

CONFLUENCE RESOURCES

Location: COLORADO

Field: WELD COUNTY (NAD83, TRUE NORTH)

Facility: SEC.22-T01N-R65W

Slot: SLOT#10 WILLOW 22-14-2L (185°FSL & 1271°FWL, SEC.22)

Well: WILLOW 22-14-2L

Wellbore: WILLOW 22-14-2L PWB

Plot reference wellpath is WILLOW 22-14-2L PWP (REV-A.0)

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet

True vertical depths are referenced to RIG (17) (RKB)

North Reference: True north

Measured depths are referenced to RIG (17) (RKB)

Scale: True distance

RIG (17) (RKB) to Mean Sea Level: 5108 feet

Depths are in feet

Mean Sea Level to Mud line (At Slot: SLOT#10 WILLOW 22-14-2L (185°FSL & 1271°FWL, SEC.22)): 0 feet

Created by: robinko1 on 2019-02-27

Coordinates are in feet referenced to Slot

Database: WADENVER

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.22-T01N-R65W			3236383.461	1254962.137	40°01'48.612"N	104°39'21.060"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#10 WILLOW 22-14-2L (185°FSL & 1271°FWL, SEC.22)	0.00	224.03	3236607.475	1254964.270	40°01'48.612"N	104°39'18.180"W
RIG (17) (RKB) to Mud line (At Slot: SLOT#10 WILLOW 22-14-2L (185°FSL & 1271°FWL, SEC.22))					5108ft	
Mean Sea Level to Mud line (At Slot: SLOT#10 WILLOW 22-14-2L (185°FSL & 1271°FWL, SEC.22))					0ft	
RIG (17) (RKB) to Mean Sea Level					5108ft	

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 460N&S&E		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.10-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.15-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.22-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
WILLOW 22-14-2L BHL ON PLAT (2175°FSL & 1989°FWL, SEC.10)	19941.84	7271.00	12581.66	731.99	3237219.52	1267551.86	40°03'52.947"N	104°39'08.765"W
WILLOW 22-14-2L LP ON PLAT (470°FSL & 1989°FWL, SEC.22)	7644.33	7271.00	284.16	716.89	3237321.60	1265355.23	40°01'51.420"N	104°39'08.964"W

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		WILLOW 22-14-2L PWB
1500.00	19941.84	BHI AutoTrak Curve	BHI AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-14-2L PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	113.906	17.00	0.00	0.00	0.00	0.00
End of Tangent	650.00	0.000	113.906	650.00	0.00	0.00	0.00	0.00
End of Build	996.36	6.927	113.906	995.52	-8.47	19.12	2.00	-7.35
End of Tangent	6716.39	6.927	113.906	6673.79	-288.04	649.82	0.00	-249.81
End of 3D Arc	7644.33	90.000	0.070	7271.00	284.16	716.89	10.00	325.31
End of Tangent	19941.84	90.000	0.070	7271.00	12581.66	731.99	0.00	12602.93

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
19941.84	90.00	0.070	7271.00	12581.66	731.99	3237219.52	1267551.86	40°03'52.947"N	104°39'08.765"W

True Vertical Depth (ft)

Scale 1 inch = 1500'

5250

6000

6750

7500

0

750

1500

2250

3000

3750

4500

5250

6000

End of Tangent : 6.93° Inc, 6716.39ft MD, 6673.79ft TVD, -249.81ft VS

10.00°/100ft

End of 3D Arc : 90.00° Inc, 7644.33ft MD, 7271.00ft TVD, 325.31ft VS

WILLOW 22-14-2L LP ON PLAT (470°FSL & 1989°FWL, SEC.22)

