

Location:	COLORADO	Slot:	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL, SEC. 22)
Field:	WELD COUNTY (NAD83, TRUE NORTH)	Well:	WILLOW 22-15-3L
Facility:	SEC. 22-T01N-R65W	Wellbore:	WILLOW 22-15-3L PWB
Plot reference wellpath is WILLOW 22-15-3L 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#09 WILLOW 22-15-3L (185'FSL & 1246'FWL, SEC. 22)): 0 feet		Created by: robais01 on 2019-02-27	
Coordinates are in feet referenced to Slot		Database: WA DENVER	

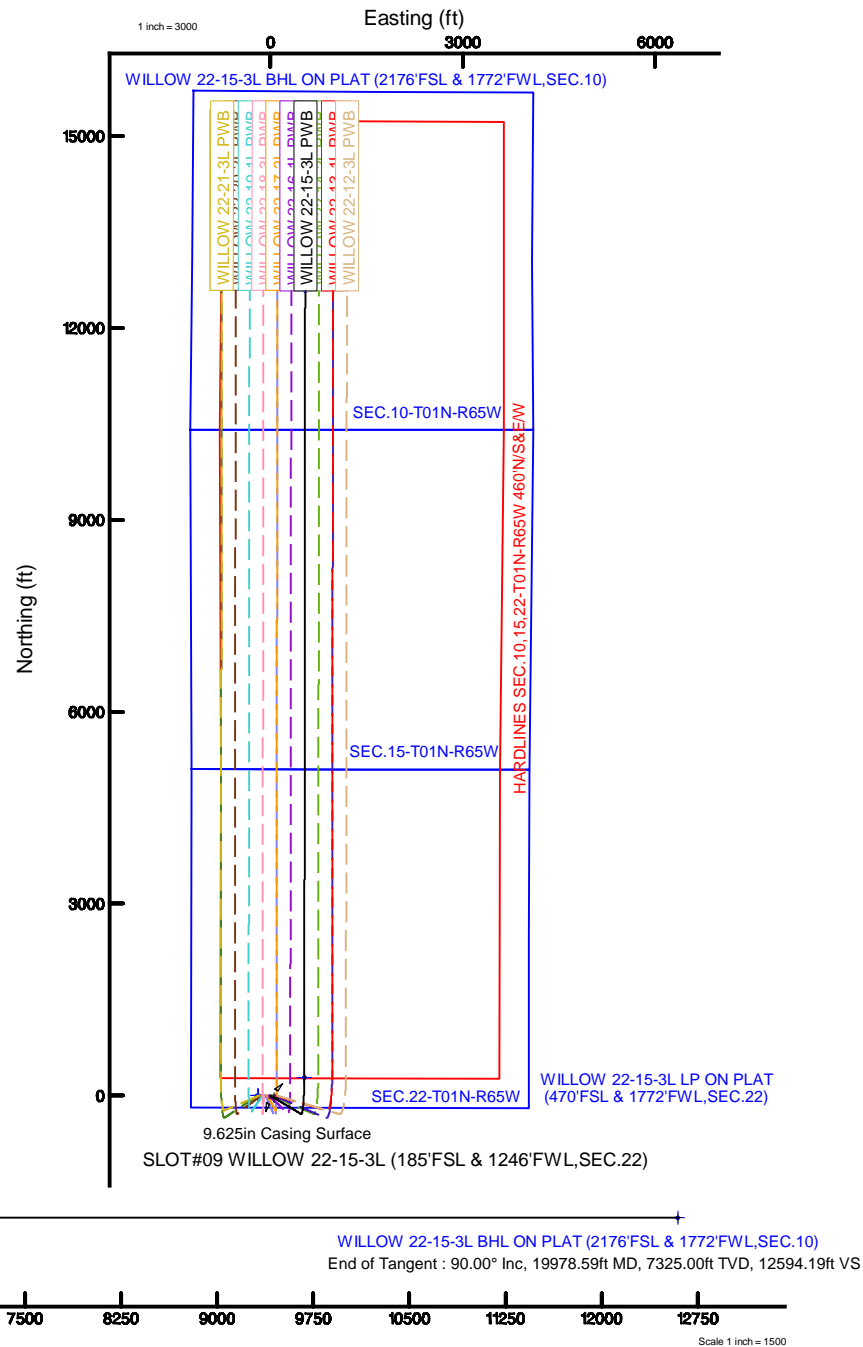
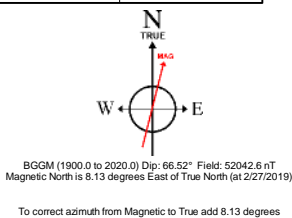
Targets								
Name	MD (t)	TVD (t)	Local N (t)	Local E (t)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
HARDLINES SEC.10.15-22-TOIN-R65W 460N5&EW		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.10-TOIN-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.15-TOIN-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.22-TOIN-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
SEC.22-TOIN-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W
WILLOW 22-15-3L BHL ON PLAT (1716FSL & 1772FWSL SEC.10)	19978.59	7325.00	12562.60	540.23	3237002.58	1267550.73	40°03'52.956"N	104°39'11.556"W
WILLOW 22-15-3L LP ON PLAT (470FSL & 1772FWSL SEC.22)	7680.14	7325.00	284.15	526.47	3237105.99	125253.17	40°01'51.420"N	104°39'11.736"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	121.114	17.00	0.00	0.00	0.00	0.00
End of Tangent	700.00	0.000	121.114	700.00	0.00	0.00	0.00	0.00
End of Build	970.30	5.406	121.114	969.90	-6.58	10.91	2.00	-6.11
End of Tangent	6752.28	5.406	121.114	6726.16	-288.08	477.28	0.00	-267.34
End of 3D Arc	7680.14	90.000	0.064	7325.00	284.15	526.47	10.00	306.47
End of Tangent	19978.59	90.000	0.064	7325.00	12582.60	540.23	0.00	12594.19

