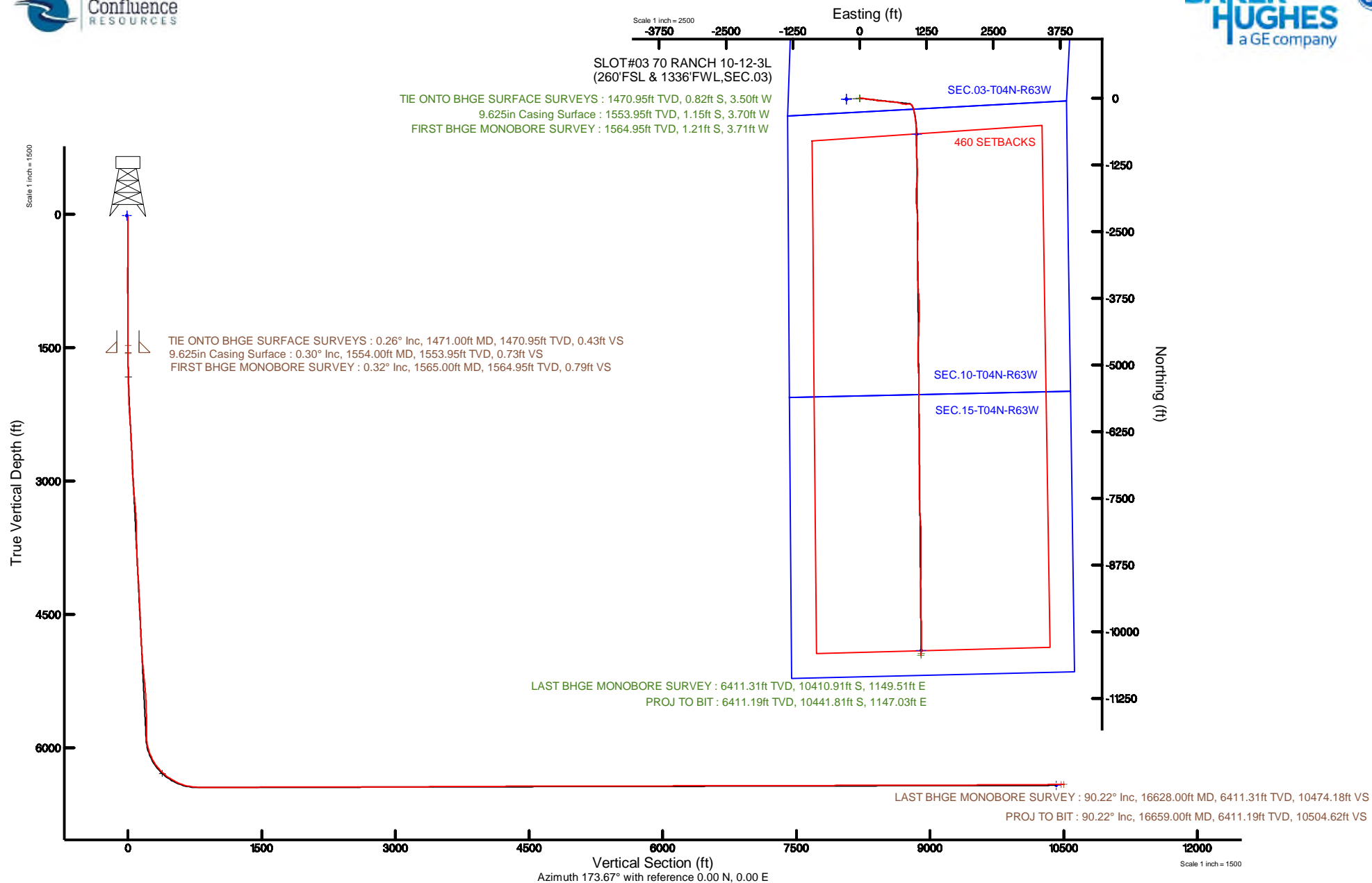


CONFLUENCE RESOURCES

Location: COLORADO Slot: SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL, SEC.03)
Field: WELD COUNTY (NAD83, TRUE NORTH) Well: 70 RANCH 10-12-3L
Facility: SEC.03-T04N-R63W Wellbore: 70 RANCH 10-12-3L PWB

