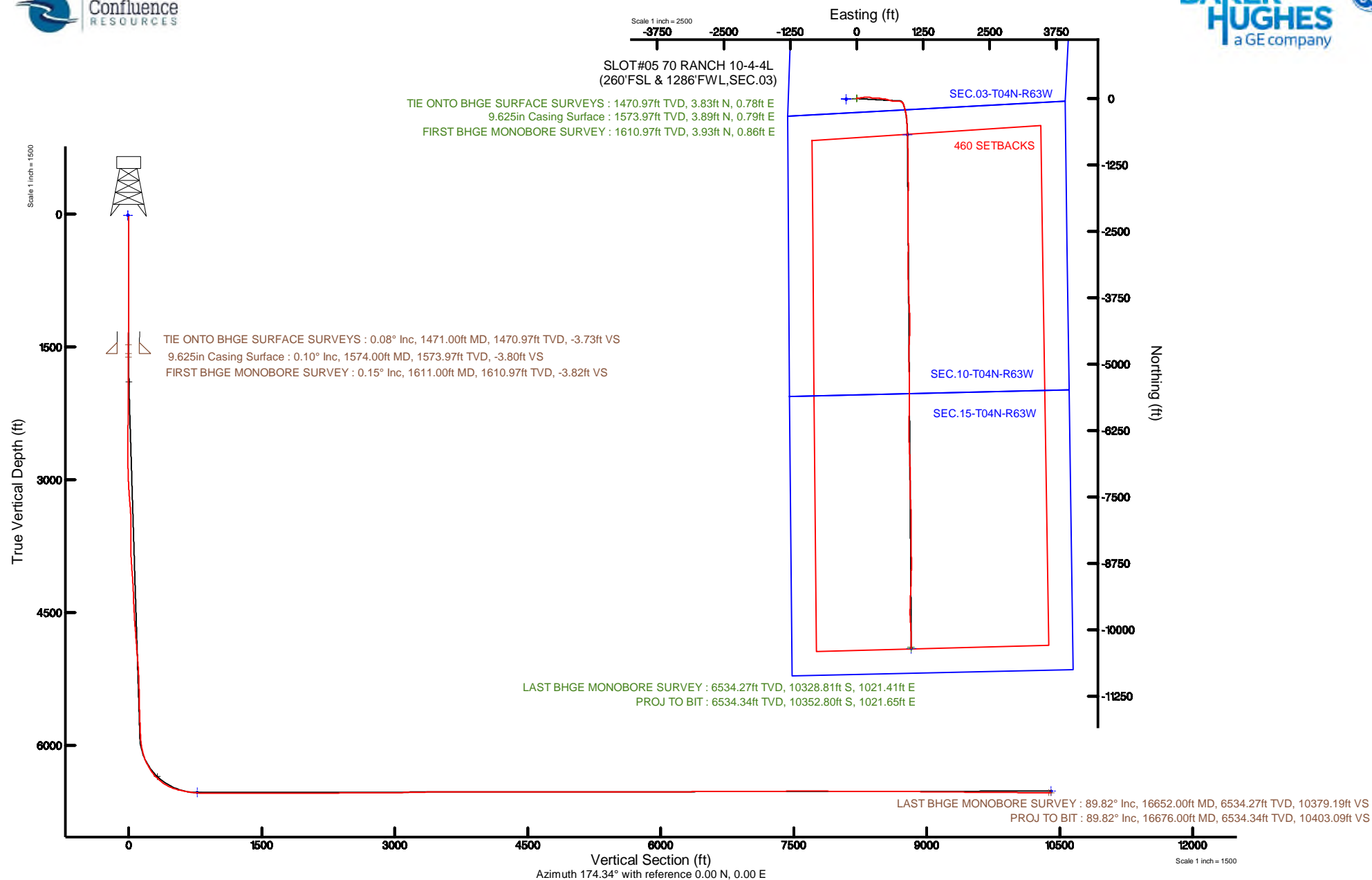


## CONFLUENCE RESOURCES

Location:	COLORADO	Slot:	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Field:	WELD COUNTY (NAD83, TRUE NORTH)	Well:	70 RANCH 10-4-4L
Facility:	SEC.03-T04N-R63W	Wellbore:	70 RANCH 10-4-4L PWB