Depth (ft)
Scale 1 inch = 1000
5250
6000

W E
N True
S MAG

BGM (1900.0 to 2020.0) Dip: 66.52° Field: 52042.8
Magnetic North is 8.13 degrees East of True North (at 2/27)



Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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 1:37:51 PM
Convergence at slot	0.55° East	Database/Source file	WA DENVER/WILLOW_22-15-3L_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	198.83	3236582.27	1254964.03	40°01'48.612"N	104°39'18.504"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#09 WILLOW 22-15-3L (185'FSL & 1246'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	2.46°

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Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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	121.114	0.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
17.00	0.000	121.114	17.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	Tie On
117.00†	0.000	121.114	117.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
217.00†	0.000	121.114	217.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
317.00†	0.000	121.114	317.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
417.00†	0.000	121.114	417.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
517.00†	0.000	121.114	517.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
617.00†	0.000	121.114	617.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	
700.00	0.000	121.114	700.00	0.00	0.00	0.00	40°01'48.612"N	104°39'18.504"W	0.00	End of Tangent
717.00†	0.340	121.114	717.00	-0.02	-0.03	0.04	40°01'48.612"N	104°39'18.503"W	2.00	
817.00†	2.340	121.114	816.97	-1.15	-1.23	2.05	40°01'48.600"N	104°39'18.478"W	2.00	
917.00†	4.340	121.114	916.79	-3.94	-4.24	7.03	40°01'48.570"N	104°39'18.414"W	2.00	
970.30	5.406	121.114	969.90	-6.11	-6.58	10.91	40°01'48.547"N	104°39'18.364"W	2.00	End of Build
1017.00†	5.406	121.114	1016.39	-8.22	-8.86	14.68	40°01'48.524"N	104°39'18.315"W	0.00	
1117.00†	5.406	121.114	1115.95	-12.74	-13.73	22.74	40°01'48.476"N	104°39'18.212"W	0.00	
1217.00†	5.406	121.114	1215.50	-17.26	-18.59	30.81	40°01'48.428"N	104°39'18.108"W	0.00	
1317.00†	5.406	121.114	1315.06	-21.77	-23.46	38.87	40°01'48.380"N	104°39'18.004"W	0.00	
1417.00†	5.406	121.114	1414.61	-26.29	-28.33	46.94	40°01'48.332"N	104°39'17.901"W	0.00	
1517.00†	5.406	121.114	1514.17	-30.81	-33.20	55.01	40°01'48.284"N	104°39'17.797"W	0.00	
1617.00†	5.406	121.114	1613.72	-35.33	-38.07	63.07	40°01'48.236"N	104°39'17.693"W	0.00	
1717.00†	5.406	121.114	1713.28	-39.85	-42.94	71.14	40°01'48.188"N	104°39'17.590"W	0.00	
1817.00†	5.406	121.114	1812.83	-44.36	-47.81	79.20	40°01'48.140"N	104°39'17.486"W	0.00	
1917.00†	5.406	121.114	1912.39	-48.88	-52.67	87.27	40°01'48.091"N	104°39'17.382"W	0.00	
2017.00†	5.406	121.114	2011.94	-53.40	-57.54	95.34	40°01'48.043"N	104°39'17.278"W	0.00	
2117.00†	5.406	121.114	2111.50	-57.92	-62.41	103.40	40°01'47.995"N	104°39'17.175"W	0.00	
2217.00†	5.406	121.114	2211.05	-62.44	-67.28	111.47	40°01'47.947"N	104°39'17.071"W	0.00	
2317.00†	5.406	121.114	2310.61	-66.95	-72.15	119.53	40°01'47.899"N	104°39'16.967"W	0.00	
2417.00†	5.406	121.114	2410.16	-71.47	-77.02	127.60	40°01'47.851"N	104°39'16.864"W	0.00	
2517.00†	5.406	121.114	2509.72	-75.99	-81.88	135.66	40°01'47.803"N	104°39'16.760"W	0.00	
2617.00†	5.406	121.114	2609.27	-80.51	-86.75	143.73	40°01'47.755"N	104°39'16.656"W	0.00	
2717.00†	5.406	121.114	2708.83	-85.03	-91.62	151.80	40°01'47.707"N	104°39'16.553"W	0.00	
2817.00†	5.406	121.114	2808.39	-89.54	-96.49	159.86	40°01'47.658"N	104°39'16.449"W	0.00	
2917.00†	5.406	121.114	2907.94	-94.06	-101.36	167.93	40°01'47.610"N	104°39'16.345"W	0.00	
3017.00†	5.406	121.114	3007.50	-98.58	-106.23	175.99	40°01'47.562"N	104°39'16.242"W	0.00	
3117.00†	5.406	121.114	3107.05	-103.10	-111.09	184.06	40°01'47.514"N	104°39'16.138"W	0.00	
3217.00†	5.406	121.114	3206.61	-107.62	-115.96	192.13	40°01'47.466"N	104°39'16.034"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†	5.406	121.114	3306.16	-112.13	-120.83	200.19	40°01'47.418"N	104°39'15.930"W	0.00	
3417.00†	5.406	121.114	3405.72	-116.65	-125.70	208.26	40°01'47.370"N	104°39'15.827"W	0.00	
3517.00†	5.406	121.114	3505.27	-121.17	-130.57	216.32	40°01'47.322"N	104°39'15.723"W	0.00	
3617.00†	5.406	121.114	3604.83	-125.69	-135.44	224.39	40°01'47.274"N	104°39'15.619"W	0.00	
3717.00†	5.406	121.114	3704.38	-130.20	-140.31	232.46	40°01'47.225"N	104°39'15.516"W	0.00	
3817.00†	5.406	121.114	3803.94	-134.72	-145.17	240.52	40°01'47.177"N	104°39'15.412"W	0.00	
3917.00†	5.406	121.114	3903.49	-139.24	-150.04	248.59	40°01'47.129"N	104°39'15.308"W	0.00	
4017.00†	5.406	121.114	4003.05	-143.76	-154.91	256.65	40°01'47.081"N	104°39'15.205"W	0.00	
4117.00†	5.406	121.114	4102.60	-148.28	-159.78	264.72	40°01'47.033"N	104°39'15.101"W	0.00	

