

Location:	COLORADO	Slot:	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Field:	WELD COUNTY (NAD83, TRUE NORTH)	Well:	WILLOW 22-17-2L
Facility:	SEC.22-T01N-R65W	Wellbore:	WILLOW 22-17-2L PWB
Plot reference wellpath is WILLOW 22-17-2L 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#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)): 0 feet		Created by: robale01 on 2019-02-27	
Coordinates are in feet referenced to Slot		Database: WADENVER	

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-TOIN-R65W 460N5&EW		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.10-TOIN-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.15-TOIN-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.22-TOIN-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
WILLOW 22-17-2L BHL ON PLAT (178F&SL & 1338F&W, SEC.10)	19878.18	7279.00	12584.49	156.72	3236568.70	1267548.49	40°03'52.979"N	104°39'17.138"W
WILLOW 22-17-2L LP ON PLAT (470F&SL & 1338F&W, SEC.22)	7582.48	7279.00	287.79	142.82	3236617.94	1255258.68	40°01'51.456"N	104°39'17.316"W

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	150.767	17.00	0.00	0.00	0.00	0.00
End of Tangent	800.00	0.000	150.767	800.00	0.00	0.00	0.00	0.00
End of Build	929.97	2.599	150.767	929.93	-2.57	1.44	2.00	-2.55
End of Tangent	6743.69	2.599	150.767	6737.66	-232.66	130.20	0.00	-231.02
End of 3D Arc	7582.48	90.000	0.065	7279.00	287.79	142.82	11.00	289.54
End of Tangent	19879.18	90.000	0.065	7279.00	12584.49	156.72	0.00	12585.46

Scale 1 inch = 1500

True Vertical Depth (ft)

5250

6000

6750

7500

End of Tangent : 2.60° Inc, 6743.69ft MD, 6737.66ft TVD, -231.02ft VS
11.00°/100ft

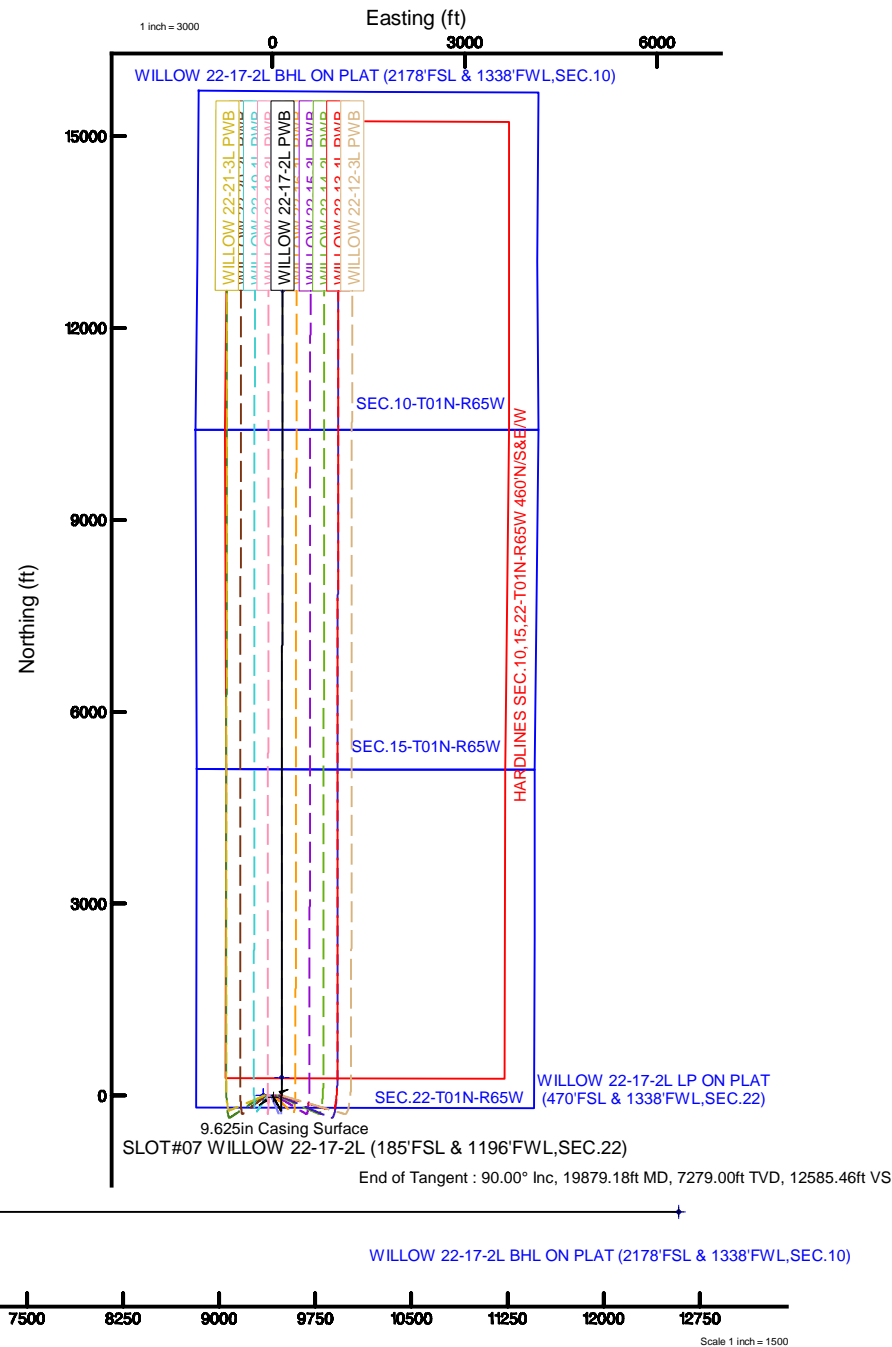
End of 3D Arc : 90.00° Inc, 7582.48ft MD, 7279.00ft TVD, 289.54ft VS