Plot reference wellpath is 70 RANCH 10-12-3L PWB (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: 4622 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'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 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L 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 10:51:52 AM
Convergence at slot	0.69° East	Database/Source file	WA DENVER/70_RANCH_10-12-3L_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	14.57	248.12	3298550.36	1366603.97	40°20'05.208"N	104°25'44.580"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	4622.00ft
Horizontal Reference Pt	Slot	ENSIGN 140 (23') (RKB) to Mean Sea Level	4622.00ft
Vertical Reference Pt	ENSIGN 140 (23') (RKB)	ENSIGN 140 (23') (RKB) to Mud Line at Slot (SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03))	4622.00ft
MD Reference Pt	ENSIGN 140 (23') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	173.67°

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (188 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	13.940	0.00	0.00	0.00	0.00	40°20'05.208"N	104°25'44.580"W	0.00	
23.00	0.000	13.940	23.00	0.00	0.00	0.00	40°20'05.208"N	104°25'44.580"W	0.00	
218.00	0.360	13.940	218.00	-0.57	0.59	0.15	40°20'05.214"N	104°25'44.578"W	0.18	
310.00	0.440	6.500	310.00	-1.19	1.23	0.26	40°20'05.220"N	104°25'44.577"W	0.10	
399.00	0.600	325.760	398.99	-1.94	1.95	0.03	40°20'05.227"N	104°25'44.580"W	0.44	
489.00	0.570	320.400	488.99	-2.73	2.69	-0.52	40°20'05.235"N	104°25'44.587"W	0.07	
578.00	0.340	357.300	577.99	-3.36	3.29	-0.81	40°20'05.241"N	104°25'44.590"W	0.41	
667.00	0.740	330.690	666.98	-4.15	4.06	-1.11	40°20'05.248"N	104°25'44.594"W	0.52	
757.00	0.340	168.830	756.98	-4.42	4.30	-1.34	40°20'05.250"N	104°25'44.597"W	1.19	
846.00	0.570	211.980	845.98	-3.81	3.67	-1.52	40°20'05.244"N	104°25'44.600"W	0.45	
935.00	0.750	194.950	934.97	-2.92	2.73	-1.91	40°20'05.235"N	104°25'44.605"W	0.30	
1025.00	0.740	201.110	1024.96	-1.86	1.62	-2.27	40°20'05.224"N	104°25'44.609"W	0.09	
1114.00	0.830	234.370	1113.96	-1.03	0.70	-3.00	40°20'05.215"N	104°25'44.619"W	0.51	
1204.00	0.230	156.970	1203.95	-0.54	0.16	-3.46	40°20'05.210"N	104°25'44.625"W	0.90	
1293.00	0.100	89.110	1292.95	-0.36	-0.01	-3.31	40°20'05.208"N	104°25'44.623"W	0.24	
1382.00	0.460	188.480	1381.95	-0.01	-0.36	-3.28	40°20'05.204"N	104°25'44.622"W	0.55	
1471.00	0.260	235.580	1470.95	0.43	-0.82	-3.50	40°20'05.200"N	104°25'44.625"W	0.38	TIE ONTO BHGE SURFACE SURVEYS
1565.00	0.320	186.330	1564.95	0.79	-1.21	-3.71	40°20'05.196"N	104°25'44.628"W	0.26	FIRST BHGE MONOBORE SURVEY
1610.00	1.340	95.590	1609.94	1.02	-1.38	-3.20	40°20'05.194"N	104°25'44.621"W	3.07	
1699.00	4.960	85.230	1698.80	1.34	-1.16	1.67	40°20'05.197"N	104°25'44.558"W	4.10	
1788.00	7.670	90.770	1787.25	2.18	-0.92	11.45	40°20'05.199"N	104°25'44.432"W	3.12	
1878.00	10.030	93.940	1876.17	4.32	-1.54	25.27	40°20'05.193"N	104°25'44.254"W	2.68	
1967.00	10.780	90.520	1963.71	6.70	-2.15	41.33	40°20'05.187"N	104°25'44.046"W	1.09	
2056.00	10.640	87.070	2051.16	8.18	-1.81	57.86	40°20'05.190"N	104°25'43.833"W	0.74	
2146.00	11.640	96.760	2139.47	10.73	-2.45	75.17	40°20'05.184"N	104°25'43.609"W	2.35	
2235.00	13.580	102.140	2226.32	16.07	-5.71	94.31	40°20'05.152"N	104°25'43.362"W	2.55	
2325.00	13.250	99.080	2313.87	22.16	-9.56	114.82	40°20'05.114"N	104°25'43.097"W	0.87	
2415.00	12.990	98.790	2401.52	27.54	-12.73	135.00	40°20'05.082"N	104°25'42.837"W	0.30	
2504.00	13.060	98.760	2488.23	32.77	-15.79	154.83	40°20'05.052"N	104°25'42.581"W	0.08	
2593.00	13.260	96.900	2574.89	37.73	-18.55	174.90	40°20'05.025"N	104°25'42.322"W	0.53	
2682.00	13.120	93.900	2661.54	41.86	-20.46	195.11	40°20'05.006"N	104°25'42.061"W	0.78	
2772.00	13.000	91.590	2749.22	45.07	-21.44	215.42	40°20'04.996"N	104°25'41.798"W	0.60	
2861.00	12.840	90.860	2835.96	47.68	-21.86	235.31	40°20'04.992"N	104°25'41.541"W	0.26	
2950.00	12.810	96.090	2922.75	51.05	-23.06	255.01	40°20'04.980"N	104°25'41.287"W	1.30	
3040.00	12.910	103.380	3010.49	56.58	-26.44	274.72	40°20'04.947"N	104°25'41.033"W	1.81	
3129.00	13.010	107.360	3097.23	63.96	-31.73	293.95	40°20'04.894"N	104°25'40.784"W	1.01	

