



K.P KAUFMAN

SURVEY REPORT

UPRR 42 PAN AV #1

4/15/2015



The **Ultimate Partner** In Wellbore Placement

CUSTOMER K.P Kaufman
PROJECT UPRR 42 PAN AM AV #1
FIELD Wattenberg
DEFINITIVE SURVEY None

SDI JOB NO. 272773
SDI DISTRICT Casper
SDI KIT/UNIT

SITE INFORMATION

Site Name UPRR 42 Pan AM AV #1
Lat/Long 40.06338° N, 104.94009° W
Northing
Easting

Section NWSW 7
Township 1N
Range 67W

MAP INFORMATION

North Reference True North
Grid Correction
System
Datum
Map Zone



WELL INFORMATION

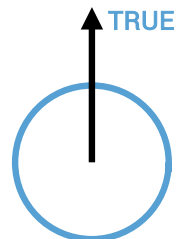
Lat/Long 40.06338° N, 104.94009° W
Northing
Easting
UWI 05-123-12557 UWBI 05-123-12557

DEPTH AND ELEVATION REFERENCE

Ground Level 5089 ft above Mean Sea Level
Reference Datum Ground Level
Reference Height 0 ft above G.L.
Reference Elevation 5089 ft

VERTICAL SECTION REFERENCE

+N/-S 0 ft
+E/-W 0 ft
Proposal Direction
Calculation Method Minimum Curvature



LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity 999.027 mG [computed]

WELL NOTES

Keeper gyro wireline survey in 5.5" casing. Survey from surface to 8073' MD. All depths reference ground level

OPERATORS

P Holbrook

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
89.34	0.10	134.00	89.34	-0.06	-0.05	0.05	0.11	0.08	134.00
126.52	0.19	106.82	126.52	-0.11	-0.09	0.14	0.30	0.16	124.22
152.16	0.03	295.71	152.16	-0.13	-0.10	0.17	0.85	0.20	120.86
175.05	0.02	122.17	175.05	-0.13	-0.10	0.17	0.21	0.20	121.03
201.64	0.11	105.85	201.64	-0.14	-0.11	0.20	0.35	0.23	119.32
225.70	0.09	117.46	225.70	-0.16	-0.13	0.24	0.14	0.27	118.02
251.87	0.07	212.95	251.86	-0.19	-0.15	0.25	0.44	0.29	120.94
277.08	0.08	229.33	277.08	-0.21	-0.17	0.23	0.11	0.28	127.34
300.67	0.16	210.32	300.67	-0.24	-0.21	0.20	0.36	0.29	137.12
325.64	0.24	219.15	325.64	-0.30	-0.28	0.15	0.34	0.32	152.60
352.38	0.29	200.01	352.38	-0.40	-0.39	0.09	0.38	0.40	167.28
378.68	0.36	213.10	378.68	-0.52	-0.52	0.02	0.38	0.52	177.75
402.46	0.30	200.71	402.46	-0.62	-0.64	-0.04	0.39	0.64	183.73
426.88	0.26	196.99	426.88	-0.73	-0.75	-0.08	0.17	0.76	186.09
450.32	0.29	204.62	450.32	-0.82	-0.86	-0.12	0.21	0.87	188.01
475.62	0.29	204.24	475.62	-0.93	-0.97	-0.17	0.03	0.99	190.10
503.80	0.28	204.07	503.79	-1.04	-1.10	-0.23	0.03	1.12	191.81
528.35	0.27	206.60	528.34	-1.14	-1.20	-0.28	0.06	1.24	193.07
551.96	0.29	218.88	551.96	-1.22	-1.30	-0.34	0.28	1.34	194.74
576.39	0.31	215.82	576.39	-1.31	-1.40	-0.42	0.08	1.46	196.66
600.96	0.33	212.60	600.96	-1.41	-1.51	-0.50	0.11	1.59	198.13
629.40	0.38	193.77	629.39	-1.56	-1.67	-0.56	0.46	1.77	198.55
652.92	0.41	191.49	652.91	-1.71	-1.83	-0.60	0.14	1.93	198.05
677.49	0.43	191.44	677.49	-1.88	-2.01	-0.63	0.05	2.11	197.49
701.93	0.40	200.31	701.92	-2.04	-2.18	-0.68	0.28	2.29	197.35
726.10	0.43	187.51	726.10	-2.20	-2.35	-0.72	0.40	2.46	197.09
750.92	0.40	189.85	750.91	-2.37	-2.53	-0.75	0.13	2.64	196.51
775.80	0.36	184.24	775.79	-2.53	-2.69	-0.77	0.24	2.80	195.97
804.52	0.39	179.50	804.51	-2.71	-2.88	-0.78	0.16	2.98	195.08
828.47	0.35	177.04	828.46	-2.87	-3.04	-0.77	0.18	3.13	194.26
853.27	0.38	188.82	853.26	-3.02	-3.20	-0.78	0.33	3.29	193.73