WILLOW 22-17-2L LP ON PLAT (470°FSL & 1338°FWL, SEC. 22)

N
TRUE
MAG
E
W

BGM (1900.0 to 2020.0) Dip: 66.52° Field: 52042.6
Magnetic North is 8.13 degrees East of True North (at 2/22/2020)

To correct azimuth from Magnetic to True add 8.13 degrees



Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L 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 1:02:18 PM
Convergence at slot	0.55° East	Database/Source file	WA DENVER/WILLOW_22-17-2L_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	148.42	3236531.87	1254963.55	40°01'48.612"N	104°39'19.152"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#07 WILLOW 22-17-2L (185'FSL & 1196'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	0.71°

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WILLOW 22-17-2L PWP (REV-A.0)

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Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (205 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	150.767	0.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
17.00	0.000	150.767	17.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	Tie On
117.00†	0.000	150.767	117.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
217.00†	0.000	150.767	217.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
317.00†	0.000	150.767	317.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
417.00†	0.000	150.767	417.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
517.00†	0.000	150.767	517.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
617.00†	0.000	150.767	617.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
717.00†	0.000	150.767	717.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	
800.00	0.000	150.767	800.00	0.00	0.00	0.00	40°01'48.612"N	104°39'19.152"W	0.00	End of Tangent
817.00†	0.340	150.767	817.00	-0.04	-0.04	0.02	40°01'48.612"N	104°39'19.152"W	2.00	
917.00†	2.340	150.767	916.97	-2.07	-2.08	1.17	40°01'48.591"N	104°39'19.137"W	2.00	
929.97	2.599	150.767	929.93	-2.55	-2.57	1.44	40°01'48.587"N	104°39'19.133"W	2.00	End of Build
1017.00†	2.599	150.767	1016.87	-5.97	-6.02	3.37	40°01'48.553"N	104°39'19.109"W	0.00	
1117.00†	2.599	150.767	1116.76	-9.90	-9.97	5.58	40°01'48.513"N	104°39'19.080"W	0.00	
1217.00†	2.599	150.767	1216.66	-13.83	-13.93	7.80	40°01'48.474"N	104°39'19.052"W	0.00	
1317.00†	2.599	150.767	1316.56	-17.76	-17.89	10.01	40°01'48.435"N	104°39'19.023"W	0.00	
1417.00†	2.599	150.767	1416.45	-21.69	-21.85	12.23	40°01'48.396"N	104°39'18.995"W	0.00	
1517.00†	2.599	150.767	1516.35	-25.62	-25.81	14.44	40°01'48.357"N	104°39'18.966"W	0.00	
1617.00†	2.599	150.767	1616.25	-29.55	-29.76	16.66	40°01'48.318"N	104°39'18.938"W	0.00	
1717.00†	2.599	150.767	1716.15	-33.48	-33.72	18.87	40°01'48.279"N	104°39'18.909"W	0.00	
1817.00†	2.599	150.767	1816.04	-37.41	-37.68	21.09	40°01'48.240"N	104°39'18.881"W	0.00	
1917.00†	2.599	150.767	1915.94	-41.34	-41.64	23.30	40°01'48.201"N	104°39'18.852"W	0.00	
2017.00†	2.599	150.767	2015.84	-45.27	-45.59	25.52	40°01'48.161"N	104°39'18.824"W	0.00	
2117.00†	2.599	150.767	2115.73	-49.20	-49.55	27.73	40°01'48.122"N	104°39'18.796"W	0.00	
2217.00†	2.599	150.767	2215.63	-53.13	-53.51	29.95	40°01'48.083"N	104°39'18.767"W	0.00	
2317.00†	2.599	150.767	2315.53	-57.06	-57.47	32.16	40°01'48.044"N	104°39'18.739"W	0.00	
2417.00†	2.599	150.767	2415.43	-60.99	-61.42	34.37	40°01'48.005"N	104°39'18.710"W	0.00	
2517.00†	2.599	150.767	2515.32	-64.92	-65.38	36.59	40°01'47.966"N	104°39'18.682"W	0.00	
2617.00†	2.599	150.767	2615.22	-68.85	-69.34	38.80	40°01'47.927"N	104°39'18.653"W	0.00	
2717.00†	2.599	150.767	2715.12	-72.78	-73.30	41.02	40°01'47.888"N	104°39'18.625"W	0.00	
2817.00†	2.599	150.767	2815.01	-76.71	-77.25	43.23	40°01'47.849"N	104°39'18.596"W	0.00	
2917.00†	2.599	150.767	2914.91	-80.64	-81.21	45.45	40°01'47.809"N	104°39'18.568"W	0.00	
3017.00†	2.599	150.767	3014.81	-84.57	-85.17	47.66	40°01'47.770"N	104°39'18.539"W	0.00	
3117.00†	2.599	150.767	3114.71	-88.50	-89.13	49.88	40°01'47.731"N	104°39'18.511"W	0.00	
3217.00†	2.599	150.767	3214.60	-92.43	-93.09	52.09	40°01'47.692"N	104°39'18.482"W	0.00	

