00	
16120.50†	90.252	0.063	7426.37	8575.86	8508.52	1131.94	40°03'12.6951"N	104°39'3.2996"W	0.00	
16220.50†	90.252	0.063	7425.93	8675.46	8608.52	1132.05	40°03'13.6834"N	104°39'3.2981"W	0.00	
16320.50†	90.252	0.063	7425.49	8775.06	8708.52	1132.16	40°03'14.6716"N	104°39'3.2967"W	0.00	
16420.50†	90.252	0.063	7425.06	8874.67	8808.52	1132.27	40°03'15.6598"N	104°39'3.2952"W	0.00	
16520.50†	90.252	0.063	7424.62	8974.27	8908.52	1132.38	40°03'16.6480"N	104°39'3.2937"W	0.00	
16620.50†	90.252	0.063	7424.18	9073.87	9008.52	1132.49	40°03'17.6362"N	104°39'3.2923"W	0.00	
16720.50†	90.252	0.063	7423.74	9173.48	9108.51	1132.60	40°03'18.6244"N	104°39'3.2908"W	0.00	
16820.50†	90.252	0.063	7423.30	9273.08	9208.51	1132.70	40°03'19.6126"N	104°39'3.2893"W	0.00	
16920.50†	90.252	0.063	7422.86	9372.68	9308.51	1132.81	40°03'20.6009"N	104°39'3.2879"W	0.00	
17020.50†	90.252	0.063	7422.42	9472.29	9408.51	1132.92	40°03'21.5891"N	104°39'3.2864"W	0.00	
17120.50†	90.252	0.063	7421.98	9571.89	9508.51	1133.03	40°03'22.5773"N	104°39'3.2850"W	0.00	
17220.50†	90.252	0.063	7421.54	9671.49	9608.51	1133.14	40°03'23.5655"N	104°39'3.2835"W	0.00	
17320.50†	90.252	0.063	7421.10	9771.09	9708.51	1133.25	40°03'24.5537"N	104°39'3.2820"W	0.00	
17420.50†	90.252	0.063	7420.66	9870.70	9808.51	1133.36	40°03'25.5419"N	104°39'3.2806"W	0.00	





Planned Wellpath Report

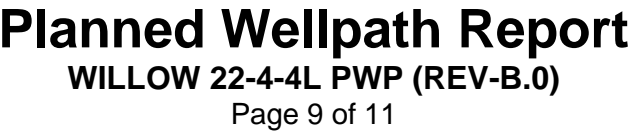
WILLOW 22-4-4L PWP (REV-B.0)