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
878.90	0.47	187.58	878.89	-3.20	-3.39	-0.81	0.32	3.48	193.42
902.76	0.39	194.39	902.75	-3.37	-3.56	-0.84	0.40	3.66	193.29
927.70	0.37	199.12	927.69	-3.52	-3.72	-0.89	0.15	3.82	193.43
952.65	0.39	185.10	952.64	-3.67	-3.88	-0.92	0.39	3.98	193.37
976.55	0.41	190.64	976.54	-3.83	-4.04	-0.94	0.17	4.15	193.15
1001.52	0.40	196.54	1001.51	-3.99	-4.21	-0.99	0.17	4.33	193.17
1026.51	0.36	182.33	1026.49	-4.14	-4.37	-1.01	0.41	4.49	193.05
1050.42	0.33	193.35	1050.40	-4.28	-4.51	-1.03	0.31	4.63	192.88
1075.45	0.35	198.75	1075.43	-4.41	-4.66	-1.07	0.17	4.78	192.98
1100.46	0.34	198.01	1100.44	-4.54	-4.80	-1.12	0.05	4.93	193.14
1129.46	0.26	210.18	1129.44	-4.67	-4.94	-1.18	0.35	5.08	193.44
1153.43	0.22	211.27	1153.41	-4.75	-5.02	-1.23	0.16	5.17	193.77
1178.62	0.33	227.55	1178.60	-4.82	-5.11	-1.31	0.52	5.28	194.37
1203.58	0.26	223.48	1203.57	-4.90	-5.20	-1.40	0.27	5.39	195.08
1227.62	0.25	215.71	1227.60	-4.97	-5.29	-1.47	0.16	5.49	195.55
1252.72	0.33	255.58	1252.70	-5.01	-5.35	-1.57	0.85	5.58	196.39
1277.85	0.30	261.82	1277.83	-5.01	-5.38	-1.71	0.20	5.64	197.63
1301.92	0.29	264.18	1301.90	-5.01	-5.39	-1.83	0.06	5.69	198.75
1327.06	0.36	272.97	1327.04	-4.99	-5.39	-1.97	0.35	5.74	200.09
1352.18	0.39	262.10	1352.16	-4.97	-5.40	-2.14	0.31	5.81	201.58
1376.23	0.41	262.63	1376.21	-4.96	-5.42	-2.30	0.06	5.89	203.01
1401.08	0.37	263.65	1401.06	-4.95	-5.44	-2.47	0.16	5.98	204.40
1425.89	0.40	262.54	1425.87	-4.95	-5.46	-2.63	0.12	6.07	205.74
1453.79	0.35	263.64	1453.77	-4.94	-5.49	-2.82	0.15	6.17	207.17
1477.69	0.28	269.14	1477.67	-4.92	-5.49	-2.95	0.33	6.24	208.21
1503.26	0.36	270.48	1503.24	-4.90	-5.49	-3.09	0.31	6.30	209.36
1527.32	0.44	265.50	1527.30	-4.88	-5.50	-3.26	0.38	6.39	210.65
1551.99	0.42	264.89	1551.97	-4.86	-5.52	-3.45	0.09	6.51	211.99
1577.05	0.44	260.75	1577.03	-4.86	-5.54	-3.63	0.14	6.63	213.26
1601.03	0.36	263.27	1601.01	-4.85	-5.56	-3.80	0.35	6.74	214.33
1625.75	0.39	263.87	1625.73	-4.84	-5.58	-3.96	0.11	6.84	215.35
1650.69	0.36	267.70	1650.67	-4.83	-5.59	-4.12	0.14	6.95	216.39