Pict reference wellpath is 70 RANCH 10-4-4L PWP (REV-A-0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to ENSIGN 140 (23) (RKB)	North Reference: True north
Measured depths are referenced to ENSIGN 140 (23) (RKB)	Scale: True distance
ENSIGN 140 (23) (RKB) to Mean Sea Level: 4521 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03): 0 feet	Created by: robiale01 on 2019-06-24
Coordinates are in feet referenced to Slot	Database: WA DENVER



# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 1 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## 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	0.999958	Report Generated	6/24/2019 at 11:28:02 AM
Convergence at slot	0.69° East	Database/Source file	WA DENVER/70_RANCH_10-4-4L_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	10.93	197.94	3298500.22	1366599.72	40°20'05.172"N	104°25'45.228"W
Facility Reference Pt			3298302.44	1366586.41	40°20'05.064"N	104°25'47.784"W
Field Reference Pt			3230456.90	1245096.09	40°00'11.664"N	104°40'38.424"W

## WELLPATH DATUM

Calculation method	Minimum curvature	ENSIGN 140 (23') (RKB) to Facility Vertical Datum	4621.00ft
Horizontal Reference Pt	Slot	ENSIGN 140 (23') (RKB) to Mean Sea Level	4621.00ft
Vertical Reference Pt	ENSIGN 140 (23') (RKB)	ENSIGN 140 (23') (RKB) to Mud Line at Slot (SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03))	4621.00ft
MD Reference Pt	ENSIGN 140 (23') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	174.34°

# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 2 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH DATA (189 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	106.350	0.00	0.00	0.00	0.00	40°20'05.172"N	104°25'45.228"W	0.00	
23.00	0.000	106.350	23.00	0.00	0.00	0.00	40°20'05.172"N	104°25'45.228"W	0.00	
127.00	0.370	106.350	127.00	0.13	-0.09	0.32	40°20'05.171"N	104°25'45.224"W	0.36	
218.00	0.340	72.430	218.00	0.18	-0.10	0.86	40°20'05.171"N	104°25'45.217"W	0.23	
310.00	0.180	60.610	310.00	0.07	0.06	1.25	40°20'05.173"N	104°25'45.212"W	0.18	
399.00	0.280	152.390	399.00	0.21	-0.07	1.47	40°20'05.171"N	104°25'45.209"W	0.38	
489.00	0.260	341.770	489.00	0.22	-0.07	1.51	40°20'05.171"N	104°25'45.209"W	0.60	
578.00	0.330	85.430	578.00	0.02	0.14	1.70	40°20'05.173"N	104°25'45.206"W	0.52	
667.00	0.340	82.520	666.99	0.02	0.20	2.22	40°20'05.174"N	104°25'45.199"W	0.02	
757.00	0.130	89.050	756.99	0.02	0.24	2.58	40°20'05.174"N	104°25'45.195"W	0.23	
846.00	0.230	69.340	845.99	-0.02	0.30	2.85	40°20'05.175"N	104°25'45.191"W	0.13	
935.00	0.290	319.280	934.99	-0.25	0.53	2.87	40°20'05.177"N	104°25'45.191"W	0.48	
1025.00	0.620	10.190	1024.99	-0.90	1.19	2.81	40°20'05.184"N	104°25'45.192"W	0.55	
1114.00	0.850	338.970	1113.98	-2.00	2.28	2.66	40°20'05.194"N	104°25'45.194"W	0.51	
1204.00	0.320	332.390	1203.98	-2.88	3.12	2.30	40°20'05.203"N	104°25'45.198"W	0.59	
1293.00	0.340	309.400	1292.98	-3.30	3.51	1.98	40°20'05.207"N	104°25'45.202"W	0.15	
1382.00	0.610	278.010	1381.97	-3.60	3.74	1.31	40°20'05.209"N	104°25'45.211"W	0.41	
1471.00	0.079	289.020	1470.97	-3.73	3.83	0.78	40°20'05.210"N	104°25'45.218"W	0.60	TIE ONTO BHGE SURFACE SURVEYS
1611.00	0.150	68.930	1610.97	-3.82	3.93	0.86	40°20'05.211"N	104°25'45.217"W	0.15	FIRST BHGE MONOBORE SURVEY
1701.00	2.590	80.110	1700.94	-4.00	4.32	2.98	40°20'05.215"N	104°25'45.190"W	2.71	
1790.00	4.600	77.600	1789.76	-4.57	5.43	8.44	40°20'05.226"N	104°25'45.119"W	2.26	
1879.00	6.420	79.380	1878.34	-5.42	7.11	16.82	40°20'05.242"N	104°25'45.011"W	2.05	
1968.00	8.190	82.220	1966.62	-6.08	8.89	27.99	40°20'05.260"N	104°25'44.867"W	2.03	
2058.00	9.760	83.260	2055.51	-6.47	10.65	41.92	40°20'05.277"N	104°25'44.687"W	1.75	
2147.00	11.290	85.400	2143.01	-6.45	12.24	58.10	40°20'05.293"N	104°25'44.478"W	1.77	
2236.00	11.400	82.190	2230.28	-6.61	14.13	75.50	40°20'05.312"N	104°25'44.253"W	0.72	
2326.00	11.120	80.250	2318.54	-7.57	16.81	92.86	40°20'05.338"N	104°25'44.029"W	0.52	
2415.00	10.950	81.670	2405.90	-8.57	19.49	109.68	40°20'05.365"N	104°25'43.812"W	0.36	
2504.00	11.130	82.960	2493.25	-9.17	21.76	126.57	40°20'05.387"N	104°25'43.594"W	0.34	
2593.00	11.190	80.240	2580.57	-10.00	24.28	143.61	40°20'05.412"N	104°25'43.374"W	0.60	
2683.00	11.080	82.130	2668.87	-10.95	26.95	160.78	40°20'05.438"N	104°25'43.152"W	0.42	
2772.00	10.920	87.420	2756.24	-10.83	28.50	177.68	40°20'05.454"N	104°25'42.934"W	1.15	
2862.00	11.470	91.950	2844.53	-9.19	28.58	195.14	40°20'05.454"N	104°25'42.708"W	1.15	
2951.00	11.480	91.770	2931.75	-6.87	28.00	212.83	40°20'05.449"N	104°25'42.480"W	0.04	
3040.00	11.390	99.410	3018.99	-3.44	26.29	230.36	40°20'05.432"N	104°25'42.253"W	1.70	
3130.00	11.360	101.450	3107.22	1.48	23.08	247.81	40°20'05.400"N	104°25'42.028"W	0.45	