N

TRUE

↑

W

←

→

E

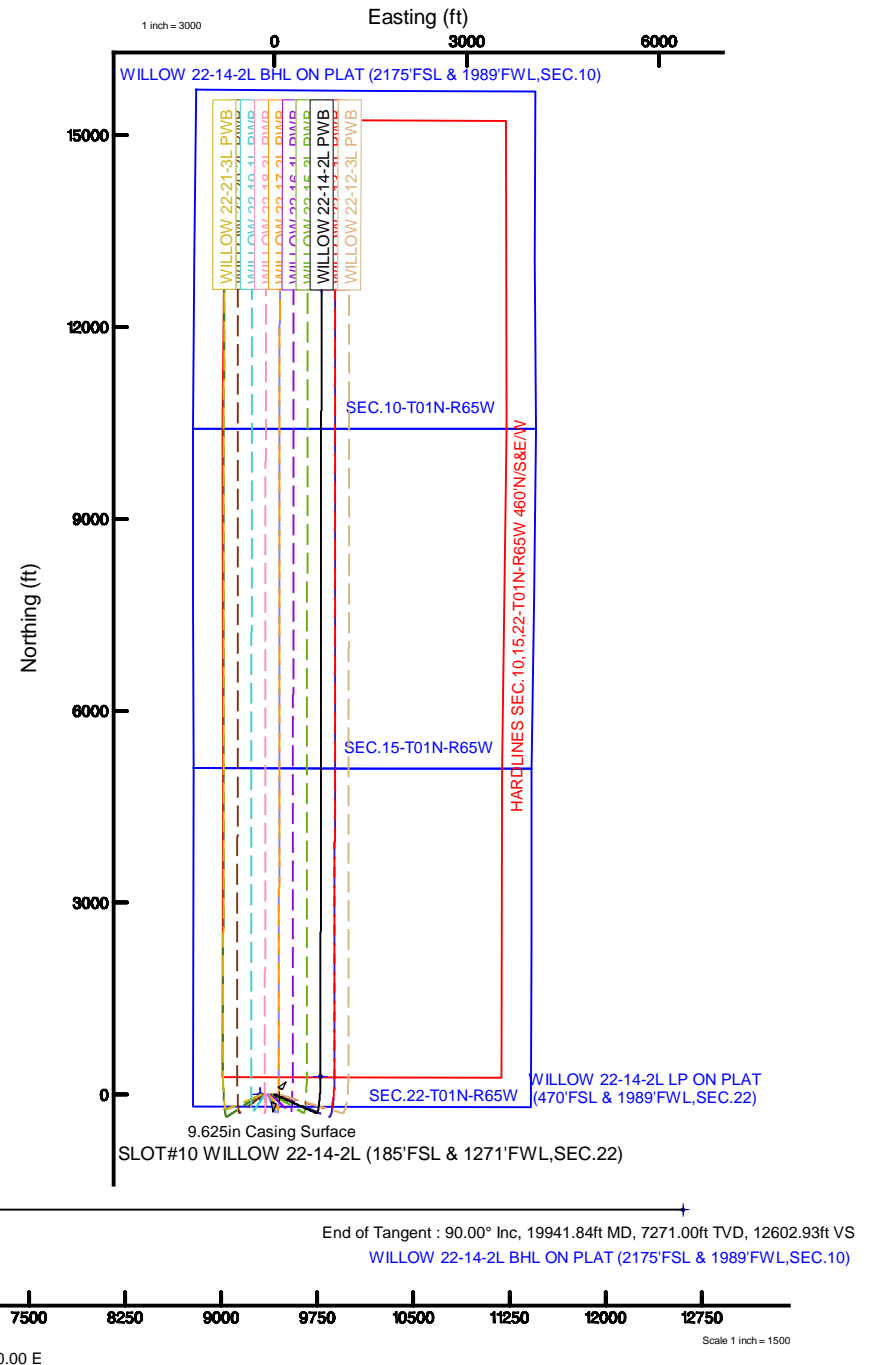
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MAG

BGGM (1900.0 to 2020.0) Dip: 66.52° Field: 52042.6
Magnetic North is 8.13 degrees East of True North (at 2/27)

To correct azimuth from Magnetic to True add 8.13 deg

Vertical Azimuth 3.33° v



Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Robiale01
Scale	0.999964	Report Generated	2/27/2019 at 1:44:37 PM
Convergence at slot	0.55° East	Database/Source file	WA DENVER/WILLOW_22-14-2L_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	0.00	224.03	3236607.48	1254964.27	40°01'48.612"N	104°39'18.180"W
Facility Reference Pt			3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
Field Reference Pt			3230456.90	1245096.09	40°00'11.664"N	104°40'38.424"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	5108.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	5108.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Mud Line at Slot (SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22))	5108.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	3.33°