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DISTANCE ft	CLOSURE DIRECTION deg
1679.02	0.38	272.53	1678.99	-4.80	-5.59	-4.31	0.13	7.06	217.59
1703.66	0.41	271.87	1703.63	-4.76	-5.59	-4.48	0.12	7.16	218.71
1728.52	0.41	268.35	1728.49	-4.73	-5.59	-4.66	0.10	7.27	219.82
1752.79	0.41	268.07	1752.76	-4.71	-5.59	-4.83	0.03	7.39	220.83
1777.79	0.40	268.73	1777.76	-4.68	-5.60	-5.01	0.05	7.51	221.81
1802.45	0.40	275.76	1802.42	-4.65	-5.59	-5.18	0.20	7.62	222.81
1826.75	0.33	283.62	1826.72	-4.60	-5.57	-5.33	0.36	7.71	223.76
1851.54	0.37	287.14	1851.51	-4.53	-5.53	-5.48	0.19	7.78	224.74
1876.73	0.36	293.75	1876.70	-4.45	-5.47	-5.63	0.17	7.85	225.81
1900.85	0.39	291.05	1900.82	-4.37	-5.41	-5.77	0.13	7.91	226.85
1925.85	0.36	284.88	1925.82	-4.29	-5.36	-5.92	0.20	7.99	227.86
1950.74	0.26	292.30	1950.70	-4.23	-5.32	-6.05	0.41	8.06	228.69
1975.20	0.32	306.81	1975.17	-4.15	-5.26	-6.16	0.39	8.10	229.53
2000.26	0.30	307.31	2000.22	-4.05	-5.17	-6.27	0.10	8.13	230.46
2025.26	0.35	296.86	2025.23	-3.96	-5.10	-6.39	0.31	8.17	231.39
2053.78	0.35	299.57	2053.75	-3.85	-5.02	-6.54	0.06	8.24	232.51
2079.00	0.37	314.02	2078.96	-3.74	-4.92	-6.67	0.37	8.29	233.56
2103.62	0.35	269.55	2103.59	-3.66	-4.87	-6.80	1.11	8.36	234.40
2127.87	0.38	313.16	2127.83	-3.59	-4.81	-6.93	1.12	8.44	235.22
2153.14	0.49	327.59	2153.11	-3.42	-4.66	-7.05	0.63	8.45	236.51
2178.48	0.41	318.68	2178.44	-3.24	-4.50	-7.17	0.43	8.47	237.87
2202.83	0.54	321.08	2202.79	-3.07	-4.35	-7.30	0.53	8.50	239.22
2228.31	0.35	305.30	2228.27	-2.91	-4.21	-7.44	0.87	8.55	240.50
2250.15	0.45	321.15	2250.11	-2.78	-4.10	-7.55	0.67	8.59	241.47
2275.80	0.48	322.79	2275.76	-2.60	-3.94	-7.68	0.14	8.63	242.84
2300.26	0.57	333.14	2300.22	-2.39	-3.75	-7.79	0.54	8.65	244.32
2325.74	0.54	327.73	2325.69	-2.16	-3.53	-7.92	0.25	8.67	245.95
2351.20	0.70	333.13	2351.16	-1.90	-3.29	-8.05	0.68	8.70	247.76
2376.01	0.69	329.23	2375.96	-1.62	-3.03	-8.20	0.19	8.74	249.72
2401.56	0.58	330.71	2401.51	-1.35	-2.78	-8.34	0.45	8.79	251.55
2427.15	0.64	332.63	2427.10	-1.09	-2.54	-8.47	0.25	8.84	253.29
2453.61	0.83	348.36	2453.56	-0.76	-2.22	-8.57	1.04	8.86	255.47