WELLPATH DATA (188 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3219.00	13.030	108.640	3184.91	72.32	-38.00	313.23	40°20'04.833"N	104°25'40.535"W	0.32	
3308.00	12.870	106.790	3271.65	80.45	-44.07	332.23	40°20'04.773"N	104°25'40.290"W	0.50	
3397.00	13.120	101.020	3358.38	87.35	-48.86	351.63	40°20'04.725"N	104°25'40.039"W	1.48	
3487.00	13.190	93.210	3446.02	92.10	-51.39	371.91	40°20'04.700"N	104°25'39.778"W	1.98	
3576.00	12.860	85.830	3532.74	94.16	-51.24	391.93	40°20'04.702"N	104°25'39.519"W	1.90	
3666.00	12.850	85.750	3620.48	94.90	-49.77	411.90	40°20'04.716"N	104°25'39.261"W	0.02	
3755.00	12.870	90.020	3707.25	96.36	-49.04	431.68	40°20'04.723"N	104°25'39.006"W	1.07	
3844.00	12.900	92.740	3794.01	99.02	-49.52	451.52	40°20'04.719"N	104°25'38.750"W	0.68	
3934.00	12.790	93.550	3881.76	102.31	-50.61	471.50	40°20'04.708"N	104°25'38.492"W	0.23	