WELLPATH DATA (189 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3219.00	11.240	108.020	3194.50	7.54	18.65	264.65	40°20'05.356"N	104°25'41.811"W	1.45	
3308.00	11.510	109.830	3281.75	14.85	12.96	281.25	40°20'05.300"N	104°25'41.596"W	0.50	
3398.00	11.560	99.060	3369.95	21.01	8.49	298.61	40°20'05.256"N	104°25'41.372"W	2.39	
3487.00	11.410	87.830	3457.17	23.81	7.42	316.21	40°20'05.245"N	104°25'41.145"W	2.51	
3577.00	11.380	81.670	3545.40	23.94	9.05	333.89	40°20'05.261"N	104°25'40.916"W	1.35	
3666.00	11.350	81.120	3632.66	23.04	11.67	351.23	40°20'05.287"N	104°25'40.693"W	0.13	
3755.00	11.340	87.110	3719.92	22.97	13.46	368.63	40°20'05.305"N	104°25'40.468"W	1.32	
3845.00	11.440	90.510	3808.15	24.36	13.83	386.39	40°20'05.309"N	104°25'40.239"W	0.75	
3934.00	11.370	98.790	3895.40	27.49	12.41	403.89	40°20'05.295"N	104°25'40.013"W	1.84	

# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 3 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4023.00	11.970	105.490	3982.56	33.01	8.60	421.45	40°20'05.257"N	104°25'39.786"W	1.66	
4113.00	11.930	105.770	4070.61	39.78	3.58	439.40	40°20'05.207"N	104°25'39.554"W	0.08	
4202.00	11.980	101.810	4157.68	45.91	-0.81	457.29	40°20'05.164"N	104°25'39.323"W	0.92	
4292.00	12.010	96.390	4245.72	50.67	-3.76	475.74	40°20'05.135"N	104°25'39.085"W	1.25	
4383.00	11.730	92.090	4334.78	53.90	-5.15	494.39	40°20'05.121"N	104°25'38.844"W	1.02	
4473.00	11.840	96.890	4422.88	57.14	-6.59	512.70	40°20'05.107"N	104°25'38.608"W	1.10	
4563.00	11.850	99.720	4510.97	61.60	-9.26	530.98	40°20'05.080"N	104°25'38.372"W	0.65	
4653.00	11.760	103.220	4599.06	67.02	-12.92	549.01	40°20'05.044"N	104°25'38.139"W	0.80	
4742.00	11.820	106.180	4686.19	73.34	-17.53	566.60	40°20'04.999"N	104°25'37.912"W	0.68	
4832.00	11.910	106.240	4774.27	80.24	-22.70	584.37	40°20'04.948"N	104°25'37.682"W	0.10	
4921.00	11.810	103.640	4861.37	86.67	-27.42	602.03	40°20'04.901"N	104°25'37.454"W	0.61	
5011.00	11.770	108.920	4949.47	93.53	-32.56	619.67	40°20'04.850"N	104°25'37.226"W	1.20	
5100.00	11.880	105.830	5036.58	100.67	-38.01	637.07	40°20'04.796"N	104°25'37.002"W	0.72	
5190.00	11.910	102.250	5124.65	106.92	-42.50	655.06	40°20'04.752"N	104°25'36.769"W	0.82	
5280.00	11.990	96.630	5212.70	111.76	-45.55	673.42	40°20'04.722"N	104°25'36.532"W	1.30	
5370.00	11.880	91.820	5300.76	114.96	-46.93	691.96	40°20'04.708"N	104°25'36.293"W	1.11	
5460.00	11.880	87.710	5388.83	116.71	-46.85	710.48	40°20'04.709"N	104°25'36.054"W	0.94	
5549.00	11.890	91.220	5475.93	118.35	-46.68	728.80	40°20'04.711"N	104°25'35.817"W	0.81	