WELLPATH DATA (205 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3317.00†	2.599	150.767	3314.50	-96.36	-97.04	54.31	40°01'47.653"N	104°39'18.454"W	0.00	
3417.00†	2.599	150.767	3414.40	-100.29	-101.00	56.52	40°01'47.614"N	104°39'18.425"W	0.00	
3517.00†	2.599	150.767	3514.29	-104.22	-104.96	58.74	40°01'47.575"N	104°39'18.397"W	0.00	
3617.00†	2.599	150.767	3614.19	-108.15	-108.92	60.95	40°01'47.536"N	104°39'18.368"W	0.00	
3717.00†	2.599	150.767	3714.09	-112.08	-112.87	63.17	40°01'47.497"N	104°39'18.340"W	0.00	
3817.00†	2.599	150.767	3813.98	-116.01	-116.83	65.38	40°01'47.457"N	104°39'18.311"W	0.00	
3917.00†	2.599	150.767	3913.88	-119.94	-120.79	67.60	40°01'47.418"N	104°39'18.283"W	0.00	
4017.00†	2.599	150.767	4013.78	-123.87	-124.75	69.81	40°01'47.379"N	104°39'18.255"W	0.00	
4117.00†	2.599	150.767	4113.68	-127.80	-128.70	72.03	40°01'47.340"N	104°39'18.226"W	0.00	