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4023.00	12.760	97.850	3968.56	106.41	-52.57	491.07	40°20'04.689"N	104°25'38.239"W	1.07	
4112.00	12.940	101.980	4055.33	111.95	-55.98	510.55	40°20'04.655"N	104°25'37.987"W	1.05	
4202.00	12.960	99.530	4143.04	117.88	-59.74	530.36	40°20'04.618"N	104°25'37.731"W	0.61	
4291.00	12.830	95.170	4229.80	122.58	-62.28	550.05	40°20'04.592"N	104°25'37.477"W	1.10	
4381.00	12.810	94.190	4317.56	126.39	-63.91	569.95	40°20'04.576"N	104°25'37.220"W	0.24	
4472.00	12.910	97.050	4406.27	130.59	-65.90	590.10	40°20'04.557"N	104°25'36.960"W	0.71	
4562.00	12.890	94.840	4494.00	134.86	-67.98	610.08	40°20'04.536"N	104°25'36.702"W	0.55	
4652.00	12.540	92.560	4581.80	138.31	-69.26	629.84	40°20'04.524"N	104°25'36.447"W	0.68	
4741.00	13.740	94.950	4668.47	141.88	-70.60	650.03	40°20'04.510"N	104°25'36.186"W	1.48	
4831.00	13.580	94.920	4755.92	146.03	-72.43	671.20	40°20'04.492"N	104°25'35.913"W	0.18	
4921.00	13.490	98.280	4843.42	150.74	-74.85	692.12	40°20'04.468"N	104°25'35.643"W	0.88	
5010.00	12.610	98.940	4930.12	155.92	-77.86	711.99	40°20'04.439"N	104°25'35.386"W	1.00	
5100.00	13.120	105.580	5017.87	162.32	-82.13	731.53	40°20'04.396"N	104°25'35.134"W	1.74	
5189.00	12.940	108.430	5104.58	170.26	-87.99	750.72	40°20'04.338"N	104°25'34.886"W	0.75	
5279.00	12.980	109.460	5192.28	178.88	-94.54	769.81	40°20'04.274"N	104°25'34.640"W	0.26	
5369.00	12.970	107.780	5279.99	187.41	-100.99	788.95	40°20'04.210"N	104°25'34.392"W	0.42	
5459.00	12.940	104.480	5367.70	195.11	-106.60	808.33	40°20'04.155"N	104°25'34.142"W	0.82	
5548.00	13.080	94.820	5454.42	200.60	-109.94	828.02	40°20'04.122"N	104°25'33.888"W	2.45	
5638.00	12.890	91.530	5542.12	203.94	-111.06	848.20	40°20'04.110"N	104°25'33.627"W	0.85	
5727.00	13.170	89.490	5628.83	206.33	-111.23	868.26	40°20'04.109"N	104°25'33.368"W	0.60	
5817.00	13.210	84.030	5716.46	207.44	-110.07	888.74	40°20'04.120"N	104°25'33.104"W	1.38	
5907.00	13.220	82.600	5804.08	207.31	-107.68	909.17	40°20'04.144"N	104°25'32.840"W	0.36	
5997.00	13.640	90.420	5891.62	208.37	-106.43	929.99	40°20'04.156"N	104°25'32.571"W	2.07	
6086.00	19.730	117.760	5976.96	218.05	-113.52	953.84	40°20'04.086"N	104°25'32.263"W	10.99	
6175.00	24.990	141.770	6059.41	242.49	-135.35	978.84	40°20'03.870"N	104°25'31.940"W	11.73	
6265.00	30.010	158.950	6139.34	280.49	-171.37	998.73	40°20'03.514"N	104°25'31.684"W	10.38	
6355.00	37.670	167.870	6214.09	329.72	-219.36	1012.62	40°20'03.040"N	104°25'31.504"W	10.12	
6444.00	47.150	170.220	6279.73	389.48	-278.23	1023.90	40°20'02.458"N	104°25'31.359"W	10.80	
6533.00	55.070	170.930	6335.56	458.60	-346.52	1035.21	40°20'01.784"N	104°25'31.213"W	8.92	
6622.00	62.900	173.040	6381.39	534.78	-421.99	1045.78	40°20'01.038"N	104°25'31.076"W	9.03	
6711.00	72.920	175.110	6414.82	617.13	-503.92	1054.23	40°20'00.228"N	104°25'30.967"W	11.46	
6801.00	81.380	178.610	6434.82	704.64	-591.44	1058.99	40°19'59.363"N	104°25'30.906"W	10.13	
6890.00	87.880	180.100	6443.15	792.77	-679.99	1059.98	40°19'58.488"N	104°25'30.893"W	7.49	
6979.00	90.250	180.550	6444.60	881.15	-768.97	1059.47	40°19'57.609"N	104°25'30.900"W	2.71	
7069.00	90.220	179.000	6444.23	970.63	-858.97	1059.83	40°19'56.720"N	104°25'30.895"W	1.72	
7158.00	90.280	178.280	6443.84	1059.30	-947.94	1061.94	40°19'55.840"N	104°25'30.868"W	0.81	

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7247.00	90.000	177.530	6443.63	1148.05	-1036.88	1065.19	40°19'54.962"N	104°25'30.826"W	0.90	
7337.00	90.150	177.520	6443.51	1237.85	-1126.80	1069.08	40°19'54.073"N	104°25'30.776"W	0.17	
7426.00	90.180	177.530	6443.25	1326.65	-1215.71	1072.92	40°19'53.194"N	104°25'30.726"W	0.04	
7515.00	90.180	177.240	6442.97	1415.46	-1304.62	1076.98	40°19'52.316"N	104°25'30.674"W	0.33	
7605.00	90.340	180.130	6442.56	1505.10	-1394.59	1079.05	40°19'51.427"N	104°25'30.647"W	3.22	
7694.00	90.030	183.380	6442.28	1593.21	-1483.53	1076.32	40°19'50.548"N	104°25'30.682"W	3.67	
7783.00	90.090	184.910	6442.18	1680.72	-1572.30	1069.89	40°19'49.671"N	104°25'30.765"W	1.72	
7872.00	89.850	184.390	6442.23	1768.09	-1661.00	1062.67	40°19'48.794"N	104°25'30.859"W	0.64	
7961.00	90.120	183.400	6442.25	1855.67	-1749.80	1056.63	40°19'47.917"N	104°25'30.937"W	1.15	