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 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	113.906	0.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
17.00	0.000	113.906	17.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	Tie On
117.00†	0.000	113.906	117.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
217.00†	0.000	113.906	217.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
317.00†	0.000	113.906	317.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
417.00†	0.000	113.906	417.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
517.00†	0.000	113.906	517.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
617.00†	0.000	113.906	617.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	
650.00	0.000	113.906	650.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.180"W	0.00	End of Tangent
717.00†	1.340	113.906	716.99	-0.28	-0.32	0.72	40°01'48.609"N	104°39'18.171"W	2.00	
817.00†	3.340	113.906	816.91	-1.71	-1.97	4.45	40°01'48.593"N	104°39'18.123"W	2.00	
917.00†	5.340	113.906	916.61	-4.37	-5.04	11.37	40°01'48.562"N	104°39'18.034"W	2.00	
996.36	6.927	113.906	995.52	-7.35	-8.47	19.12	40°01'48.528"N	104°39'17.934"W	2.00	End of Build
1017.00†	6.927	113.906	1016.01	-8.22	-9.48	21.39	40°01'48.518"N	104°39'17.905"W	0.00	
1117.00†	6.927	113.906	1115.28	-12.46	-14.37	32.42	40°01'48.470"N	104°39'17.763"W	0.00	
1217.00†	6.927	113.906	1214.55	-16.70	-19.26	43.45	40°01'48.422"N	104°39'17.621"W	0.00	
1317.00†	6.927	113.906	1313.82	-20.94	-24.15	54.47	40°01'48.373"N	104°39'17.480"W	0.00	
1417.00†	6.927	113.906	1413.09	-25.18	-29.03	65.50	40°01'48.325"N	104°39'17.338"W	0.00	
1517.00†	6.927	113.906	1512.36	-29.42	-33.92	76.53	40°01'48.277"N	104°39'17.196"W	0.00	
1617.00†	6.927	113.906	1611.63	-33.66	-38.81	87.55	40°01'48.228"N	104°39'17.054"W	0.00	
1717.00†	6.927	113.906	1710.90	-37.90	-43.70	98.58	40°01'48.180"N	104°39'16.913"W	0.00	
1817.00†	6.927	113.906	1810.17	-42.14	-48.58	109.60	40°01'48.132"N	104°39'16.771"W	0.00	
1917.00†	6.927	113.906	1909.44	-46.37	-53.47	120.63	40°01'48.084"N	104°39'16.629"W	0.00	
2017.00†	6.927	113.906	2008.71	-50.61	-58.36	131.66	40°01'48.035"N	104°39'16.488"W	0.00	
2117.00†	6.927	113.906	2107.98	-54.85	-63.25	142.68	40°01'47.987"N	104°39'16.346"W	0.00	
2217.00†	6.927	113.906	2207.25	-59.09	-68.13	153.71	40°01'47.939"N	104°39'16.204"W	0.00	
2317.00†	6.927	113.906	2306.52	-63.33	-73.02	164.74	40°01'47.890"N	104°39'16.062"W	0.00	
2417.00†	6.927	113.906	2405.79	-67.57	-77.91	175.76	40°01'47.842"N	104°39'15.921"W	0.00	
2517.00†	6.927	113.906	2505.06	-71.81	-82.80	186.79	40°01'47.794"N	104°39'15.779"W	0.00	
2617.00†	6.927	113.906	2604.33	-76.05	-87.68	197.81	40°01'47.745"N	104°39'15.637"W	0.00	
2717.00†	6.927	113.906	2703.60	-80.28	-92.57	208.84	40°01'47.697"N	104°39'15.495"W	0.00	
2817.00†	6.927	113.906	2802.87	-84.52	-97.46	219.87	40°01'47.649"N	104°39'15.354"W	0.00	
2917.00†	6.927	113.906	2902.14	-88.76	-102.35	230.89	40°01'47.601"N	104°39'15.212"W	0.00	
3017.00†	6.927	113.906	3001.41	-93.00	-107.23	241.92	40°01'47.552"N	104°39'15.070"W	0.00	
3117.00†	6.927	113.906	3100.68	-97.24	-112.12	252.95	40°01'47.504"N	104°39'14.928"W	0.00	
3217.00†	6.927	113.906	3199.95	-101.48	-117.01	263.97	40°01'47.456"N	104°39'14.787"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	6.927	113.906	3299.22	-105.72	-121.90	275.00	40°01'47.407"N	104°39'14.645"W	0.00	
3417.00†	6.927	113.906	3398.49	-109.96	-126.78	286.02	40°01'47.359"N	104°39'14.503"W	0.00	
3517.00†	6.927	113.906	3497.76	-114.19	-131.67	297.05	40°01'47.311"N	104°39'14.361"W	0.00	
3617.00†	6.927	113.906	3597.03	-118.43	-136.56	308.08	40°01'47.262"N	104°39'14.220"W	0.00	
3717.00†	6.927	113.906	3696.30	-122.67	-141.44	319.10	40°01'47.214"N	104°39'14.078"W	0.00	
3817.00†	6.927	113.906	3795.57	-126.91	-146.33	330.13	40°01'47.166"N	104°39'13.936"W	0.00	
3917.00†	6.927	113.906	3894.84	-131.15	-151.22	341.16	40°01'47.118"N	104°39'13.794"W	0.00	
4017.00†	6.927	113.906	3994.11	-135.39	-156.11	352.18	40°01'47.069"N	104°39'13.653"W	0.00	
4117.00†	6.927	113.906	4093.38	-139.63	-160.99	363.21	40°01'47.021"N	104°39'13.511"W	0.00	