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (205 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	2.599	150.767	4213.57	-131.73	-132.66	74.24	40°01'47.301"N	104°39'18.198"W	0.00	
4317.00†	2.599	150.767	4313.47	-135.66	-136.62	76.46	40°01'47.262"N	104°39'18.169"W	0.00	
4417.00†	2.599	150.767	4413.37	-139.59	-140.58	78.67	40°01'47.223"N	104°39'18.141"W	0.00	
4517.00†	2.599	150.767	4513.26	-143.52	-144.54	80.89	40°01'47.184"N	104°39'18.112"W	0.00	
4617.00†	2.599	150.767	4613.16	-147.45	-148.49	83.10	40°01'47.145"N	104°39'18.084"W	0.00	
4717.00†	2.599	150.767	4713.06	-151.38	-152.45	85.32	40°01'47.105"N	104°39'18.055"W	0.00	
4817.00†	2.599	150.767	4812.96	-155.31	-156.41	87.53	40°01'47.066"N	104°39'18.027"W	0.00	
4917.00†	2.599	150.767	4912.85	-159.24	-160.37	89.75	40°01'47.027"N	104°39'17.998"W	0.00	
5017.00†	2.599	150.767	5012.75	-163.17	-164.32	91.96	40°01'46.988"N	104°39'17.970"W	0.00	
5117.00†	2.599	150.767	5112.65	-167.10	-168.28	94.18	40°01'46.949"N	104°39'17.941"W	0.00	
5217.00†	2.599	150.767	5212.54	-171.03	-172.24	96.39	40°01'46.910"N	104°39'17.913"W	0.00	
5317.00†	2.599	150.767	5312.44	-174.96	-176.20	98.61	40°01'46.871"N	104°39'17.884"W	0.00	
5417.00†	2.599	150.767	5412.34	-178.89	-180.15	100.82	40°01'46.832"N	104°39'17.856"W	0.00	
5517.00†	2.599	150.767	5512.24	-182.82	-184.11	103.04	40°01'46.793"N	104°39'17.827"W	0.00	
5617.00†	2.599	150.767	5612.13	-186.74	-188.07	105.25	40°01'46.753"N	104°39'17.799"W	0.00	
5717.00†	2.599	150.767	5712.03	-190.67	-192.03	107.46	40°01'46.714"N	104°39'17.771"W	0.00	
5817.00†	2.599	150.767	5811.93	-194.60	-195.99	109.68	40°01'46.675"N	104°39'17.742"W	0.00	
5917.00†	2.599	150.767	5911.82	-198.53	-199.94	111.89	40°01'46.636"N	104°39'17.714"W	0.00	
6017.00†	2.599	150.767	6011.72	-202.46	-203.90	114.11	40°01'46.597"N	104°39'17.685"W	0.00	
6117.00†	2.599	150.767	6111.62	-206.39	-207.86	116.32	40°01'46.558"N	104°39'17.657"W	0.00	
6217.00†	2.599	150.767	6211.52	-210.32	-211.82	118.54	40°01'46.519"N	104°39'17.628"W	0.00	
6317.00†	2.599	150.767	6311.41	-214.25	-215.77	120.75	40°01'46.480"N	104°39'17.600"W	0.00	
6417.00†	2.599	150.767	6411.31	-218.18	-219.73	122.97	40°01'46.441"N	104°39'17.571"W	0.00	
6517.00†	2.599	150.767	6511.21	-222.11	-223.69	125.18	40°01'46.401"N	104°39'17.543"W	0.00	
6617.00†	2.599	150.767	6611.10	-226.04	-227.65	127.40	40°01'46.362"N	104°39'17.514"W	0.00	
6717.00†	2.599	150.767	6711.00	-229.97	-231.60	129.61	40°01'46.323"N	104°39'17.486"W	0.00	
6743.69	2.599	150.767	6737.66	-231.02	-232.66	130.20	40°01'46.313"N	104°39'17.478"W	0.00	End of Tangent
6817.00†	5.935	12.404	6810.86	-228.75	-230.41	131.83	40°01'46.335"N	104°39'17.457"W	11.00	
6917.00†	16.844	4.273	6908.75	-209.16	-210.85	134.03	40°01'46.528"N	104°39'17.429"W	11.00	
7017.00†	27.824	2.477	7001.11	-171.26	-172.97	136.12	40°01'46.903"N	104°39'17.402"W	11.00	
7117.00†	38.815	1.647	7084.54	-116.43	-118.15	138.04	40°01'47.444"N	104°39'17.377"W	11.00	
7217.00†	49.810	1.140	7155.98	-46.68	-48.43	139.71	40°01'48.133"N	104°39'17.356"W	11.00	
7317.00†	60.805	0.776	7212.81	35.41	33.66	141.06	40°01'48.945"N	104°39'17.339"W	11.00	
7417.00†	71.802	0.483	7252.94	126.84	125.08	142.06	40°01'49.848"N	104°39'17.326"W	11.00	
7517.00†	82.799	0.226	7274.89	224.24	222.48	142.65	40°01'50.811"N	104°39'17.318"W	11.00	
7582.48	90.000	0.065		289.54	287.79	142.82	40°01'51.456"N	104°39'17.316"W	11.00	End of 3D Arc

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
			7279.00†							
7617.00†	90.000	0.065	7279.00	324.07	322.31	142.86	40°01'51.797"N	104°39'17.315"W	0.00	
7717.00†	90.000	0.065	7279.00	424.06	422.31	142.97	40°01'52.785"N	104°39'17.314"W	0.00	
7817.00†	90.000	0.065	7279.00	524.05	522.31	143.08	40°01'53.774"N	104°39'17.313"W	0.00	
7917.00†	90.000	0.065	7279.00	624.05	622.31	143.20	40°01'54.762"N	104°39'17.311"W	0.00	
8017.00†	90.000	0.065	7279.00	724.04	722.31	143.31	40°01'55.750"N	104°39'17.310"W	0.00	
8117.00†	90.000	0.065	7279.00	824.03	822.31	143.42	40°01'56.738"N	104°39'17.308"W	0.00	
8217.00†	90.000	0.065	7279.00	924.03	922.31	143.54	40°01'57.727"N	104°39'17.307"W	0.00	
8317.00†	90.000	0.065	7279.00	1024.02	1022.31	143.65	40°01'58.715"N	104°39'17.305"W	0.00	
8417.00†	90.000	0.065	7279.00	1124.01	1122.31	143.76	40°01'59.703"N	104°39'17.304"W	0.00	