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8051.00	90.340	179.950	6441.89	1944.78	-1839.74	1054.00	40°19'47.028"N	104°25'30.971"W	3.84	
8140.00	90.150	176.230	6441.51	2033.50	-1928.68	1056.96	40°19'46.149"N	104°25'30.933"W	4.19	
8230.00	90.220	174.310	6441.22	2123.46	-2018.37	1064.39	40°19'45.263"N	104°25'30.837"W	2.13	
8319.00	89.780	174.370	6441.22	2212.45	-2106.93	1073.16	40°19'44.388"N	104°25'30.724"W	0.50	
8409.00	89.910	176.680	6441.46	2302.40	-2196.65	1080.18	40°19'43.501"N	104°25'30.633"W	2.57	
8498.00	89.850	177.720	6441.65	2391.23	-2285.54	1084.53	40°19'42.623"N	104°25'30.577"W	1.17	
8588.00	89.510	178.660	6442.15	2480.95	-2375.50	1087.37	40°19'41.734"N	104°25'30.540"W	1.11	
8677.00	90.060	179.870	6442.49	2569.52	-2464.49	1088.52	40°19'40.854"N	104°25'30.525"W	1.49	
8766.00	90.280	181.170	6442.22	2657.88	-2553.48	1087.71	40°19'39.975"N	104°25'30.536"W	1.48	
8856.00	90.490	180.920	6441.62	2747.13	-2643.46	1086.07	40°19'39.086"N	104°25'30.557"W	0.36	
8945.00	90.580	181.570	6440.79	2835.35	-2732.44	1084.13	40°19'38.206"N	104°25'30.582"W	0.74	
9035.00	90.280	181.990	6440.11	2924.45	-2822.39	1081.34	40°19'37.318"N	104°25'30.618"W	0.57	
9124.00	90.310	181.550	6439.65	3012.56	-2911.35	1078.59	40°19'36.439"N	104°25'30.654"W	0.50	
9213.00	90.180	180.060	6439.27	3100.86	-3000.33	1077.34	40°19'35.559"N	104°25'30.670"W	1.68	
9303.00	90.250	179.640	6438.93	3190.34	-3090.33	1077.57	40°19'34.670"N	104°25'30.667"W	0.47	
9392.00	90.400	179.570	6438.43	3278.86	-3179.33	1078.19	40°19'33.790"N	104°25'30.659"W	0.19	
9481.00	90.460	178.820	6437.76	3367.44	-3268.32	1079.44	40°19'32.911"N	104°25'30.643"W	0.85	
9571.00	89.750	177.420	6437.60	3457.17	-3358.27	1082.39	40°19'32.022"N	104°25'30.605"W	1.74	
9660.00	91.820	176.930	6436.38	3545.99	-3447.15	1086.78	40°19'31.144"N	104°25'30.548"W	2.39	
9749.00	91.320	176.210	6433.94	3634.84	-3535.95	1092.10	40°19'30.266"N	104°25'30.480"W	0.98	
9839.00	89.540	174.870	6433.26	3724.78	-3625.67	1099.10	40°19'29.380"N	104°25'30.390"W	2.48	
9928.00	90.060	175.700	6433.57	3813.75	-3714.37	1106.41	40°19'28.503"N	104°25'30.295"W	1.10	
10018.00	89.690	177.540	6433.77	3903.62	-3804.21	1111.72	40°19'27.615"N	104°25'30.227"W	2.09	
10107.00	89.780	178.100	6434.18	3992.39	-3893.14	1115.10	40°19'26.737"N	104°25'30.183"W	0.64	
10196.00	90.460	180.790	6434.00	4080.93	-3982.13	1115.97	40°19'25.857"N	104°25'30.172"W	3.12	
10285.00	90.490	181.200	6433.26	4169.20	-4071.11	1114.42	40°19'24.978"N	104°25'30.192"W	0.46	
10374.00	90.430	182.420	6432.54	4257.30	-4160.06	1111.61	40°19'24.099"N	104°25'30.228"W	1.37	
10464.00	90.430	179.620	6431.87	4346.54	-4250.04	1110.01	40°19'23.210"N	104°25'30.249"W	3.11	
10553.00	90.150	181.980	6431.42	4434.85	-4339.02	1108.77	40°19'22.331"N	104°25'30.265"W	2.67	
10642.00	90.370	183.940	6431.01	4522.67	-4427.90	1104.17	40°19'21.452"N	104°25'30.324"W	2.22	
10732.00	90.310	184.410	6430.48	4611.16	-4517.66	1097.62	40°19'20.565"N	104°25'30.409"W	0.53	
10822.00	90.370	183.780	6429.95	4699.67	-4607.42	1091.19	40°19'19.678"N	104°25'30.492"W	0.70	
10911.00	90.180	181.180	6429.52	4787.62	-4696.33	1087.34	40°19'18.800"N	104°25'30.542"W	2.93	
11000.00	90.030	180.560	6429.36	4875.91	-4785.32	1085.99	40°19'17.920"N	104°25'30.559"W	0.72	
11090.00	90.280	178.960	6429.11	4965.40	-4875.32	1086.37	40°19'17.031"N	104°25'30.555"W	1.80	
11180.00	90.430	177.250	6428.55	5055.13	-4965.26	1089.34	40°19'16.142"N	104°25'30.516"W	1.91	