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	6.927	113.906	4192.65	-143.87	-165.88	374.23	40°01'46.973"N	104°39'13.369"W	0.00	
4317.00†	6.927	113.906	4291.92	-148.11	-170.77	385.26	40°01'46.924"N	104°39'13.227"W	0.00	
4417.00†	6.927	113.906	4391.19	-152.34	-175.66	396.29	40°01'46.876"N	104°39'13.086"W	0.00	
4517.00†	6.927	113.906	4490.46	-156.58	-180.54	407.31	40°01'46.828"N	104°39'12.944"W	0.00	
4617.00†	6.927	113.906	4589.73	-160.82	-185.43	418.34	40°01'46.779"N	104°39'12.802"W	0.00	
4717.00†	6.927	113.906	4689.00	-165.06	-190.32	429.36	40°01'46.731"N	104°39'12.660"W	0.00	
4817.00†	6.927	113.906	4788.27	-169.30	-195.21	440.39	40°01'46.683"N	104°39'12.519"W	0.00	
4917.00†	6.927	113.906	4887.54	-173.54	-200.09	451.42	40°01'46.635"N	104°39'12.377"W	0.00	
5017.00†	6.927	113.906	4986.81	-177.78	-204.98	462.44	40°01'46.586"N	104°39'12.235"W	0.00	
5117.00†	6.927	113.906	5086.08	-182.02	-209.87	473.47	40°01'46.538"N	104°39'12.093"W	0.00	
5217.00†	6.927	113.906	5185.35	-186.25	-214.76	484.50	40°01'46.490"N	104°39'11.952"W	0.00	
5317.00†	6.927	113.906	5284.62	-190.49	-219.64	495.52	40°01'46.441"N	104°39'11.810"W	0.00	
5417.00†	6.927	113.906	5383.89	-194.73	-224.53	506.55	40°01'46.393"N	104°39'11.668"W	0.00	
5517.00†	6.927	113.906	5483.16	-198.97	-229.42	517.57	40°01'46.345"N	104°39'11.526"W	0.00	
5617.00†	6.927	113.906	5582.43	-203.21	-234.31	528.60	40°01'46.296"N	104°39'11.385"W	0.00	
5717.00†	6.927	113.906	5681.70	-207.45	-239.19	539.63	40°01'46.248"N	104°39'11.243"W	0.00	
5817.00†	6.927	113.906	5780.97	-211.69	-244.08	550.65	40°01'46.200"N	104°39'11.101"W	0.00	
5917.00†	6.927	113.906	5880.24	-215.93	-248.97	561.68	40°01'46.152"N	104°39'10.960"W	0.00	
6017.00†	6.927	113.906	5979.51	-220.16	-253.86	572.71	40°01'46.103"N	104°39'10.818"W	0.00	
6117.00†	6.927	113.906	6078.78	-224.40	-258.74	583.73	40°01'46.055"N	104°39'10.676"W	0.00	
6217.00†	6.927	113.906	6178.05	-228.64	-263.63	594.76	40°01'46.007"N	104°39'10.534"W	0.00	
6317.00†	6.927	113.906	6277.32	-232.88	-268.52	605.78	40°01'45.958"N	104°39'10.393"W	0.00	
6417.00†	6.927	113.906	6376.59	-237.12	-273.41	616.81	40°01'45.910"N	104°39'10.251"W	0.00	
6517.00†	6.927	113.906	6475.86	-241.36	-278.29	627.84	40°01'45.862"N	104°39'10.109"W	0.00	
6617.00†	6.927	113.906	6575.13	-245.60	-283.18	638.86	40°01'45.813"N	104°39'09.967"W	0.00	
6716.39	6.927	113.906	6673.79	-249.81	-288.04	649.82	40°01'45.765"N	104°39'09.826"W	0.00	End of Tangent
6717.00†	6.903	113.443	6674.40	-249.84	-288.07	649.89	40°01'45.765"N	104°39'09.826"W	10.00	
6817.00†	9.634	40.968	6773.58	-245.27	-284.13	660.92	40°01'45.804"N	104°39'09.684"W	10.00	
6917.00†	18.361	19.633	6870.58	-223.47	-262.92	671.72	40°01'46.014"N	104°39'09.545"W	10.00	
7017.00†	27.940	12.166	6962.44	-185.10	-225.09	681.98	40°01'46.387"N	104°39'09.413"W	10.00	
7117.00†	37.725	8.330	7046.37	-131.34	-171.79	691.37	40°01'46.914"N	104°39'09.292"W	10.00	
7217.00†	47.590	5.897	7119.82	-63.81	-104.62	699.62	40°01'47.578"N	104°39'09.186"W	10.00	
7317.00†	57.492	4.131	7180.57	15.43	-25.64	706.46	40°01'48.358"N	104°39'09.098"W	10.00	
7417.00†	67.414	2.720	7226.76	103.98	62.75	711.71	40°01'49.232"N	104°39'09.031"W	10.00	
7517.00†	77.346	1.500	7257.00	199.15	157.87	715.18	40°01'50.172"N	104°39'08.986"W	10.00	
7617.00†	87.284	0.372	7270.35	298.04	256.84	716.79	40°01'51.150"N	104°39'08.965"W	10.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7644.33	90.000	0.070	7271.00†	325.31	284.16	716.89	40°01'51.420"N	104°39'08.964"W	10.00	End of 3D Arc
7717.00†	90.000	0.070	7271.00	397.87	356.83	716.98	40°01'52.138"N	104°39'08.963"W	0.00	
7817.00†	90.000	0.070	7271.00	497.71	456.83	717.11	40°01'53.126"N	104°39'08.961"W	0.00	
7917.00†	90.000	0.070	7271.00	597.54	556.83	717.23	40°01'54.115"N	104°39'08.960"W	0.00	
8017.00†	90.000	0.070	7271.00	697.38	656.83	717.35	40°01'55.103"N	104°39'08.958"W	0.00	
8117.00†	90.000	0.070	7271.00	797.22	756.83	717.48	40°01'56.091"N	104°39'08.956"W	0.00	
8217.00†	90.000	0.070	7271.00	897.06	856.83	717.60	40°01'57.079"N	104°39'08.955"W	0.00	
8317.00†	90.000	0.070	7271.00	996.90	956.83	717.72	40°01'58.068"N	104°39'08.953"W	0.00	
8417.00†	90.000	0.070	7271.00	1096.74	1056.83	717.84	40°01'59.056"N	104°39'08.952"W	0.00	