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (205 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	0.065	7279.00	1224.01	1222.31	143.87	40°02'00.691"N	104°39'17.302"W	0.00	
8617.00†	90.000	0.065	7279.00	1324.00	1322.31	143.99	40°02'01.679"N	104°39'17.301"W	0.00	
8717.00†	90.000	0.065	7279.00	1424.00	1422.31	144.10	40°02'02.668"N	104°39'17.299"W	0.00	
8817.00†	90.000	0.065	7279.00	1523.99	1522.31	144.21	40°02'03.656"N	104°39'17.298"W	0.00	
8917.00†	90.000	0.065	7279.00	1623.98	1622.31	144.33	40°02'04.644"N	104°39'17.297"W	0.00	
9017.00†	90.000	0.065	7279.00	1723.98	1722.31	144.44	40°02'05.632"N	104°39'17.295"W	0.00	
9117.00†	90.000	0.065	7279.00	1823.97	1822.31	144.55	40°02'06.621"N	104°39'17.294"W	0.00	
9217.00†	90.000	0.065	7279.00	1923.96	1922.31	144.67	40°02'07.609"N	104°39'17.292"W	0.00	
9317.00†	90.000	0.065	7279.00	2023.96	2022.31	144.78	40°02'08.597"N	104°39'17.291"W	0.00	
9417.00†	90.000	0.065	7279.00	2123.95	2122.31	144.89	40°02'09.585"N	104°39'17.289"W	0.00	
9517.00†	90.000	0.065	7279.00	2223.94	2222.31	145.01	40°02'10.573"N	104°39'17.288"W	0.00	
9617.00†	90.000	0.065	7279.00	2323.94	2322.31	145.12	40°02'11.562"N	104°39'17.286"W	0.00	
9717.00†	90.000	0.065	7279.00	2423.93	2422.31	145.23	40°02'12.550"N	104°39'17.285"W	0.00	
9817.00†	90.000	0.065	7279.00	2523.92	2522.31	145.34	40°02'13.538"N	104°39'17.283"W	0.00	
9917.00†	90.000	0.065	7279.00	2623.92	2622.31	145.46	40°02'14.526"N	104°39'17.282"W	0.00	
10017.00†	90.000	0.065	7279.00	2723.91	2722.31	145.57	40°02'15.515"N	104°39'17.280"W	0.00	
10117.00†	90.000	0.065	7279.00	2823.91	2822.31	145.68	40°02'16.503"N	104°39'17.279"W	0.00	
10217.00†	90.000	0.065	7279.00	2923.90	2922.31	145.80	40°02'17.491"N	104°39'17.278"W	0.00	
10317.00†	90.000	0.065	7279.00	3023.89	3022.31	145.91	40°02'18.479"N	104°39'17.276"W	0.00	
10417.00†	90.000	0.065	7279.00	3123.89	3122.31	146.02	40°02'19.467"N	104°39'17.275"W	0.00	
10517.00†	90.000	0.065	7279.00	3223.88	3222.31	146.14	40°02'20.456"N	104°39'17.273"W	0.00	
10617.00†	90.000	0.065	7279.00	3323.87	3322.31	146.25	40°02'21.444"N	104°39'17.272"W	0.00	
10717.00†	90.000	0.065	7279.00	3423.87	3422.31	146.36	40°02'22.432"N	104°39'17.270"W	0.00	
10817.00†	90.000	0.065	7279.00	3523.86	3522.31	146.47	40°02'23.420"N	104°39'17.269"W	0.00	
10917.00†	90.000	0.065	7279.00	3623.85	3622.31	146.59	40°02'24.409"N	104°39'17.267"W	0.00	
11017.00†	90.000	0.065	7279.00	3723.85	3722.31	146.70	40°02'25.397"N	104°39'17.266"W	0.00	
11117.00†	90.000	0.065	7279.00	3823.84	3822.31	146.81	40°02'26.385"N	104°39'17.264"W	0.00	
11217.00†	90.000	0.065	7279.00	3923.83	3922.31	146.93	40°02'27.373"N	104°39'17.263"W	0.00	
11317.00†	90.000	0.065	7279.00	4023.83	4022.31	147.04	40°02'28.362"N	104°39'17.261"W	0.00	
11417.00†	90.000	0.065	7279.00	4123.82	4122.31	147.15	40°02'29.350"N	104°39'17.260"W	0.00	
11517.00†	90.000	0.065	7279.00	4223.82	4222.31	147.27	40°02'30.338"N	104°39'17.259"W	0.00	
11617.00†	90.000	0.065	7279.00	4323.81	4322.31	147.38	40°02'31.326"N	104°39'17.257"W	0.00	
11717.00†	90.000	0.065	7279.00	4423.80	4422.31	147.49	40°02'32.314"N	104°39'17.256"W	0.00	
11817.00†	90.000	0.065	7279.00	4523.80	4522.31	147.60	40°02'33.303"N	104°39'17.254"W	0.00	
11917.00†	90.000	0.065	7279.00	4623.79	4622.31	147.72	40°02'34.291"N	104°39'17.253"W	0.00	
12017.00†	90.000	0.065	7279.00	4723.78	4722.31	147.83	40°02'35.279"N	104°39'17.251"W	0.00	