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
2478.20	0.54	322.82	2478.15	-0.48	-1.95	-8.68	1.68	8.90	257.31
2503.97	0.68	334.76	2503.91	-0.22	-1.72	-8.82	0.73	8.99	258.98
2529.71	0.69	335.27	2529.66	0.08	-1.44	-8.95	0.03	9.07	260.87
2551.05	0.67	335.88	2550.99	0.32	-1.21	-9.06	0.08	9.14	262.40
2576.93	0.68	342.46	2576.87	0.62	-0.92	-9.16	0.30	9.21	264.26
2602.35	0.72	335.80	2602.29	0.93	-0.63	-9.27	0.34	9.30	266.10
2627.28	0.67	342.55	2627.22	1.22	-0.35	-9.38	0.37	9.39	267.86
2653.09	0.76	326.69	2653.02	1.53	-0.06	-9.52	0.83	9.52	269.62
2678.90	0.72	334.09	2678.84	1.84	0.22	-9.69	0.40	9.69	271.33
2703.61	0.70	341.65	2703.54	2.14	0.51	-9.80	0.39	9.81	272.96
2725.12	0.65	341.17	2725.05	2.39	0.75	-9.88	0.24	9.91	274.32
2754.87	0.70	337.71	2754.80	2.73	1.07	-10.00	0.24	10.06	276.13
2775.49	0.65	337.41	2775.42	2.97	1.30	-10.10	0.28	10.18	277.33
2801.02	0.62	340.63	2800.94	3.24	1.56	-10.20	0.18	10.32	278.70
2825.46	0.66	345.35	2825.38	3.51	1.82	-10.28	0.26	10.44	280.05
2851.03	0.62	351.37	2850.95	3.80	2.10	-10.34	0.30	10.55	281.48
2876.37	0.64	342.23	2876.29	4.08	2.37	-10.40	0.41	10.67	282.84
2901.14	0.61	342.12	2901.06	4.34	2.63	-10.48	0.12	10.81	284.08
2926.72	0.56	342.74	2926.63	4.60	2.88	-10.56	0.20	10.95	285.25
2952.06	0.59	346.08	2951.98	4.86	3.13	-10.63	0.18	11.08	286.39
2976.83	0.60	340.69	2976.74	5.11	3.37	-10.70	0.23	11.22	287.49
3002.42	0.57	345.51	3002.33	5.37	3.62	-10.78	0.22	11.37	288.57
3027.78	0.54	346.28	3027.70	5.62	3.86	-10.84	0.12	11.51	289.61
3052.51	0.53	351.63	3052.42	5.85	4.09	-10.89	0.21	11.63	290.59
3078.11	0.58	348.64	3078.02	6.10	4.33	-10.93	0.23	11.76	291.63
3103.48	0.58	344.20	3103.38	6.36	4.58	-10.99	0.18	11.91	292.65
3128.42	0.61	347.93	3128.33	6.62	4.84	-11.05	0.18	12.06	293.64
3153.75	0.57	348.07	3153.66	6.87	5.09	-11.10	0.15	12.22	294.63
3179.10	0.61	350.08	3179.00	7.14	5.35	-11.15	0.18	12.37	295.61
3203.81	0.59	353.22	3203.72	7.39	5.60	-11.19	0.15	12.52	296.59
3225.27	0.61	354.75	3225.17	7.62	5.83	-11.22	0.11	12.64	297.46
3250.63	0.60	348.07	3250.53	7.89	6.09	-11.26	0.28	12.80	298.42