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.070	7271.00	1196.57	1156.83	717.97	40°02'00.044"N	104°39'08.950"W	0.00	
8617.00†	90.000	0.070	7271.00	1296.41	1256.83	718.09	40°02'01.032"N	104°39'08.948"W	0.00	
8717.00†	90.000	0.070	7271.00	1396.25	1356.83	718.21	40°02'02.020"N	104°39'08.947"W	0.00	
8817.00†	90.000	0.070	7271.00	1496.09	1456.83	718.33	40°02'03.009"N	104°39'08.945"W	0.00	
8917.00†	90.000	0.070	7271.00	1595.93	1556.83	718.46	40°02'03.997"N	104°39'08.943"W	0.00	
9017.00†	90.000	0.070	7271.00	1695.76	1656.83	718.58	40°02'04.985"N	104°39'08.942"W	0.00	
9117.00†	90.000	0.070	7271.00	1795.60	1756.83	718.70	40°02'05.973"N	104°39'08.940"W	0.00	
9217.00†	90.000	0.070	7271.00	1895.44	1856.83	718.83	40°02'06.962"N	104°39'08.939"W	0.00	
9317.00†	90.000	0.070	7271.00	1995.28	1956.83	718.95	40°02'07.950"N	104°39'08.937"W	0.00	
9417.00†	90.000	0.070	7271.00	2095.12	2056.83	719.07	40°02'08.938"N	104°39'08.935"W	0.00	
9517.00†	90.000	0.070	7271.00	2194.96	2156.83	719.19	40°02'09.926"N	104°39'08.934"W	0.00	
9617.00†	90.000	0.070	7271.00	2294.79	2256.83	719.32	40°02'10.914"N	104°39'08.932"W	0.00	
9717.00†	90.000	0.070	7271.00	2394.63	2356.83	719.44	40°02'11.903"N	104°39'08.931"W	0.00	
9817.00†	90.000	0.070	7271.00	2494.47	2456.83	719.56	40°02'12.891"N	104°39'08.929"W	0.00	
9917.00†	90.000	0.070	7271.00	2594.31	2556.83	719.68	40°02'13.879"N	104°39'08.927"W	0.00	
10017.00†	90.000	0.070	7271.00	2694.15	2656.82	719.81	40°02'14.867"N	104°39'08.926"W	0.00	
10117.00†	90.000	0.070	7271.00	2793.99	2756.82	719.93	40°02'15.856"N	104°39'08.924"W	0.00	
10217.00†	90.000	0.070	7271.00	2893.82	2856.82	720.05	40°02'16.844"N	104°39'08.922"W	0.00	
10317.00†	90.000	0.070	7271.00	2993.66	2956.82	720.18	40°02'17.832"N	104°39'08.921"W	0.00	
10417.00†	90.000	0.070	7271.00	3093.50	3056.82	720.30	40°02'18.820"N	104°39'08.919"W	0.00	
10517.00†	90.000	0.070	7271.00	3193.34	3156.82	720.42	40°02'19.808"N	104°39'08.918"W	0.00	
10617.00†	90.000	0.070	7271.00	3293.18	3256.82	720.54	40°02'20.797"N	104°39'08.916"W	0.00	
10717.00†	90.000	0.070	7271.00	3393.01	3356.82	720.67	40°02'21.785"N	104°39'08.914"W	0.00	
10817.00†	90.000	0.070	7271.00	3492.85	3456.82	720.79	40°02'22.773"N	104°39'08.913"W	0.00	
10917.00†	90.000	0.070	7271.00	3592.69	3556.82	720.91	40°02'23.761"N	104°39'08.911"W	0.00	
11017.00†	90.000	0.070	7271.00	3692.53	3656.82	721.03	40°02'24.750"N	104°39'08.910"W	0.00	
11117.00†	90.000	0.070	7271.00	3792.37	3756.82	721.16	40°02'25.738"N	104°39'08.908"W	0.00	
11217.00†	90.000	0.070	7271.00	3892.21	3856.82	721.28	40°02'26.726"N	104°39'08.906"W	0.00	
11317.00†	90.000	0.070	7271.00	3992.04	3956.82	721.40	40°02'27.714"N	104°39'08.905"W	0.00	
11417.00†	90.000	0.070	7271.00	4091.88	4056.82	721.53	40°02'28.703"N	104°39'08.903"W	0.00	
11517.00†	90.000	0.070	7271.00	4191.72	4156.82	721.65	40°02'29.691"N	104°39'08.901"W	0.00	
11617.00†	90.000	0.070	7271.00	4291.56	4256.82	721.77	40°02'30.679"N	104°39'08.900"W	0.00	
11717.00†	90.000	0.070	7271.00	4391.40	4356.82	721.89	40°02'31.667"N	104°39'08.898"W	0.00	
11817.00†	90.000	0.070	7271.00	4491.24	4456.82	722.02	40°02'32.655"N	104°39'08.897"W	0.00	
11917.00†	90.000	0.070	7271.00	4591.07	4556.82	722.14	40°02'33.644"N	104°39'08.895"W	0.00	
12017.00†	90.000	0.070	7271.00	4690.91	4656.82	722.26	40°02'34.632"N	104°39'08.893"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.000	0.070	7271.00	4790.75	4756.82	722.39	40°02'35.620"N	104°39'08.892"W	0.00	
12217.00†	90.000	0.070	7271.00	4890.59	4856.82	722.51	40°02'36.608"N	104°39'08.890"W	0.00	
12317.00†	90.000	0.070	7271.00	4990.43	4956.82	722.63	40°02'37.597"N	104°39'08.889"W	0.00	
12417.00†	90.000	0.070	7271.00	5090.26	5056.82	722.75	40°02'38.585"N	104°39'08.887"W	0.00	
12517.00†	90.000	0.070	7271.00	5190.10	5156.82	722.88	40°02'39.573"N	104°39'08.885"W	0.00	
12617.00†	90.000	0.070	7271.00	5289.94	5256.82	723.00	40°02'40.561"N	104°39'08.884"W	0.00	
12717.00†	90.000	0.070	7271.00	5389.78	5356.82	723.12	40°02'41.549"N	104°39'08.882"W	0.00	
12817.00†	90.000	0.070	7271.00	5489.62	5456.82	723.24	40°02'42.538"N	104°39'08.880"W	0.00	
12917.00†	90.000	0.070	7271.00	5589.46	5556.82	723.37	40°02'43.526"N	104°39'08.879"W	0.00	