WELLPATH DATA (205 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	0.065	7279.00	4823.78	4822.31	147.94	40°02'36.267"N	104°39'17.250"W	0.00	
12217.00†	90.000	0.065	7279.00	4923.77	4922.31	148.06	40°02'37.256"N	104°39'17.248"W	0.00	
12317.00†	90.000	0.065	7279.00	5023.76	5022.31	148.17	40°02'38.244"N	104°39'17.247"W	0.00	
12417.00†	90.000	0.065	7279.00	5123.76	5122.31	148.28	40°02'39.232"N	104°39'17.245"W	0.00	
12517.00†	90.000	0.065	7279.00	5223.75	5222.31	148.40	40°02'40.220"N	104°39'17.244"W	0.00	
12617.00†	90.000	0.065	7279.00	5323.75	5322.31	148.51	40°02'41.208"N	104°39'17.242"W	0.00	
12717.00†	90.000	0.065	7279.00	5423.74	5422.31	148.62	40°02'42.197"N	104°39'17.241"W	0.00	
12817.00†	90.000	0.065	7279.00	5523.73	5522.31	148.73	40°02'43.185"N	104°39'17.240"W	0.00	
12917.00†	90.000	0.065	7279.00	5623.73	5622.31	148.85	40°02'44.173"N	104°39'17.238"W	0.00	