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11269.00	89.600	176.010	6428.53	5144.00	-5054.11	1094.57	40°19'15.264"N	104°25'30.449"W	1.68	
11359.00	89.600	175.860	6429.16	5233.93	-5143.88	1100.95	40°19'14.377"N	104°25'30.366"W	0.17	
11448.00	89.820	177.680	6429.61	5322.80	-5232.73	1105.97	40°19'13.499"N	104°25'30.302"W	2.06	
11537.00	89.940	178.520	6429.80	5411.53	-5321.68	1108.92	40°19'12.620"N	104°25'30.264"W	0.95	
11626.00	90.280	180.360	6429.62	5500.07	-5410.67	1109.79	40°19'11.741"N	104°25'30.253"W	2.10	
11716.00	90.430	181.740	6429.07	5589.32	-5500.65	1108.14	40°19'10.852"N	104°25'30.274"W	1.54	
11805.00	89.910	181.220	6428.80	5677.50	-5589.62	1105.84	40°19'09.972"N	104°25'30.304"W	0.83	
11894.00	90.580	180.890	6428.42	5765.76	-5678.61	1104.20	40°19'09.093"N	104°25'30.325"W	0.84	
11984.00	89.970	180.820	6427.99	5855.05	-5768.60	1102.86	40°19'08.204"N	104°25'30.342"W	0.68	