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13017.00†	90.000	0.070	7271.00	5689.29	5656.82	723.49	40°02'44.514"N	104°39'08.877"W	0.00	
13117.00†	90.000	0.070	7271.00	5789.13	5756.82	723.61	40°02'45.502"N	104°39'08.876"W	0.00	
13217.00†	90.000	0.070	7271.00	5888.97	5856.82	723.74	40°02'46.491"N	104°39'08.874"W	0.00	
13317.00†	90.000	0.070	7271.00	5988.81	5956.82	723.86	40°02'47.479"N	104°39'08.872"W	0.00	
13417.00†	90.000	0.070	7271.00	6088.65	6056.82	723.98	40°02'48.467"N	104°39'08.871"W	0.00	
13517.00†	90.000	0.070	7271.00	6188.49	6156.82	724.10	40°02'49.455"N	104°39'08.869"W	0.00	
13617.00†	90.000	0.070	7271.00	6288.32	6256.82	724.23	40°02'50.443"N	104°39'08.868"W	0.00	
13717.00†	90.000	0.070	7271.00	6388.16	6356.82	724.35	40°02'51.432"N	104°39'08.866"W	0.00	
13817.00†	90.000	0.070	7271.00	6488.00	6456.82	724.47	40°02'52.420"N	104°39'08.864"W	0.00	
13917.00†	90.000	0.070	7271.00	6587.84	6556.82	724.59	40°02'53.408"N	104°39'08.863"W	0.00	
14017.00†	90.000	0.070	7271.00	6687.68	6656.82	724.72	40°02'54.396"N	104°39'08.861"W	0.00	
14117.00†	90.000	0.070	7271.00	6787.51	6756.82	724.84	40°02'55.385"N	104°39'08.859"W	0.00	
14217.00†	90.000	0.070	7271.00	6887.35	6856.82	724.96	40°02'56.373"N	104°39'08.858"W	0.00	
14317.00†	90.000	0.070	7271.00	6987.19	6956.82	725.09	40°02'57.361"N	104°39'08.856"W	0.00	
14417.00†	90.000	0.070	7271.00	7087.03	7056.82	725.21	40°02'58.349"N	104°39'08.855"W	0.00	
14517.00†	90.000	0.070	7271.00	7186.87	7156.82	725.33	40°02'59.337"N	104°39'08.853"W	0.00	
14617.00†	90.000	0.070	7271.00	7286.71	7256.82	725.45	40°03'00.326"N	104°39'08.851"W	0.00	
14717.00†	90.000	0.070	7271.00	7386.54	7356.82	725.58	40°03'01.314"N	104°39'08.850"W	0.00	
14817.00†	90.000	0.070	7271.00	7486.38	7456.82	725.70	40°03'02.302"N	104°39'08.848"W	0.00	
14917.00†	90.000	0.070	7271.00	7586.22	7556.82	725.82	40°03'03.290"N	104°39'08.847"W	0.00	
15017.00†	90.000	0.070	7271.00	7686.06	7656.82	725.94	40°03'04.279"N	104°39'08.845"W	0.00	
15117.00†	90.000	0.070	7271.00	7785.90	7756.82	726.07	40°03'05.267"N	104°39'08.843"W	0.00	
15217.00†	90.000	0.070	7271.00	7885.74	7856.82	726.19	40°03'06.255"N	104°39'08.842"W	0.00	
15317.00†	90.000	0.070	7271.00	7985.57	7956.82	726.31	40°03'07.243"N	104°39'08.840"W	0.00	
15417.00†	90.000	0.070	7271.00	8085.41	8056.82	726.44	40°03'08.231"N	104°39'08.838"W	0.00	
15517.00†	90.000	0.070	7271.00	8185.25	8156.82	726.56	40°03'09.220"N	104°39'08.837"W	0.00	
15617.00†	90.000	0.070	7271.00	8285.09	8256.82	726.68	40°03'10.208"N	104°39'08.835"W	0.00	
15717.00†	90.000	0.070	7271.00	8384.93	8356.82	726.80	40°03'11.196"N	104°39'08.834"W	0.00	
15817.00†	90.000	0.070	7271.00	8484.77	8456.82	726.93	40°03'12.184"N	104°39'08.832"W	0.00	
15917.00†	90.000	0.070	7271.00	8584.60	8556.82	727.05	40°03'13.173"N	104°39'08.830"W	0.00	
16017.00†	90.000	0.070	7271.00	8684.44	8656.82	727.17	40°03'14.161"N	104°39'08.829"W	0.00	
16117.00†	90.000	0.070	7271.00	8784.28	8756.82	727.30	40°03'15.149"N	104°39'08.827"W	0.00	
16217.00†	90.000	0.070	7271.00	8884.12	8856.82	727.42	40°03'16.137"N	104°39'08.825"W	0.00	
16317.00†	90.000	0.070	7271.00	8983.96	8956.82	727.54	40°03'17.125"N	104°39'08.824"W	0.00	
16417.00†	90.000	0.070	7271.00	9083.79	9056.82	727.66	40°03'18.114"N	104°39'08.822"W	0.00	
16517.00†	90.000	0.070	7271.00	9183.63	9156.82	727.79	40°03'19.102"N	104°39'08.821"W	0.00	