5638.00	11.790	91.680	5563.03	120.61	-47.14	747.06	40°20'04.706"N	104°25'35.581"W	0.15	
5728.00	11.880	93.010	5651.12	123.18	-47.90	765.50	40°20'04.699"N	104°25'35.343"W	0.32	
5818.00	11.760	94.810	5739.21	126.24	-49.15	783.89	40°20'04.686"N	104°25'35.106"W	0.43	
5908.00	12.030	95.550	5827.28	129.73	-50.83	802.36	40°20'04.670"N	104°25'34.867"W	0.34	
5997.00	12.200	96.240	5914.30	133.48	-52.75	820.94	40°20'04.651"N	104°25'34.627"W	0.25	
6087.00	14.730	119.720	6001.88	142.07	-59.46	840.35	40°20'04.584"N	104°25'34.377"W	6.63	
6176.00	18.310	137.070	6087.25	159.76	-75.32	859.72	40°20'04.428"N	104°25'34.127"W	6.81	
6266.00	23.800	157.740	6171.32	188.48	-102.54	876.26	40°20'04.159"N	104°25'33.913"W	10.18	
6355.00	31.120	163.100	6250.25	228.31	-141.22	889.77	40°20'03.776"N	104°25'33.739"W	8.67	
6444.00	38.650	164.250	6323.21	278.30	-190.05	904.02	40°20'03.294"N	104°25'33.555"W	8.49	
6533.00	48.350	167.140	6387.69	338.80	-249.36	919.00	40°20'02.708"N	104°25'33.361"W	11.12	
6623.00	58.570	171.720	6441.23	410.74	-320.35	932.05	40°20'02.006"N	104°25'33.193"W	12.06	
6712.00	68.220	175.930	6481.05	490.19	-399.36	940.48	40°20'01.225"N	104°25'33.084"W	11.64	
6801.00	78.070	178.430	6506.83	575.15	-484.32	944.61	40°20'00.386"N	104°25'33.031"W	11.39	
6891.00	80.230	177.550	6523.77	663.35	-572.66	947.72	40°19'59.513"N	104°25'32.990"W	2.58	
6980.00	84.610	177.300	6535.51	751.43	-660.77	951.68	40°19'58.642"N	104°25'32.939"W	4.93	
7069.00	89.230	178.250	6540.29	840.11	-749.55	955.13	40°19'57.765"N	104°25'32.895"W	5.30	
7158.00	89.940	177.960	6540.93	928.92	-838.49	958.07	40°19'56.886"N	104°25'32.857"W	0.86	

WELLPATH DATA (189 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7248.00	90.000	178.550	6540.98	1018.71	-928.45	960.81	40°19'55.997"N	104°25'32.822"W	0.66	
7337.00	89.880	179.310	6541.07	1107.42	-1017.44	962.47	40°19'55.118"N	104°25'32.800"W	0.86	
7427.00	90.030	179.850	6541.14	1197.04	-1107.43	963.13	40°19'54.228"N	104°25'32.792"W	0.62	
7516.00	90.060	180.630	6541.07	1285.57	-1196.43	962.76	40°19'53.349"N	104°25'32.797"W	0.88	
7605.00	90.060	180.110	6540.98	1374.08	-1285.43	962.19	40°19'52.470"N	104°25'32.804"W	0.58	
7695.00	90.180	178.980	6540.79	1463.71	-1375.43	962.90	40°19'51.580"N	104°25'32.795"W	1.26	
7784.00	90.220	177.590	6540.48	1552.49	-1464.38	965.56	40°19'50.701"N	104°25'32.760"W	1.56	
7873.00	90.150	178.370	6540.19	1641.31	-1553.33	968.70	40°19'49.822"N	104°25'32.720"W	0.88	
7962.00	90.150	179.840	6539.96	1730.00	-1642.31	970.09	40°19'48.943"N	104°25'32.702"W	1.65	

# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 4 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8052.00	90.090	181.200	6539.77	1819.47	-1732.31	969.27	40°19'48.054"N	104°25'32.713"W	1.51	
8141.00	90.310	180.340	6539.46	1907.91	-1821.30	968.08	40°19'47.174"N	104°25'32.728"W	1.00	
8230.00	90.220	180.060	6539.05	1996.45	-1910.30	967.77	40°19'46.295"N	104°25'32.732"W	0.33	
8320.00	90.150	179.850	6538.76	2086.01	-2000.29	967.84	40°19'45.405"N	104°25'32.731"W	0.25	
8409.00	90.030	179.400	6538.62	2174.64	-2089.29	968.42	40°19'44.526"N	104°25'32.724"W	0.52	
8499.00	90.280	179.960	6538.37	2264.24	-2179.29	968.92	40°19'43.637"N	104°25'32.717"W	0.68	
8588.00	90.370	180.140	6537.87	2352.80	-2268.29	968.85	40°19'42.757"N	104°25'32.719"W	0.23	
8678.00	90.310	180.840	6537.34	2442.28	-2358.28	968.08	40°19'41.868"N	104°25'32.729"W	0.78	
8767.00	90.220	180.500	6536.92	2530.74	-2447.28	967.04	40°19'40.988"N	104°25'32.742"W	0.40	
8857.00	89.910	180.040	6536.82	2620.25	-2537.27	966.61	40°19'40.099"N	104°25'32.748"W	0.62	
8946.00	89.970	179.170	6536.92	2708.88	-2626.27	967.22	40°19'39.220"N	104°25'32.740"W	0.98	
9035.00	89.940	178.570	6536.99	2797.60	-2715.25	968.98	40°19'38.340"N	104°25'32.717"W	0.67	
9124.00	90.980	180.080	6536.27	2886.26	-2804.24	970.03	40°19'37.461"N	104°25'32.704"W	2.06	
9214.00	90.920	181.180	6534.78	2975.70	-2894.22	969.04	40°19'36.572"N	104°25'32.716"W	1.22	
9303.00	91.020	180.750	6533.27	3064.09	-2983.20	967.54	40°19'35.693"N	104°25'32.736"W	0.50	
9392.00	91.200	180.370	6531.55	3152.55	-3072.18	966.67	40°19'34.813"N	104°25'32.747"W	0.47	
9482.00	91.080	179.900	6529.76	3242.07	-3162.16	966.46	40°19'33.924"N	104°25'32.750"W	0.54	
9571.00	91.140	179.360	6528.03	3330.68	-3251.14	967.03	40°19'33.045"N	104°25'32.742"W	0.61	
9661.00	91.020	179.220	6526.34	3420.33	-3341.12	968.15	40°19'32.156"N	104°25'32.728"W	0.20	
9750.00	89.850	179.090	6525.66	3509.01	-3430.10	969.46	40°19'31.276"N	104°25'32.711"W	1.32	
9839.00	89.850	179.090	6525.89	3597.70	-3519.09	970.87	40°19'30.397"N	104°25'32.693"W	0.00	
9929.00	89.880	177.780	6526.11	3687.47	-3609.05	973.33	40°19'29.508"N	104°25'32.661"W	1.46	
10018.00	89.880	177.580	6526.29	3776.32	-3697.98	976.93	40°19'28.629"N	104°25'32.615"W	0.22	
10107.00	89.780	177.090	6526.56	3865.19	-3786.88	981.07	40°19'27.751"N	104°25'32.561"W	0.56	
10197.00	89.820	176.970	6526.87	3955.09	-3876.76	985.74	40°19'26.863"N	104°25'32.501"W	0.14	
10286.00	90.000	176.800	6527.01	4044.01	-3965.63	990.57	40°19'25.984"N	104°25'32.439"W	0.28	
10375.00	90.060	177.820	6526.96	4132.89	-4054.53	994.75	40°19'25.106"N	104°25'32.385"W	1.15	
10465.00	90.000	178.880	6526.92	4222.66	-4144.49	997.34	40°19'24.217"N	104°25'32.352"W	1.18	
10554.00	90.000	180.560	6526.92	4311.27	-4233.49	997.78	40°19'23.337"N	104°25'32.346"W	1.89	
10643.00	90.220	180.630	6526.75	4399.74	-4322.48	996.85	40°19'22.458"N	104°25'32.358"W	0.26	
10733.00	90.220	180.630	6526.40	4489.20	-4412.48	995.86	40°19'21.569"N	104°25'32.371"W	0.00	
10822.00	89.970	183.270	6526.25	4577.40	-4501.42	992.83	40°19'20.690"N	104°25'32.410"W	2.98	
10912.00	89.970	183.210	6526.30	4666.32	-4591.27	987.75	40°19'19.802"N	104°25'32.476"W	0.07	
11002.00	89.940	181.890	6526.37	4755.39	-4681.18	983.74	40°19'18.913"N	104°25'32.527"W	1.47	
11091.00	90.000	180.930	6526.42	4843.72	-4770.15	981.55	40°19'18.034"N	104°25'32.556"W	1.08	
11180.00	89.970	179.870	6526.44	4932.22	-4859.15	980.93	40°19'17.155"N	104°25'32.564"W	1.19	