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (205 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	0.065	7279.00	5723.72	5722.31	148.96	40°02'45.161"N	104°39'17.237"W	0.00	
13117.00†	90.000	0.065	7279.00	5823.71	5822.31	149.07	40°02'46.150"N	104°39'17.235"W	0.00	
13217.00†	90.000	0.065	7279.00	5923.71	5922.31	149.19	40°02'47.138"N	104°39'17.234"W	0.00	
13317.00†	90.000	0.065	7279.00	6023.70	6022.31	149.30	40°02'48.126"N	104°39'17.232"W	0.00	
13417.00†	90.000	0.065	7279.00	6123.69	6122.31	149.41	40°02'49.114"N	104°39'17.231"W	0.00	
13517.00†	90.000	0.065	7279.00	6223.69	6222.31	149.53	40°02'50.102"N	104°39'17.229"W	0.00	
13617.00†	90.000	0.065	7279.00	6323.68	6322.31	149.64	40°02'51.091"N	104°39'17.228"W	0.00	
13717.00†	90.000	0.065	7279.00	6423.67	6422.31	149.75	40°02'52.079"N	104°39'17.226"W	0.00	
13817.00†	90.000	0.065	7279.00	6523.67	6522.31	149.86	40°02'53.067"N	104°39'17.225"W	0.00	
13917.00†	90.000	0.065	7279.00	6623.66	6622.31	149.98	40°02'54.055"N	104°39'17.223"W	0.00	
14017.00†	90.000	0.065	7279.00	6723.66	6722.31	150.09	40°02'55.044"N	104°39'17.222"W	0.00	
14117.00†	90.000	0.065	7279.00	6823.65	6822.31	150.20	40°02'56.032"N	104°39'17.221"W	0.00	
14217.00†	90.000	0.065	7279.00	6923.64	6922.31	150.32	40°02'57.020"N	104°39'17.219"W	0.00	
14317.00†	90.000	0.065	7279.00	7023.64	7022.31	150.43	40°02'58.008"N	104°39'17.218"W	0.00	
14417.00†	90.000	0.065	7279.00	7123.63	7122.31	150.54	40°02'58.996"N	104°39'17.216"W	0.00	
14517.00†	90.000	0.065	7279.00	7223.62	7222.31	150.66	40°02'59.985"N	104°39'17.215"W	0.00	
14617.00†	90.000	0.065	7279.00	7323.62	7322.31	150.77	40°03'00.973"N	104°39'17.213"W	0.00	
14717.00†	90.000	0.065	7279.00	7423.61	7422.31	150.88	40°03'01.961"N	104°39'17.212"W	0.00	
14817.00†	90.000	0.065	7279.00	7523.60	7522.31	150.99	40°03'02.949"N	104°39'17.210"W	0.00	
14917.00†	90.000	0.065	7279.00	7623.60	7622.31	151.11	40°03'03.938"N	104°39'17.209"W	0.00	
15017.00†	90.000	0.065	7279.00	7723.59	7722.31	151.22	40°03'04.926"N	104°39'17.207"W	0.00	
15117.00†	90.000	0.065	7279.00	7823.58	7822.31	151.33	40°03'05.914"N	104°39'17.206"W	0.00	
15217.00†	90.000	0.065	7279.00	7923.58	7922.31	151.45	40°03'06.902"N	104°39'17.204"W	0.00	
15317.00†	90.000	0.065	7279.00	8023.57	8022.31	151.56	40°03'07.891"N	104°39'17.203"W	0.00	
15417.00†	90.000	0.065	7279.00	8123.57	8122.31	151.67	40°03'08.879"N	104°39'17.202"W	0.00	
15517.00†	90.000	0.065	7279.00	8223.56	8222.31	151.79	40°03'09.867"N	104°39'17.200"W	0.00	
15617.00†	90.000	0.065	7279.00	8323.55	8322.31	151.90	40°03'10.855"N	104°39'17.199"W	0.00	
15717.00†	90.000	0.065	7279.00	8423.55	8422.31	152.01	40°03'11.843"N	104°39'17.197"W	0.00	
15817.00†	90.000	0.065	7279.00	8523.54	8522.31	152.12	40°03'12.832"N	104°39'17.196"W	0.00	
15917.00†	90.000	0.065	7279.00	8623.53	8622.31	152.24	40°03'13.820"N	104°39'17.194"W	0.00	
16017.00†	90.000	0.065	7279.00	8723.53	8722.31	152.35	40°03'14.808"N	104°39'17.193"W	0.00	
16117.00†	90.000	0.065	7279.00	8823.52	8822.31	152.46	40°03'15.796"N	104°39'17.191"W	0.00	
16217.00†	90.000	0.065	7279.00	8923.51	8922.31	152.58	40°03'16.785"N	104°39'17.190"W	0.00	
16317.00†	90.000	0.065	7279.00	9023.51	9022.31	152.69	40°03'17.773"N	104°39'17.188"W	0.00	
16417.00†	90.000	0.065	7279.00	9123.50	9122.31	152.80	40°03'18.761"N	104°39'17.187"W	0.00	
16517.00†	90.000	0.065	7279.00	9223.50	9222.31	152.92	40°03'19.749"N	104°39'17.185"W	0.00	

WELLPATH DATA (205 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	0.065	7279.00	9323.49	9322.31	153.03	40°03'20.737"N	104°39'17.184"W	0.00	
16717.00†	90.000	0.065	7279.00	9423.48	9422.31	153.14	40°03'21.726"N	104°39'17.183"W	0.00	
16817.00†	90.000	0.065	7279.00	9523.48	9522.31	153.25	40°03'22.714"N	104°39'17.181"W	0.00	
16917.00†	90.000	0.065	7279.00	9623.47	9622.31	153.37	40°03'23.702"N	104°39'17.180"W	0.00	
17017.00†	90.000	0.065	7279.00	9723.46	9722.31	153.48	40°03'24.690"N	104°39'17.178"W	0.00	
17117.00†	90.000	0.065	7279.00	9823.46	9822.31	153.59	40°03'25.679"N	104°39'17.177"W	0.00	
17217.00†	90.000	0.065	7279.00	9923.45	9922.31	153.71	40°03'26.667"N	104°39'17.175"W	0.00	
17317.00†	90.000	0.065	7279.00	10023.44	10022.31	153.82	40°03'27.655"N	104°39'17.174"W	0.00	
17417.00†	90.000	0.065	7279.00	10123.44	10122.31	153.93	40°03'28.643"N	104°39'17.172"W	0.00	