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16617.00†	90.000	0.070	7271.00	9283.47	9256.82	727.91	40°03'20.090"N	104°39'08.819"W	0.00	
16717.00†	90.000	0.070	7271.00	9383.31	9356.82	728.03	40°03'21.078"N	104°39'08.817"W	0.00	
16817.00†	90.000	0.070	7271.00	9483.15	9456.82	728.15	40°03'22.067"N	104°39'08.816"W	0.00	
16917.00†	90.000	0.070	7271.00	9582.99	9556.82	728.28	40°03'23.055"N	104°39'08.814"W	0.00	
17017.00†	90.000	0.070	7271.00	9682.82	9656.82	728.40	40°03'24.043"N	104°39'08.813"W	0.00	
17117.00†	90.000	0.070	7271.00	9782.66	9756.82	728.52	40°03'25.031"N	104°39'08.811"W	0.00	
17217.00†	90.000	0.070	7271.00	9882.50	9856.82	728.65	40°03'26.020"N	104°39'08.809"W	0.00	
17317.00†	90.000	0.070	7271.00	9982.34	9956.82	728.77	40°03'27.008"N	104°39'08.808"W	0.00	
17417.00†	90.000	0.070	7271.00	10082.18	10056.82	728.89	40°03'27.996"N	104°39'08.806"W	0.00	