WELLPATH DATA (189 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11270.00	90.220	179.450	6526.29	5021.83	-4949.15	981.47	40°19'16.265"N	104°25'32.557"W	0.54	
11359.00	90.150	179.110	6526.00	5110.50	-5038.14	982.58	40°19'15.386"N	104°25'32.543"W	0.39	
11448.00	90.120	177.620	6525.79	5199.28	-5127.10	985.12	40°19'14.507"N	104°25'32.510"W	1.67	
11538.00	89.820	177.910	6525.84	5289.11	-5217.03	988.63	40°19'13.618"N	104°25'32.465"W	0.46	
11627.00	89.850	179.400	6526.10	5377.86	-5306.01	990.72	40°19'12.739"N	104°25'32.438"W	1.67	
11716.00	89.750	179.930	6526.41	5466.47	-5395.00	991.24	40°19'11.860"N	104°25'32.431"W	0.61	
11806.00	89.820	180.020	6526.75	5556.04	-5485.00	991.28	40°19'10.970"N	104°25'32.430"W	0.13	
11895.00	90.120	180.400	6526.79	5644.57	-5574.00	990.96	40°19'10.091"N	104°25'32.435"W	0.54	
11984.00	90.030	180.710	6526.68	5733.05	-5663.00	990.09	40°19'09.211"N	104°25'32.446"W	0.36	



# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 5 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12074.00	90.000	180.720	6526.65	5822.49	-5752.99	988.97	40°19'08.322"N	104°25'32.460"W	0.04	
12163.00	90.030	180.880	6526.63	5910.93	-5841.98	987.73	40°19'07.443"N	104°25'32.477"W	0.18	
12252.00	90.030	180.920	6526.58	5999.34	-5930.97	986.33	40°19'06.563"N	104°25'32.495"W	0.04	
12342.00	90.060	180.930	6526.51	6088.75	-6020.96	984.88	40°19'05.674"N	104°25'32.513"W	0.04	
12431.00	90.920	180.030	6525.75	6177.23	-6109.95	984.13	40°19'04.795"N	104°25'32.523"W	1.40	
12521.00	90.950	179.560	6524.28	6266.81	-6199.94	984.45	40°19'03.905"N	104°25'32.519"W	0.52	
12610.00	91.140	179.520	6522.66	6355.43	-6288.92	985.17	40°19'03.026"N	104°25'32.510"W	0.22	
12700.00	90.950	180.270	6521.02	6444.99	-6378.91	985.33	40°19'02.137"N	104°25'32.508"W	0.86	
12789.00	90.370	179.340	6519.99	6533.58	-6467.90	985.64	40°19'01.258"N	104°25'32.504"W	1.23	
12878.00	90.370	177.820	6519.42	6622.33	-6556.87	987.84	40°19'00.378"N	104°25'32.475"W	1.71	
12968.00	90.220	176.840	6518.95	6712.21	-6646.77	992.03	40°18'59.490"N	104°25'32.421"W	1.10	
13057.00	90.250	177.550	6518.59	6801.10	-6735.66	996.39	40°18'58.612"N	104°25'32.365"W	0.80	
13146.00	90.060	178.290	6518.35	6889.92	-6824.60	999.62	40°18'57.733"N	104°25'32.324"W	0.86	
13235.00	90.060	178.760	6518.25	6978.68	-6913.57	1001.91	40°18'56.854"N	104°25'32.294"W	0.53	
13325.00	90.000	178.780	6518.21	7068.41	-7003.55	1003.84	40°18'55.964"N	104°25'32.269"W	0.07	
13414.00	90.060	178.940	6518.16	7157.14	-7092.53	1005.61	40°18'55.085"N	104°25'32.246"W	0.19	
13503.00	90.090	179.710	6518.04	7245.80	-7181.52	1006.66	40°18'54.206"N	104°25'32.233"W	0.87	
13593.00	90.090	180.130	6517.90	7335.37	-7271.52	1006.79	40°18'53.316"N	104°25'32.231"W	0.47	
13682.00	90.120	179.830	6517.74	7423.94	-7360.52	1006.82	40°18'52.437"N	104°25'32.231"W	0.34	
13771.00	90.220	178.940	6517.48	7512.60	-7449.52	1007.77	40°18'51.557"N	104°25'32.219"W	1.01	
13861.00	90.220	177.500	6517.13	7602.39	-7539.47	1010.57	40°18'50.668"N	104°25'32.183"W	1.60	
13950.00	89.820	177.930	6517.10	7691.23	-7628.40	1014.12	40°18'49.790"N	104°25'32.137"W	0.66	
14039.00	89.820	176.630	6517.38	7780.11	-7717.30	1018.34	40°18'48.911"N	104°25'32.082"W	1.46	
14129.00	89.780	177.380	6517.69	7870.01	-7807.17	1023.04	40°18'48.023"N	104°25'32.022"W	0.83	
14218.00	89.820	180.230	6518.00	7958.73	-7896.14	1024.90	40°18'47.144"N	104°25'31.998"W	3.20	
14308.00	89.880	180.910	6518.24	8048.20	-7986.14	1024.00	40°18'46.255"N	104°25'32.009"W	0.76	
14397.00	90.000	180.920	6518.33	8136.61	-8075.13	1022.58	40°18'45.375"N	104°25'32.028"W	0.14	
14486.00	89.970	180.760	6518.36	8225.04	-8164.12	1021.28	40°18'44.496"N	104°25'32.045"W	0.18	
14575.00	89.970	180.060	6518.40	8313.54	-8253.11	1020.64	40°18'43.616"N	104°25'32.053"W	0.79	
14665.00	89.880	179.160	6518.52	8403.16	-8343.11	1021.25	40°18'42.727"N	104°25'32.045"W	1.00	
14754.00	89.750	179.250	6518.81	8491.84	-8432.10	1022.49	40°18'41.848"N	104°25'32.029"W	0.18	
14843.00	89.820	179.490	6519.14	8580.50	-8521.10	1023.47	40°18'40.968"N	104°25'32.017"W	0.28	
14933.00	89.880	177.050	6519.38	8670.28	-8611.05	1026.18	40°18'40.079"N	104°25'31.982"W	2.71	
15022.00	89.910	178.550	6519.54	8759.11	-8699.98	1029.60	40°18'39.201"N	104°25'31.938"W	1.69	
15112.00	88.580	181.460	6520.73	8848.65	-8789.96	1029.59	40°18'38.311"N	104°25'31.938"W	3.55	
15201.00	88.490	181.320	6523.00	8936.95	-8878.90	1027.43	40°18'37.432"N	104°25'31.966"W	0.19	

WELLPATH DATA (189 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15290.00	89.940	180.520	6524.22	9025.35	-8967.88	1026.01	40°18'36.553"N	104°25'31.984"W	1.86	
15379.00	89.320	181.220	6524.80	9113.77	-9056.87	1024.65	40°18'35.674"N	104°25'32.002"W	1.05	
15469.00	89.380	183.210	6525.82	9202.91	-9146.79	1021.18	40°18'34.785"N	104°25'32.047"W	2.21	
15558.00	89.540	183.040	6526.66	9290.86	-9235.65	1016.32	40°18'33.907"N	104°25'32.109"W	0.26	
15647.00	89.480	182.560	6527.42	9378.89	-9324.54	1011.98	40°18'33.029"N	104°25'32.165"W	0.54	
15737.00	89.570	182.170	6528.16	9468.01	-9414.46	1008.26	40°18'32.140"N	104°25'32.213"W	0.44	
15826.00	89.970	181.460	6528.52	9556.25	-9503.42	1005.44	40°18'31.261"N	104°25'32.250"W	0.92	
15915.00	89.970	181.950	6528.57	9644.51	-9592.38	1002.80	40°18'30.382"N	104°25'32.284"W	0.55	
16004.00	89.660	179.490	6528.85	9732.96	-9681.36	1001.68	40°18'29.503"N	104°25'32.298"W	2.79	

# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 6 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16093.00	89.540	176.940	6529.48	9821.74	-9770.31	1004.45	40°18'28.624"N	104°25'32.263"W	2.87	
16182.00	89.350	175.440	6530.34	9910.69	-9859.11	1010.36	40°18'27.746"N	104°25'32.186"W	1.70	
16272.00	88.430	176.900	6532.08	10000.62	-9948.89	1016.37	40°18'26.859"N	104°25'32.109"W	1.92	
16361.00	89.570	179.250	6533.64	10089.41	-10037.82	1019.36	40°18'25.980"N	104°25'32.070"W	2.93	
16450.00	89.880	179.930	6534.06	10178.04	-10126.81	1020.00	40°18'25.101"N	104°25'32.062"W	0.84	
16540.00	89.970	179.630	6534.18	10267.63	-10216.81	1020.34	40°18'24.212"N	104°25'32.058"W	0.35	
16629.00	89.970	179.330	6534.23	10356.27	-10305.81	1021.15	40°18'23.332"N	104°25'32.047"W	0.34	
16652.00	89.820	179.410	6534.27	10379.19	-10328.81	1021.41	40°18'23.105"N	104°25'32.044"W	0.74	LAST BHGE MONOBORE SURVEY
16676.00	89.820	179.410	6534.34	10403.09	-10352.80	1021.65	40°18'22.868"N	104°25'32.041"W	0.00	PROJ TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: 70 RANCH 10-4-4L AWB Ref Wellpath: 70 RANCH 10-4-4L AWP

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]
13.5in Open Hole	23.00	1582.00	1559.00	23.00	1581.97	0.00	0.00	3.90	0.80
9.625in Casing Surface	23.00	1574.00	1551.00	23.00	1573.97	0.00	0.00	3.89	0.79
8.5in Open Hole	1582.00	16676.00	15094.00	1581.97	6534.34	3.90	0.80	-10352.80	1021.65

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T04N-R63W	12.00	-10.93	-197.94	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.10-T04N-R63W	12.00	-10.93	-197.94	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.15-T04N-R63W	12.00	-10.93	-197.94	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
460 SETBACKS	6384.00	-10.93	-197.94	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
70 RANCH 10-4-4L BHL (470'FNL & 2250'FWL,SEC.15)	6516.50	-10353.58	1026.38	3299651.50	1356259.74	40°18'22.860"N	104°25'31.980"W	point
70 RANCH 10-4-4L LP (470'FNL & 2250'FWL,SEC.10)	6531.50	-681.24	953.49	3299461.83	1365930.08	40°19'58.440"N	104°25'32.916"W	point

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape

WELLPATH COMPOSITION - Ref Wellbore: 70 RANCH 10-4-4L AWB					Ref Wellpath: 70 RANCH 10-4-4L AWP			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment				Wellbore	
23.00	1471.00	BHI NaviTrak (Rotating+Axial Corr)	13 1/2" Surface Navitrak (Rotating+Axial Corr) <127-1471>				70 RANCH 10-4-4L AWB	
1471.00	16652.00	BHI AutoTrak Curve (Short)	8.5" Monobore AutoTrak Curve (Short) <1611-16652>				70 RANCH 10-4-4L AWB	
16652.00	16676.00	Blind Drilling (std)	Projection to bit				70 RANCH 10-4-4L AWB	

# Actual Wellpath Report

70 RANCH 10-4-4L AWP

Page 7 of 7

## REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#05 70 RANCH 10-4-4L (260'FSL & 1286'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-4-4L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-4-4L AWB
Facility	SEC.03-T04N-R63W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1471.00	0.079	289.020	1470.97	TIE ONTO BHGE SURFACE SURVEYS
1611.00	0.150	68.930	1610.97	FIRST BHGE MONOBORE SURVEY
16652.00	89.820	179.410	6534.27	LAST BHGE MONOBORE SURVEY
16676.00	89.820	179.410	6534.34	PROJ TO BIT