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12073.00	90.220	179.780	6427.84	5943.45	-5857.59	1102.39	40°19'07.324"N	104°25'30.348"W	1.20	
12162.00	89.850	179.440	6427.79	6031.97	-5946.59	1103.00	40°19'06.445"N	104°25'30.340"W	0.56	
12252.00	90.280	178.110	6427.69	6121.61	-6036.57	1104.92	40°19'05.556"N	104°25'30.316"W	1.55	
12341.00	90.250	177.500	6427.28	6210.38	-6125.50	1108.33	40°19'04.677"N	104°25'30.272"W	0.69	
12430.00	89.910	178.420	6427.15	6299.13	-6214.44	1111.50	40°19'03.798"N	104°25'30.231"W	1.10	
12520.00	90.310	179.050	6426.98	6388.77	-6304.42	1113.49	40°19'02.909"N	104°25'30.205"W	0.83	
12609.00	90.060	179.680	6426.69	6477.33	-6393.41	1114.47	40°19'02.030"N	104°25'30.193"W	0.76	
12699.00	90.150	180.170	6426.53	6566.80	-6483.41	1114.59	40°19'01.140"N	104°25'30.191"W	0.55	
12788.00	89.940	179.600	6426.46	6655.27	-6572.41	1114.77	40°19'00.261"N	104°25'30.189"W	0.68	
12878.00	89.970	180.050	6426.53	6744.75	-6662.41	1115.04	40°18'59.371"N	104°25'30.185"W	0.50	
12967.00	89.970	179.390	6426.57	6833.26	-6751.41	1115.48	40°18'58.492"N	104°25'30.180"W	0.74	
13056.00	90.220	179.120	6426.43	6921.83	-6840.40	1116.64	40°18'57.612"N	104°25'30.165"W	0.41	
13145.00	90.060	179.650	6426.21	7010.39	-6929.40	1117.59	40°18'56.733"N	104°25'30.153"W	0.62	
13235.00	90.150	180.260	6426.04	7099.85	-7019.40	1117.66	40°18'55.844"N	104°25'30.152"W	0.69	
13324.00	90.030	180.820	6425.90	7188.21	-7108.39	1116.82	40°18'54.964"N	104°25'30.163"W	0.64	
13413.00	90.310	180.320	6425.64	7276.56	-7197.39	1115.94	40°18'54.085"N	104°25'30.174"W	0.64	
13503.00	90.550	179.670	6424.96	7366.01	-7287.38	1115.95	40°18'53.196"N	104°25'30.174"W	0.77	
13592.00	90.490	179.880	6424.16	7454.50	-7376.38	1116.30	40°18'52.316"N	104°25'30.170"W	0.25	
13681.00	90.400	179.160	6423.46	7543.03	-7465.37	1117.04	40°18'51.437"N	104°25'30.160"W	0.82	
13771.00	89.910	178.100	6423.22	7632.69	-7555.35	1119.19	40°18'50.548"N	104°25'30.132"W	1.30	
13860.00	90.000	178.560	6423.29	7721.40	-7644.31	1121.79	40°18'49.668"N	104°25'30.099"W	0.53	
13949.00	90.090	177.460	6423.22	7810.14	-7733.25	1124.88	40°18'48.790"N	104°25'30.059"W	1.24	
14039.00	90.280	176.370	6422.93	7900.00	-7823.12	1129.72	40°18'47.901"N	104°25'29.997"W	1.23	
14128.00	90.280	175.680	6422.50	7988.92	-7911.90	1135.89	40°18'47.024"N	104°25'29.917"W	0.78	
14217.00	90.220	175.870	6422.11	8077.86	-8000.66	1142.45	40°18'46.147"N	104°25'29.832"W	0.22	
14307.00	90.000	178.990	6421.93	8167.65	-8090.56	1146.48	40°18'45.259"N	104°25'29.780"W	3.48	
14396.00	90.120	179.970	6421.84	8256.19	-8179.56	1147.29	40°18'44.379"N	104°25'29.770"W	1.11	
14485.00	90.060	179.460	6421.70	8344.70	-8268.55	1147.73	40°18'43.500"N	104°25'29.764"W	0.58	
14575.00	90.060	179.130	6421.61	8434.26	-8358.55	1148.84	40°18'42.610"N	104°25'29.750"W	0.37	
14664.00	90.120	179.500	6421.47	8522.83	-8447.54	1149.90	40°18'41.731"N	104°25'29.736"W	0.42	
14753.00	90.280	180.060	6421.16	8611.33	-8536.54	1150.25	40°18'40.852"N	104°25'29.732"W	0.65	
14843.00	90.460	179.750	6420.58	8700.79	-8626.54	1150.39	40°18'39.962"N	104°25'29.730"W	0.40	
14932.00	90.030	180.370	6420.20	8789.24	-8715.53	1150.30	40°18'39.083"N	104°25'29.731"W	0.85	
15022.00	90.090	181.400	6420.10	8878.52	-8805.52	1148.91	40°18'38.194"N	104°25'29.749"W	1.15	
15111.00	90.120	181.560	6419.94	8966.69	-8894.49	1146.61	40°18'37.314"N	104°25'29.779"W	0.18	
15200.00	90.090	180.990	6419.77	9054.91	-8983.47	1144.63	40°18'36.435"N	104°25'29.805"W	0.64	

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15289.00	90.310	180.150	6419.46	9143.26	-9072.46	1143.75	40°18'35.556"N	104°25'29.816"W	0.98	
15379.00	89.970	179.840	6419.24	9232.71	-9162.46	1143.75	40°18'34.666"N	104°25'29.816"W	0.51	
15468.00	89.910	178.460	6419.34	9321.31	-9251.45	1145.08	40°18'33.787"N	104°25'29.799"W	1.55	
15557.00	90.740	178.880	6418.83	9409.96	-9340.43	1147.14	40°18'32.908"N	104°25'29.773"W	1.05	
15647.00	90.430	181.960	6417.91	9499.32	-9430.41	1146.48	40°18'32.019"N	104°25'29.781"W	3.44	
15736.00	90.220	180.140	6417.41	9587.58	-9519.39	1144.85	40°18'31.139"N	104°25'29.802"W	2.06	
15825.00	90.120	178.280	6417.14	9676.16	-9608.37	1146.08	40°18'30.260"N	104°25'29.787"W	2.09	
15914.00	90.680	177.500	6416.52	9764.92	-9697.31	1149.35	40°18'29.381"N	104°25'29.744"W	1.08	
16004.00	90.860	178.920	6415.31	9854.62	-9787.26	1152.17	40°18'28.492"N	104°25'29.708"W	1.59	