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WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17517.00†	90.000	0.070	7271.00	10182.02	10156.82	729.01	40°03'28.984"N	104°39'08.804"W	0.00	
17617.00†	90.000	0.070	7271.00	10281.85	10256.82	729.14	40°03'29.972"N	104°39'08.803"W	0.00	
17717.00†	90.000	0.070	7271.00	10381.69	10356.82	729.26	40°03'30.961"N	104°39'08.801"W	0.00	
17817.00†	90.000	0.070	7271.00	10481.53	10456.82	729.38	40°03'31.949"N	104°39'08.800"W	0.00	
17917.00†	90.000	0.070	7271.00	10581.37	10556.82	729.50	40°03'32.937"N	104°39'08.798"W	0.00	
18017.00†	90.000	0.070	7271.00	10681.21	10656.82	729.63	40°03'33.925"N	104°39'08.796"W	0.00	
18117.00†	90.000	0.070	7271.00	10781.04	10756.82	729.75	40°03'34.914"N	104°39'08.795"W	0.00	
18217.00†	90.000	0.070	7271.00	10880.88	10856.82	729.87	40°03'35.902"N	104°39'08.793"W	0.00	
18317.00†	90.000	0.070	7271.00	10980.72	10956.82	730.00	40°03'36.890"N	104°39'08.792"W	0.00	
18417.00†	90.000	0.070	7271.00	11080.56	11056.82	730.12	40°03'37.878"N	104°39'08.790"W	0.00	
18517.00†	90.000	0.070	7271.00	11180.40	11156.82	730.24	40°03'38.866"N	104°39'08.788"W	0.00	
18617.00†	90.000	0.070	7271.00	11280.24	11256.82	730.36	40°03'39.855"N	104°39'08.787"W	0.00	
18717.00†	90.000	0.070	7271.00	11380.07	11356.82	730.49	40°03'40.843"N	104°39'08.785"W	0.00	
18817.00†	90.000	0.070	7271.00	11479.91	11456.82	730.61	40°03'41.831"N	104°39'08.783"W	0.00	
18917.00†	90.000	0.070	7271.00	11579.75	11556.82	730.73	40°03'42.819"N	104°39'08.782"W	0.00	
19017.00†	90.000	0.070	7271.00	11679.59	11656.82	730.85	40°03'43.808"N	104°39'08.780"W	0.00	
19117.00†	90.000	0.070	7271.00	11779.43	11756.82	730.98	40°03'44.796"N	104°39'08.779"W	0.00	
19217.00†	90.000	0.070	7271.00	11879.27	11856.82	731.10	40°03'45.784"N	104°39'08.777"W	0.00	
19317.00†	90.000	0.070	7271.00	11979.10	11956.82	731.22	40°03'46.772"N	104°39'08.775"W	0.00	
19417.00†	90.000	0.070	7271.00	12078.94	12056.82	731.35	40°03'47.760"N	104°39'08.774"W	0.00	
19517.00†	90.000	0.070	7271.00	12178.78	12156.82	731.47	40°03'48.749"N	104°39'08.772"W	0.00	
19617.00†	90.000	0.070	7271.00	12278.62	12256.82	731.59	40°03'49.737"N	104°39'08.771"W	0.00	
19717.00†	90.000	0.070	7271.00	12378.46	12356.82	731.71	40°03'50.725"N	104°39'08.769"W	0.00	
19817.00†	90.000	0.070	7271.00	12478.29	12456.82	731.84	40°03'51.713"N	104°39'08.767"W	0.00	
19917.00†	90.000	0.070	7271.00	12578.13	12556.82	731.96	40°03'52.702"N	104°39'08.766"W	0.00	
19941.84	90.000	0.070	7271.00 ²	12602.93	12581.66	731.99	40°03'52.947"N	104°39'08.765"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WILLOW 22-14-2L PWB Ref Wellpath: WILLOW 22-14-2L 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	17.00	1500.00	1483.00	17.00	1495.48	0.00	0.00	-33.09	74.65

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

TARGETS

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		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.10-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.15-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.22-T01N-R65W		0.00	0.00	-224.03	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
2) WILLOW 22-14-2L BHL ON PLAT (2175'FSL & 1989'FWL,SEC.10)	19941.84	7271.00	12581.66	731.99	3237219.52	1267551.86	40°03'52.947"N	104°39'08.765"W	point
1) WILLOW 22-14-2L LP ON PLAT (470'FSL & 1989'FWL,SEC.22)	7644.33	7271.00	284.16	716.89	3237321.60	1255255.23	40°01'51.420"N	104°39'08.964"W	point

SURVEY PROGRAM - Ref Wellbore: WILLOW 22-14-2L PWB Ref Wellpath: WILLOW 22-14-2L PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1500.00	BHI NaviTrak (Rotating+Axial Corr)		WILLOW 22-14-2L PWB
1500.00	19941.84	BHI AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-14-2L PWB

Planned Wellpath Report

WILLOW 22-14-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#10 WILLOW 22-14-2L (185'FSL & 1271'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-14-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-14-2L PWB
Facility	SEC.22-T01N-R65W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	113.906	17.00	Tie On
650.00	0.000	113.906	650.00	End of Tangent
996.36	6.927	113.906	995.52	End of Build
6716.39	6.927	113.906	6673.79	End of Tangent
7644.33	90.000	0.070	7271.00	End of 3D Arc
19941.84	90.000	0.070	7271.00	End of Tangent