Page 8 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

WELLPATH DATA (208 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17520.50†	90.252	0.063	7420.23	9970.30	9908.51	1133.47	40°03'26.5301"N	104°39'3.2791"W	0.00	
17620.50†	90.252	0.063	7419.79	10069.90	10008.51	1133.58	40°03'27.5184"N	104°39'3.2776"W	0.00	
17720.50†	90.252	0.063	7419.35	10169.51	10108.50	1133.69	40°03'28.5066"N	104°39'3.2762"W	0.00	
17820.50†	90.252	0.063	7418.91	10269.11	10208.50	1133.80	40°03'29.4948"N	104°39'3.2747"W	0.00	
17920.50†	90.252	0.063	7418.47	10368.71	10308.50	1133.91	40°03'30.4830"N	104°39'3.2732"W	0.00	
18020.50†	90.252	0.063	7418.03	10468.32	10408.50	1134.02	40°03'31.4712"N	104°39'3.2718"W	0.00	
18120.50†	90.252	0.063	7417.59	10567.92	10508.50	1134.12	40°03'32.4594"N	104°39'3.2703"W	0.00	
18220.50†	90.252	0.063	7417.15	10667.52	10608.50	1134.23	40°03'33.4476"N	104°39'3.2689"W	0.00	
18320.50†	90.252	0.063	7416.71	10767.13	10708.50	1134.34	40°03'34.4358"N	104°39'3.2674"W	0.00	
18420.50†	90.252	0.063	7416.27	10866.73	10808.50	1134.45	40°03'35.4241"N	104°39'3.2659"W	0.00	
18520.50†	90.252	0.063	7415.83	10966.33	10908.50	1134.56	40°03'36.4123"N	104°39'3.2645"W	0.00	
18620.50†	90.252	0.063	7415.40	11065.94	11008.50	1134.67	40°03'37.4005"N	104°39'3.2630"W	0.00	
18720.50†	90.252	0.063	7414.96	11165.54	11108.49	1134.78	40°03'38.3887"N	104°39'3.2615"W	0.00	
18820.50†	90.252	0.063	7414.52	11265.14	11208.49	1134.89	40°03'39.3769"N	104°39'3.2601"W	0.00	
18920.50†	90.252	0.063	7414.08	11364.75	11308.49	1135.00	40°03'40.3651"N	104°39'3.2586"W	0.00	
19020.50†	90.252	0.063	7413.64	11464.35	11408.49	1135.11	40°03'41.3533"N	104°39'3.2571"W	0.00	
19120.50†	90.252	0.063	7413.20	11563.95	11508.49	1135.22	40°03'42.3416"N	104°39'3.2557"W	0.00	
19220.50†	90.252	0.063	7412.76	11663.56	11608.49	1135.33	40°03'43.3298"N	104°39'3.2542"W	0.00	
19320.50†	90.252	0.063	7412.32	11763.16	11708.49	1135.44	40°03'44.3180"N	104°39'3.2527"W	0.00	
19420.50†	90.252	0.063	7411.88	11862.76	11808.49	1135.55	40°03'45.3062"N	104°39'3.2513"W	0.00	
19520.50†	90.252	0.063	7411.44	11962.37	11908.49	1135.65	40°03'46.2944"N	104°39'3.2498"W	0.00	
19620.50†	90.252	0.063	7411.00	12061.97	12008.48	1135.76	40°03'47.2826"N	104°39'3.2484"W	0.00	
19720.50†	90.252	0.063	7410.57	12161.57	12108.48	1135.87	40°03'48.2708"N	104°39'3.2469"W	0.00	
19820.50†	90.252	0.063	7410.13	12261.18	12208.48	1135.98	40°03'49.2591"N	104°39'3.2454"W	0.00	
19920.50†	90.252	0.063	7409.69	12360.78	12308.48	1136.09	40°03'50.2473"N	104°39'3.2440"W	0.00	
20020.50†	90.252	0.063	7409.25	12460.38	12408.48	1136.20	40°03'51.2355"N	104°39'3.2425"W	0.00	
20120.50†	90.252	0.063	7408.81	12559.99	12508.48	1136.31	40°03'52.2237"N	104°39'3.2410"W	0.00	
20190.96	90.252	0.063	7408.50 <sup>2</sup>	12630.17	12578.94	1136.39	40°03'52.9200"N	104°39'3.2400"W	0.00	End of Tangent



Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185°FSL & 1296°FWL,SEC.22)		

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	20.50	1500.00	1479.50	20.50	1491.37	0.00	0.00	-31.29	108.66

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
HARDLINES SEC.10,15,22-T01N-R65W 460'N/S&E/W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W	polygon
	2D Polygon: dimensions not calculated								
SEC.10-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W	polygon
	2D Polygon: dimensions not calculated								
SEC.15-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W	polygon
	2D Polygon: dimensions not calculated								
SEC.22-T01N-R65W	N/A	4.50	0.00	-249.24	3236383.46	1254962.14	40°01'48.6120"N	104°39'21.0600"W	polygon
	2D Polygon: dimensions not calculated								
2) WILLOW 22-4-4L BHL ON PLAT REV-1 (2174'FSL & 2420'FWL,SEC.10)	20190.96	7408.50	12578.94	1136.39	3237649.10	1267553.23	40°03'52.9200"N	104°39'3.2400"W	point
1) WILLOW 22-4-4L LP ON PLAT REV-1 (470'FSL & 2420'FWL,SEC.22)	7892.42	7462.50	280.53	1122.95	3237752.86	1255255.72	40°01'51.3840"N	104°39'3.4200"W	point



Planned Wellpath Report

WILLOW 22-4-4L PWP (REV-B.0)

Page 10 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

SURVEY PROGRAM - Ref Wellbore: WILLOW 22-4-4L PWB    Ref Wellpath: WILLOW 22-4-4L PWP (REV-B.0)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
20.50	1500.00	BHI NaviTrak (Rotating+Axial Corr)		WILLOW 22-4-4L PWB
1500.00	20190.96	BH AutoTrak Curve (Short)		WILLOW 22-4-4L PWB



Planned Wellpath Report

WILLOW 22-4-4L PWP (REV-B.0)

Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Well	WILLOW 22-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	API/Legal	
Facility	SEC.22-T01N-R65W	Wellbore	WILLOW 22-4-4L PWB
Slot	SLOT#11 WILLOW 22-4-4L (185'FSL & 1296'FWL,SEC.22)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
20.50	0.000	106.065	20.50	Tie On
600.00	0.000	106.065	600.00	End of Tangent
1100.69	10.014	106.065	1098.14	End of Build
6962.47	10.014	106.065	6870.62	End of Tangent
7892.42	90.252	0.063	7462.50	End of 3D Arc
20190.96	90.252	0.063	7408.50	End of Tangent