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

WELLPATH DATA (205 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	0.065	7279.00	10223.43	10222.31	154.05	40°03'29.631"N	104°39'17.171"W	0.00	
17617.00†	90.000	0.065	7279.00	10323.42	10322.31	154.16	40°03'30.620"N	104°39'17.169"W	0.00	
17717.00†	90.000	0.065	7279.00	10423.42	10422.31	154.27	40°03'31.608"N	104°39'17.168"W	0.00	
17817.00†	90.000	0.065	7279.00	10523.41	10522.31	154.38	40°03'32.596"N	104°39'17.166"W	0.00	
17917.00†	90.000	0.065	7279.00	10623.41	10622.31	154.50	40°03'33.584"N	104°39'17.165"W	0.00	
18017.00†	90.000	0.065	7279.00	10723.40	10722.31	154.61	40°03'34.573"N	104°39'17.164"W	0.00	
18117.00†	90.000	0.065	7279.00	10823.39	10822.31	154.72	40°03'35.561"N	104°39'17.162"W	0.00	
18217.00†	90.000	0.065	7279.00	10923.39	10922.30	154.84	40°03'36.549"N	104°39'17.161"W	0.00	
18317.00†	90.000	0.065	7279.00	11023.38	11022.30	154.95	40°03'37.537"N	104°39'17.159"W	0.00	
18417.00†	90.000	0.065	7279.00	11123.37	11122.30	155.06	40°03'38.525"N	104°39'17.158"W	0.00	
18517.00†	90.000	0.065	7279.00	11223.37	11222.30	155.18	40°03'39.514"N	104°39'17.156"W	0.00	
18617.00†	90.000	0.065	7279.00	11323.36	11322.30	155.29	40°03'40.502"N	104°39'17.155"W	0.00	
18717.00†	90.000	0.065	7279.00	11423.35	11422.30	155.40	40°03'41.490"N	104°39'17.153"W	0.00	
18817.00†	90.000	0.065	7279.00	11523.35	11522.30	155.51	40°03'42.478"N	104°39'17.152"W	0.00	
18917.00†	90.000	0.065	7279.00	11623.34	11622.30	155.63	40°03'43.467"N	104°39'17.150"W	0.00	
19017.00†	90.000	0.065	7279.00	11723.33	11722.30	155.74	40°03'44.455"N	104°39'17.149"W	0.00	
19117.00†	90.000	0.065	7279.00	11823.33	11822.30	155.85	40°03'45.443"N	104°39'17.147"W	0.00	
19217.00†	90.000	0.065	7279.00	11923.32	11922.30	155.97	40°03'46.431"N	104°39'17.146"W	0.00	
19317.00†	90.000	0.065	7279.00	12023.32	12022.30	156.08	40°03'47.419"N	104°39'17.145"W	0.00	
19417.00†	90.000	0.065	7279.00	12123.31	12122.30	156.19	40°03'48.408"N	104°39'17.143"W	0.00	
19517.00†	90.000	0.065	7279.00	12223.30	12222.30	156.31	40°03'49.396"N	104°39'17.142"W	0.00	
19617.00†	90.000	0.065	7279.00	12323.30	12322.30	156.42	40°03'50.384"N	104°39'17.140"W	0.00	
19717.00†	90.000	0.065	7279.00	12423.29	12422.30	156.53	40°03'51.372"N	104°39'17.139"W	0.00	
19817.00†	90.000	0.065	7279.00	12523.28	12522.30	156.64	40°03'52.361"N	104°39'17.137"W	0.00	
19879.18	90.000	0.065	7279.00 ²	12585.46	12584.49	156.72	40°03'52.975"N	104°39'17.136"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WILLOW 22-17-2L PWB Ref Wellpath: WILLOW 22-17-2L 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	1499.37	0.00	0.00	-25.13	14.06

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L 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	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.10-T01N-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.15-T01N-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.22-T01N-R65W		0.00	0.00	-148.42	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
2) WILLOW 22-17-2L BHL ON PLAT (2178'FSL & 1338'FWL,SEC.10)	19879.18	7279.00	12584.49	156.72	3236568.70	1267548.49	40°03'52.975"N	104°39'17.136"W	point
1) WILLOW 22-17-2L LP ON PLAT (470'FSL & 1338'FWL,SEC.22)	7582.48	7279.00	287.79	142.82	3236671.94	1255252.68	40°01'51.456"N	104°39'17.316"W	point

SURVEY PROGRAM - Ref Wellbore: WILLOW 22-17-2L PWB Ref Wellpath: WILLOW 22-17-2L 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 22-17-2L PWB
1500.00	19879.18	BHI AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-17-2L PWB

Planned Wellpath Report

WILLOW 22-17-2L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#07 WILLOW 22-17-2L (185'FSL & 1196'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-17-2L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-17-2L PWB
Facility	SEC.22-T01N-R65W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	150.767	17.00	Tie On
800.00	0.000	150.767	800.00	End of Tangent
929.97	2.599	150.767	929.93	End of Build
6743.69	2.599	150.767	6737.66	End of Tangent
7582.48	90.000	0.065	7279.00	End of 3D Arc
19879.18	90.000	0.065	7279.00	End of Tangent