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REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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†	5.406	121.114	4202.16	-152.79	-164.65	272.79	40°01'46.985"N	104°39'14.997"W	0.00	
4317.00†	5.406	121.114	4301.71	-157.31	-169.52	280.85	40°01'46.937"N	104°39'14.894"W	0.00	
4417.00†	5.406	121.114	4401.27	-161.83	-174.38	288.92	40°01'46.889"N	104°39'14.790"W	0.00	
4517.00†	5.406	121.114	4500.82	-166.35	-179.25	296.98	40°01'46.841"N	104°39'14.686"W	0.00	
4617.00†	5.406	121.114	4600.38	-170.87	-184.12	305.05	40°01'46.792"N	104°39'14.583"W	0.00	
4717.00†	5.406	121.114	4699.93	-175.38	-188.99	313.11	40°01'46.744"N	104°39'14.479"W	0.00	
4817.00†	5.406	121.114	4799.49	-179.90	-193.86	321.18	40°01'46.696"N	104°39'14.375"W	0.00	
4917.00†	5.406	121.114	4899.04	-184.42	-198.73	329.25	40°01'46.648"N	104°39'14.271"W	0.00	
5017.00†	5.406	121.114	4998.60	-188.94	-203.59	337.31	40°01'46.600"N	104°39'14.168"W	0.00	
5117.00†	5.406	121.114	5098.15	-193.46	-208.46	345.38	40°01'46.552"N	104°39'14.064"W	0.00	
5217.00†	5.406	121.114	5197.71	-197.97	-213.33	353.44	40°01'46.504"N	104°39'13.960"W	0.00	
5317.00†	5.406	121.114	5297.27	-202.49	-218.20	361.51	40°01'46.456"N	104°39'13.857"W	0.00	
5417.00†	5.406	121.114	5396.82	-207.01	-223.07	369.58	40°01'46.408"N	104°39'13.753"W	0.00	
5517.00†	5.406	121.114	5496.38	-211.53	-227.94	377.64	40°01'46.359"N	104°39'13.649"W	0.00	
5617.00†	5.406	121.114	5595.93	-216.05	-232.81	385.71	40°01'46.311"N	104°39'13.546"W	0.00	
5717.00†	5.406	121.114	5695.49	-220.56	-237.67	393.77	40°01'46.263"N	104°39'13.442"W	0.00	
5817.00†	5.406	121.114	5795.04	-225.08	-242.54	401.84	40°01'46.215"N	104°39'13.338"W	0.00	
5917.00†	5.406	121.114	5894.60	-229.60	-247.41	409.91	40°01'46.167"N	104°39'13.235"W	0.00	
6017.00†	5.406	121.114	5994.15	-234.12	-252.28	417.97	40°01'46.119"N	104°39'13.131"W	0.00	
6117.00†	5.406	121.114	6093.71	-238.64	-257.15	426.04	40°01'46.071"N	104°39'13.027"W	0.00	
6217.00†	5.406	121.114	6193.26	-243.15	-262.02	434.10	40°01'46.023"N	104°39'12.924"W	0.00	
6317.00†	5.406	121.114	6292.82	-247.67	-266.88	442.17	40°01'45.975"N	104°39'12.820"W	0.00	
6417.00†	5.406	121.114	6392.37	-252.19	-271.75	450.24	40°01'45.926"N	104°39'12.716"W	0.00	
6517.00†	5.406	121.114	6491.93	-256.71	-276.62	458.30	40°01'45.878"N	104°39'12.612"W	0.00	
6617.00†	5.406	121.114	6591.48	-261.23	-281.49	466.37	40°01'45.830"N	104°39'12.509"W	0.00	
6717.00†	5.406	121.114	6691.04	-265.74	-286.36	474.43	40°01'45.782"N	104°39'12.405"W	0.00	
6752.28	5.406	121.114	6726.16	-267.34	-288.08	477.28	40°01'45.765"N	104°39'12.369"W	0.00	End of Tangent
6817.00†	5.920	51.499	6790.63	-266.61	-287.57	482.51	40°01'45.770"N	104°39'12.301"W	10.00	
6917.00†	14.436	18.422	6889.04	-251.21	-272.50	490.50	40°01'45.919"N	104°39'12.199"W	10.00	
7017.00†	24.110	10.501	6983.34	-218.92	-240.51	498.18	40°01'46.235"N	104°39'12.100"W	10.00	
7117.00†	33.966	6.976	7070.67	-170.72	-192.58	505.32	40°01'46.709"N	104°39'12.008"W	10.00	
7217.00†	43.882	4.900	7148.37	-108.09	-130.16	511.69	40°01'47.326"N	104°39'11.926"W	10.00	
7317.00†	53.824	3.463	7214.09	-32.92	-55.15	517.10	40°01'48.067"N	104°39'11.857"W	10.00	
7417.00†	63.779	2.353	7265.82	52.51	30.17	521.39	40°01'48.910"N	104°39'11.801"W	10.00	
7517.00†	73.741	1.419	7302.01	145.59	123.21	524.43	40°01'49.830"N	104°39'11.762"W	10.00	
7617.00†	83.707	0.576	7321.54	243.51	221.14	526.12	40°01'50.797"N	104°39'11.741"W	10.00	

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7680.14	90.000	0.064	7325.00†	306.47	284.15	526.47	40°01'51.420"N	104°39'11.736"W	10.00	End of 3D Arc
7717.00†	90.000	0.064	7325.00	343.30	321.01	526.51	40°01'51.784"N	104°39'11.735"W	0.00	
7817.00†	90.000	0.064	7325.00	443.22	421.01	526.62	40°01'52.773"N	104°39'11.734"W	0.00	
7917.00†	90.000	0.064	7325.00	543.13	521.01	526.73	40°01'53.761"N	104°39'11.733"W	0.00	
8017.00†	90.000	0.064	7325.00	643.04	621.01	526.85	40°01'54.749"N	104°39'11.731"W	0.00	
8117.00†	90.000	0.064	7325.00	742.95	721.01	526.96	40°01'55.737"N	104°39'11.730"W	0.00	
8217.00†	90.000	0.064	7325.00	842.87	821.01	527.07	40°01'56.725"N	104°39'11.728"W	0.00	
8317.00†	90.000	0.064	7325.00	942.78	921.01	527.18	40°01'57.714"N	104°39'11.727"W	0.00	
8417.00†	90.000	0.064	7325.00	1042.69	1021.01	527.29	40°01'58.702"N	104°39'11.725"W	0.00	

Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L PWB
Facility	SEC.22-T01N-R65W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8517.00†	90.000	0.064	7325.00	1142.61	1121.01	527.41	40°01'59.690"N	104°39'11.724"W	0.00	
8617.00†	90.000	0.064	7325.00	1242.52	1221.01	527.52	40°02'00.678"N	104°39'11.722"W	0.00	
8717.00†	90.000	0.064	7325.00	1342.43	1321.01	527.63	40°02'01.667"N	104°39'11.721"W	0.00	
8817.00†	90.000	0.064	7325.00	1442.34	1421.01	527.74	40°02'02.655"N	104°39'11.719"W	0.00	
8917.00†	90.000	0.064	7325.00	1542.26	1521.01	527.85	40°02'03.643"N	104°39'11.718"W	0.00	
9017.00†	90.000	0.064	7325.00	1642.17	1621.01	527.97	40°02'04.631"N	104°39'11.716"W	0.00	
9117.00†	90.000	0.064	7325.00	1742.08	1721.01	528.08	40°02'05.619"N	104°39'11.715"W	0.00	
9217.00†	90.000	0.064	7325.00	1841.99	1821.01	528.19	40°02'06.608"N	104°39'11.713"W	0.00	
9317.00†	90.000	0.064	7325.00	1941.91	1921.01	528.30	40°02'07.596"N	104°39'11.712"W	0.00	
9417.00†	90.000	0.064	7325.00	2041.82	2021.01	528.41	40°02'08.584"N	104°39'11.711"W	0.00	
9517.00†	90.000	0.064	7325.00	2141.73	2121.01	528.53	40°02'09.572"N	104°39'11.709"W	0.00	
9617.00†	90.000	0.064	7325.00	2241.64	2221.01	528.64	40°02'10.561"N	104°39'11.708"W	0.00	
9717.00†	90.000	0.064	7325.00	2341.56	2321.01	528.75	40°02'11.549"N	104°39'11.706"W	0.00	
9817.00†	90.000	0.064	7325.00	2441.47	2421.01	528.86	40°02'12.537"N	104°39'11.705"W	0.00	
9917.00†	90.000	0.064	7325.00	2541.38	2521.01	528.97	40°02'13.525"N	104°39'11.703"W	0.00	
10017.00†	90.000	0.064	7325.00	2641.30	2621.01	529.08	40°02'14.513"N	104°39'11.702"W	0.00	
10117.00†	90.000	0.064	7325.00	2741.21	2721.01	529.20	40°02'15.502"N	104°39'11.700"W	0.00	
10217.00†	90.000	0.064	7325.00	2841.12	2821.01	529.31	40°02'16.490"N	104°39'11.699"W	0.00	
10317.00†	90.000	0.064	7325.00	2941.03	2921.01	529.42	40°02'17.478"N	104°39'11.697"W	0.00	
10417.00†	90.000	0.064	7325.00	3040.95	3021.01	529.53	40°02'18.466"N	104°39'11.696"W	0.00	
10517.00†	90.000	0.064	7325.00	3140.86	3121.01	529.64	40°02'19.455"N	104°39'11.694"W	0.00	
10617.00†	90.000	0.064	7325.00	3240.77	3221.01	529.76	40°02'20.443"N	104°39'11.693"W	0.00	