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16093.00	91.020	177.960	6413.85	9943.30	-9876.21	1154.59	40°18'27.613"N	104°25'29.677"W	1.09	
16182.00	89.970	178.390	6413.08	10032.02	-9965.16	1157.42	40°18'26.734"N	104°25'29.640"W	1.27	
16271.00	89.820	179.710	6413.25	10120.63	-10054.15	1158.90	40°18'25.855"N	104°25'29.621"W	1.49	
16361.00	89.970	180.620	6413.41	10210.05	-10144.14	1158.64	40°18'24.966"N	104°25'29.625"W	1.02	
16450.00	90.680	180.730	6412.91	10298.38	-10233.14	1157.59	40°18'24.086"N	104°25'29.638"W	0.81	
16539.00	90.580	182.550	6411.93	10386.51	-10322.09	1155.04	40°18'23.207"N	104°25'29.671"W	2.05	
16628.00	90.220	184.580	6411.31	10474.18	-10410.91	1149.51	40°18'22.329"N	104°25'29.743"W	2.32	LAST BHGE MONOBORE SURVEY
16659.00	90.220	184.580	6411.19	10504.62	-10441.81	1147.03	40°18'22.024"N	104°25'29.775"W	0.00	PROJ TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: 70 RANCH 10-12-3L AWB Ref Wellpath: 70 RANCH 10-12-3L 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	1562.00	1539.00	23.00	1561.95	0.00	0.00	-1.19	-3.71
9.625in Casing Surface	23.00	1554.00	1531.00	23.00	1553.95	0.00	0.00	-1.15	-3.70
8.5in Open Hole	1562.00	16659.00	15097.00	1561.95	6411.19	-1.19	-3.71	-10441.81	1147.03

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T04N-R63W	13.00	-14.57	-248.12	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.10-T04N-R63W	13.00	-14.57	-248.12	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
SEC.15-T04N-R63W	13.00	-14.57	-248.12	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
460 SETBACKS	6385.00	-14.57	-248.12	3298302.44	1366586.40	40°20'05.064"N	104°25'47.784"W	polygon
70 RANCH 10-12-3L BHL (470'FNL & 2423'FWL,SEC.15)	6422.50	-10353.58	1149.10	3299824.35	1356265.48	40°18'22.896"N	104°25'29.748"W	point
70 RANCH 10-12-3L LP (470'FNL & 2412'FWL,SEC.10)	6447.50	-673.95	1065.01	3299623.38	1365942.96	40°19'58.548"N	104°25'30.828"W	point

WELLPATH COMPOSITION - Ref Wellbore: 70 RANCH 10-12-3L AWB Ref Wellpath: 70 RANCH 10-12-3L 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) <218-1471>	70 RANCH 10-12-3L AWB
1471.00	16628.00	BHI AutoTrak Curve (Short)	8.5" Monobore AutoTrak Curve (Short) <1565-16628>	70 RANCH 10-12-3L AWB
16628.00	16659.00	Blind Drilling (std)	Projection to bit	70 RANCH 10-12-3L AWB

Actual Wellpath Report

70 RANCH 10-12-3L AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	CONFLUENCE RESOURCES	Slot	SLOT#03 70 RANCH 10-12-3L (260'FSL & 1336'FWL,SEC.03)
Area	COLORADO	Well	70 RANCH 10-12-3L
Field	WELD COUNTY (NAD83, TRUE NORTH)	Wellbore	70 RANCH 10-12-3L AWB
Facility	SEC.03-T04N-R63W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1471.00	0.260	235.580	1470.95	TIE ONTO BHGE SURFACE SURVEYS
1565.00	0.320	186.330	1564.95	FIRST BHGE MONOBORE SURVEY
16628.00	90.220	184.580	6411.31	LAST BHGE MONOBORE SURVEY
16659.00	90.220	184.580	6411.19	PROJ TO BIT