10717.00†	90.000	0.064	7325.00	3340.68	3321.01	529.87	40°02'21.431"N	104°39'11.691"W	0.00	
10817.00†	90.000	0.064	7325.00	3440.60	3421.01	529.98	40°02'22.419"N	104°39'11.690"W	0.00	
10917.00†	90.000	0.064	7325.00	3540.51	3521.01	530.09	40°02'23.408"N	104°39'11.689"W	0.00	
11017.00†	90.000	0.064	7325.00	3640.42	3621.01	530.20	40°02'24.396"N	104°39'11.687"W	0.00	
11117.00†	90.000	0.064	7325.00	3740.34	3721.01	530.32	40°02'25.384"N	104°39'11.686"W	0.00	
11217.00†	90.000	0.064	7325.00	3840.25	3821.01	530.43	40°02'26.372"N	104°39'11.684"W	0.00	
11317.00†	90.000	0.064	7325.00	3940.16	3921.01	530.54	40°02'27.360"N	104°39'11.683"W	0.00	
11417.00†	90.000	0.064	7325.00	4040.07	4021.01	530.65	40°02'28.349"N	104°39'11.681"W	0.00	
11517.00†	90.000	0.064	7325.00	4139.99	4121.01	530.76	40°02'29.337"N	104°39'11.680"W	0.00	
11617.00†	90.000	0.064	7325.00	4239.90	4221.01	530.88	40°02'30.325"N	104°39'11.678"W	0.00	
11717.00†	90.000	0.064	7325.00	4339.81	4321.01	530.99	40°02'31.313"N	104°39'11.677"W	0.00	
11817.00†	90.000	0.064	7325.00	4439.72	4421.01	531.10	40°02'32.302"N	104°39'11.675"W	0.00	
11917.00†	90.000	0.064	7325.00	4539.64	4521.01	531.21	40°02'33.290"N	104°39'11.674"W	0.00	
12017.00†	90.000	0.064	7325.00	4639.55	4621.01	531.32	40°02'34.278"N	104°39'11.672"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	0.064	7325.00	4739.46	4721.01	531.43	40°02'35.266"N	104°39'11.671"W	0.00	
12217.00†	90.000	0.064	7325.00	4839.37	4821.01	531.55	40°02'36.254"N	104°39'11.669"W	0.00	
12317.00†	90.000	0.064	7325.00	4939.29	4921.01	531.66	40°02'37.243"N	104°39'11.668"W	0.00	
12417.00†	90.000	0.064	7325.00	5039.20	5021.01	531.77	40°02'38.231"N	104°39'11.667"W	0.00	
12517.00†	90.000	0.064	7325.00	5139.11	5121.01	531.88	40°02'39.219"N	104°39'11.665"W	0.00	
12617.00†	90.000	0.064	7325.00	5239.03	5221.01	531.99	40°02'40.207"N	104°39'11.664"W	0.00	
12717.00†	90.000	0.064	7325.00	5338.94	5321.01	532.11	40°02'41.196"N	104°39'11.662"W	0.00	
12817.00†	90.000	0.064	7325.00	5438.85	5421.01	532.22	40°02'42.184"N	104°39'11.661"W	0.00	
12917.00†	90.000	0.064	7325.00	5538.76	5521.01	532.33	40°02'43.172"N	104°39'11.659"W	0.00	

Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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	0.064	7325.00	5638.68	5621.01	532.44	40°02'44.160"N	104°39'11.658"W	0.00	
13117.00†	90.000	0.064	7325.00	5738.59	5721.01	532.55	40°02'45.148"N	104°39'11.656"W	0.00	
13217.00†	90.000	0.064	7325.00	5838.50	5821.01	532.67	40°02'46.137"N	104°39'11.655"W	0.00	
13317.00†	90.000	0.064	7325.00	5938.41	5921.01	532.78	40°02'47.125"N	104°39'11.653"W	0.00	
13417.00†	90.000	0.064	7325.00	6038.33	6021.01	532.89	40°02'48.113"N	104°39'11.652"W	0.00	
13517.00†	90.000	0.064	7325.00	6138.24	6121.01	533.00	40°02'49.101"N	104°39'11.650"W	0.00	
13617.00†	90.000	0.064	7325.00	6238.15	6221.01	533.11	40°02'50.090"N	104°39'11.649"W	0.00	
13717.00†	90.000	0.064	7325.00	6338.07	6321.01	533.22	40°02'51.078"N	104°39'11.647"W	0.00	
13817.00†	90.000	0.064	7325.00	6437.98	6421.01	533.34	40°02'52.066"N	104°39'11.646"W	0.00	
13917.00†	90.000	0.064	7325.00	6537.89	6521.01	533.45	40°02'53.054"N	104°39'11.645"W	0.00	
14017.00†	90.000	0.064	7325.00	6637.80	6621.01	533.56	40°02'54.042"N	104°39'11.643"W	0.00	
14117.00†	90.000	0.064	7325.00	6737.72	6721.01	533.67	40°02'55.031"N	104°39'11.642"W	0.00	
14217.00†	90.000	0.064	7325.00	6837.63	6821.01	533.78	40°02'56.019"N	104°39'11.640"W	0.00	
14317.00†	90.000	0.064	7325.00	6937.54	6921.01	533.90	40°02'57.007"N	104°39'11.639"W	0.00	
14417.00†	90.000	0.064	7325.00	7037.45	7021.01	534.01	40°02'57.995"N	104°39'11.637"W	0.00	
14517.00†	90.000	0.064	7325.00	7137.37	7121.01	534.12	40°02'58.984"N	104°39'11.636"W	0.00	
14617.00†	90.000	0.064	7325.00	7237.28	7221.01	534.23	40°02'59.972"N	104°39'11.634"W	0.00	
14717.00†	90.000	0.064	7325.00	7337.19	7321.01	534.34	40°03'00.960"N	104°39'11.633"W	0.00	
14817.00†	90.000	0.064	7325.00	7437.10	7421.01	534.46	40°03'01.948"N	104°39'11.631"W	0.00	
14917.00†	90.000	0.064	7325.00	7537.02	7521.01	534.57	40°03'02.937"N	104°39'11.630"W	0.00	
15017.00†	90.000	0.064	7325.00	7636.93	7621.01	534.68	40°03'03.925"N	104°39'11.628"W	0.00	
15117.00†	90.000	0.064	7325.00	7736.84	7721.01	534.79	40°03'04.913"N	104°39'11.627"W	0.00	
15217.00†	90.000	0.064	7325.00	7836.76	7821.01	534.90	40°03'05.901"N	104°39'11.625"W	0.00	
15317.00†	90.000	0.064	7325.00	7936.67	7921.01	535.02	40°03'06.889"N	104°39'11.624"W	0.00	
15417.00†	90.000	0.064	7325.00	8036.58	8021.01	535.13	40°03'07.878"N	104°39'11.623"W	0.00	
15517.00†	90.000	0.064	7325.00	8136.49	8121.01	535.24	40°03'08.866"N	104°39'11.621"W	0.00	
15617.00†	90.000	0.064	7325.00	8236.41	8221.01	535.35	40°03'09.854"N	104°39'11.620"W	0.00	
15717.00†	90.000	0.064	7325.00	8336.32	8321.01	535.46	40°03'10.842"N	104°39'11.618"W	0.00	
15817.00†	90.000	0.064	7325.00	8436.23	8421.01	535.57	40°03'11.831"N	104°39'11.617"W	0.00	
15917.00†	90.000	0.064	7325.00	8536.14	8521.01	535.69	40°03'12.819"N	104°39'11.615"W	0.00	
16017.00†	90.000	0.064	7325.00	8636.06	8621.01	535.80	40°03'13.807"N	104°39'11.614"W	0.00	
16117.00†	90.000	0.064	7325.00	8735.97	8721.01	535.91	40°03'14.795"N	104°39'11.612"W	0.00	
16217.00†	90.000	0.064	7325.00	8835.88	8821.01	536.02	40°03'15.783"N	104°39'11.611"W	0.00	
16317.00†	90.000	0.064	7325.00	8935.80	8921.01	536.13	40°03'16.772"N	104°39'11.609"W	0.00	
16417.00†	90.000	0.064	7325.00	9035.71	9021.01	536.25	40°03'17.760"N	104°39'11.608"W	0.00	
16517.00†	90.000	0.064	7325.00	9135.62	9121.01	536.36	40°03'18.748"N	104°39'11.606"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	0.064	7325.00	9235.53	9221.01	536.47	40°03'19.736"N	104°39'11.605"W	0.00	
16717.00†	90.000	0.064	7325.00	9335.45	9321.01	536.58	40°03'20.725"N	104°39'11.603"W	0.00	
16817.00†	90.000	0.064	7325.00	9435.36	9421.01	536.69	40°03'21.713"N	104°39'11.602"W	0.00	
16917.00†	90.000	0.064	7325.00	9535.27	9521.01	536.81	40°03'22.701"N	104°39'11.601"W	0.00	
17017.00†	90.000	0.064	7325.00	9635.18	9621.01	536.92	40°03'23.689"N	104°39'11.599"W	0.00	
17117.00†	90.000	0.064	7325.00	9735.10	9721.01	537.03	40°03'24.677"N	104°39'11.598"W	0.00	
17217.00†	90.000	0.064	7325.00	9835.01	9821.01	537.14	40°03'25.666"N	104°39'11.596"W	0.00	
17317.00†	90.000	0.064	7325.00	9934.92	9921.01	537.25	40°03'26.654"N	104°39'11.595"W	0.00	
17417.00†	90.000	0.064	7325.00	10034.83	10021.01	537.37	40°03'27.642"N	104°39'11.593"W	0.00	

Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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	0.064	7325.00	10134.75	10121.01	537.48	40°03'28.630"N	104°39'11.592"W	0.00	
17617.00†	90.000	0.064	7325.00	10234.66	10221.01	537.59	40°03'29.619"N	104°39'11.590"W	0.00	
17717.00†	90.000	0.064	7325.00	10334.57	10321.01	537.70	40°03'30.607"N	104°39'11.589"W	0.00	
17817.00†	90.000	0.064	7325.00	10434.49	10421.01	537.81	40°03'31.595"N	104°39'11.587"W	0.00	
17917.00†	90.000	0.064	7325.00	10534.40	10521.01	537.92	40°03'32.583"N	104°39'11.586"W	0.00	
18017.00†	90.000	0.064	7325.00	10634.31	10621.01	538.04	40°03'33.571"N	104°39'11.584"W	0.00	
18117.00†	90.000	0.064	7325.00	10734.22	10721.01	538.15	40°03'34.560"N	104°39'11.583"W	0.00	
18217.00†	90.000	0.064	7325.00	10834.14	10821.01	538.26	40°03'35.548"N	104°39'11.581"W	0.00	
18317.00†	90.000	0.064	7325.00	10934.05	10921.01	538.37	40°03'36.536"N	104°39'11.580"W	0.00	
18417.00†	90.000	0.064	7325.00	11033.96	11021.01	538.48	40°03'37.524"N	104°39'11.579"W	0.00	
18517.00†	90.000	0.064	7325.00	11133.87	11121.01	538.60	40°03'38.513"N	104°39'11.577"W	0.00	
18617.00†	90.000	0.064	7325.00	11233.79	11221.01	538.71	40°03'39.501"N	104°39'11.576"W	0.00	
18717.00†	90.000	0.064	7325.00	11333.70	11321.01	538.82	40°03'40.489"N	104°39'11.574"W	0.00	
18817.00†	90.000	0.064	7325.00	11433.61	11421.01	538.93	40°03'41.477"N	104°39'11.573"W	0.00	
18917.00†	90.000	0.064	7325.00	11533.53	11521.01	539.04	40°03'42.465"N	104°39'11.571"W	0.00	
19017.00†	90.000	0.064	7325.00	11633.44	11621.01	539.16	40°03'43.454"N	104°39'11.570"W	0.00	
19117.00†	90.000	0.064	7325.00	11733.35	11721.01	539.27	40°03'44.442"N	104°39'11.568"W	0.00	
19217.00†	90.000	0.064	7325.00	11833.26	11821.01	539.38	40°03'45.430"N	104°39'11.567"W	0.00	
19317.00†	90.000	0.064	7325.00	11933.18	11921.01	539.49	40°03'46.418"N	104°39'11.565"W	0.00	
19417.00†	90.000	0.064	7325.00	12033.09	12021.01	539.60	40°03'47.407"N	104°39'11.564"W	0.00	
19517.00†	90.000	0.064	7325.00	12133.00	12121.01	539.72	40°03'48.395"N	104°39'11.562"W	0.00	
19617.00†	90.000	0.064	7325.00	12232.91	12221.01	539.83	40°03'49.383"N	104°39'11.561"W	0.00	
19717.00†	90.000	0.064	7325.00	12332.83	12321.01	539.94	40°03'50.371"N	104°39'11.559"W	0.00	
19817.00†	90.000	0.064	7325.00	12432.74	12421.01	540.05	40°03'51.359"N	104°39'11.558"W	0.00	
19917.00†	90.000	0.064	7325.00	12532.65	12521.01	540.16	40°03'52.348"N	104°39'11.557"W	0.00	
19978.59	90.000	0.064	7325.00 ²	12594.19	12582.60	540.23	40°03'52.956"N	104°39'11.556"W	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: WILLOW 22-15-3L PWB Ref Wellpath: WILLOW 22-15-3L 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	1497.24	0.00	0.00	-32.37	53.63

Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L 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	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.10-T01N-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.15-T01N-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
SEC.22-T01N-R65W		0.00	0.00	-198.83	3236383.46	1254962.14	40°01'48.612"N	104°39'21.060"W	polygon
2) WILLOW 22-15-3L BHL ON PLAT (2176'FSL & 1772'FWL,SEC.10)	19978.59	7325.00	12582.60	540.23	3237002.58	1267550.73	40°03'52.956"N	104°39'11.556"W	point
1) WILLOW 22-15-3L LP ON PLAT (470'FSL & 1772'FWL,SEC.22)	7680.14	7325.00	284.15	526.47	3237105.99	1255253.17	40°01'51.420"N	104°39'11.736"W	point

SURVEY PROGRAM - Ref Wellbore: WILLOW 22-15-3L PWB Ref Wellpath: WILLOW 22-15-3L 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 22-15-3L PWB
1500.00	19978.59	BHI AutoTrak Curve (Axial Corr, Short spacing)		WILLOW 22-15-3L PWB

Planned Wellpath Report

WILLOW 22-15-3L PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#09 WILLOW 22-15-3L (185'FSL & 1246'FWL,SEC.22)
Area	COLORADO	Well	WILLOW 22-15-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	WILLOW 22-15-3L PWB
Facility	SEC.22-T01N-R65W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	121.114	17.00	Tie On
700.00	0.000	121.114	700.00	End of Tangent
970.30	5.406	121.114	969.90	End of Build
6752.28	5.406	121.114	6726.16	End of Tangent
7680.14	90.000	0.064	7325.00	End of 3D Arc
19978.59	90.000	0.064	7325.00	End of Tangent