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
3275.50	0.58	352.68	3275.40	8.14	6.34	-11.30	0.21	12.96	299.31
3300.99	0.63	345.44	3300.89	8.41	6.61	-11.35	0.37	13.13	300.20
3326.36	0.68	344.08	3326.25	8.70	6.89	-11.43	0.20	13.34	301.08
3351.36	0.67	343.71	3351.25	8.99	7.17	-11.51	0.05	13.56	301.92
3376.72	0.67	346.86	3376.61	9.29	7.46	-11.58	0.14	13.77	302.77
3402.06	0.68	347.78	3401.95	9.58	7.75	-11.65	0.08	13.99	303.63
3426.77	0.72	346.55	3426.66	9.89	8.04	-11.72	0.14	14.21	304.47
3451.94	0.72	342.81	3451.82	10.20	8.34	-11.80	0.19	14.45	305.27
3476.84	0.63	349.91	3476.72	10.49	8.63	-11.87	0.47	14.67	306.02
3501.51	0.66	344.89	3501.40	10.77	8.90	-11.93	0.26	14.88	306.72
3526.55	0.62	343.31	3526.43	11.05	9.17	-12.01	0.19	15.11	307.37
3551.81	0.57	349.51	3551.69	11.31	9.42	-12.07	0.32	15.31	307.98
3576.26	0.65	344.63	3576.14	11.57	9.68	-12.13	0.39	15.51	308.59
3601.32	0.66	350.70	3601.20	11.85	9.96	-12.19	0.28	15.74	309.25
3626.36	0.67	351.07	3626.24	12.14	10.24	-12.23	0.04	15.96	309.94
3651.08	0.68	344.98	3650.95	12.44	10.53	-12.29	0.30	16.19	310.58
3676.13	0.64	351.24	3676.00	12.73	10.81	-12.35	0.34	16.42	311.19
3701.90	0.62	351.53	3701.77	13.01	11.09	-12.40	0.10	16.63	311.82
3727.21	0.66	351.23	3727.08	13.29	11.37	-12.44	0.16	16.85	312.43
3751.76	0.64	353.85	3751.63	13.57	11.65	-12.48	0.13	17.07	313.03
3776.69	0.61	355.20	3776.56	13.84	11.92	-12.50	0.14	17.27	313.63
3801.99	0.65	359.15	3801.85	14.12	12.20	-12.52	0.23	17.48	314.26
3826.42	0.66	357.37	3826.29	14.39	12.48	-12.52	0.09	17.68	314.89
3851.76	0.65	356.50	3851.62	14.68	12.77	-12.54	0.06	17.89	315.51
3876.84	0.66	8.18	3876.70	14.96	13.05	-12.53	0.54	18.09	316.17
3901.33	0.73	6.48	3901.19	15.25	13.35	-12.49	0.30	18.28	316.90
3926.45	0.74	7.54	3926.31	15.56	13.67	-12.45	0.06	18.49	317.67
3951.92	0.74	14.05	3951.78	15.86	13.99	-12.39	0.33	18.69	318.47
3976.32	0.77	12.25	3976.17	16.16	14.30	-12.32	0.17	18.87	319.27
4001.42	0.83	16.43	4001.27	16.48	14.64	-12.23	0.34	19.08	320.14
4026.76	0.84	17.44	4026.61	16.81	15.00	-12.12	0.06	19.28	321.06
4051.27	0.91	19.65	4051.12	17.14	15.35	-12.00	0.32	19.49	321.98

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4076.21	0.96	21.72	4076.05	17.49	15.73	-11.86	0.26	19.70	323.00
4101.19	0.94	18.78	4101.03	17.85	16.12	-11.71	0.22	19.93	324.00
4125.35	0.96	23.87	4125.19	18.19	16.49	-11.57	0.36	20.15	324.95
4150.09	1.08	25.23	4149.92	18.56	16.89	-11.39	0.49	20.37	326.02
4175.12	1.04	19.30	4174.94	18.95	17.32	-11.21	0.47	20.63	327.09
4203.37	1.05	22.93	4203.19	19.39	17.80	-11.03	0.24	20.94	328.22
4227.91	1.14	29.16	4227.73	19.77	18.22	-10.82	0.61	21.19	329.29
4250.11	1.06	26.76	4249.92	20.11	18.59	-10.62	0.39	21.41	330.27
4275.44	1.09	27.25	4275.25	20.49	19.02	-10.40	0.11	21.68	331.32
4289.12	1.02	24.01	4288.93	20.69	19.24	-10.29	0.65	21.82	331.86
4299.29	0.74	1.61	4299.10	20.83	19.39	-10.26	4.33	21.94	332.13
4324.73	1.10	27.97	4324.53	21.19	19.77	-10.14	2.13	22.22	332.86
4349.60	1.12	29.14	4349.40	21.57	20.19	-9.91	0.13	22.49	333.87
4371.16	1.14	28.89	4370.96	21.90	20.57	-9.70	0.11	22.74	334.75
4395.55	1.15	27.51	4395.34	22.28	21.00	-9.47	0.13	23.03	335.72
4421.33	1.06	26.76	4421.12	22.68	21.44	-9.24	0.37	23.35	336.68
4446.97	1.07	27.02	4446.74	23.07	21.86	-9.03	0.05	23.65	337.56
4471.77	0.92	30.97	4471.54	23.40	22.24	-8.82	0.66	23.93	338.37
4497.91	0.79	32.32	4497.68	23.70	22.57	-8.62	0.52	24.16	339.11
4523.92	0.58	37.90	4523.69	23.92	22.83	-8.44	0.85	24.34	339.71
4548.79	0.43	46.82	4548.56	24.05	22.99	-8.29	0.66	24.44	340.16
4574.74	0.33	49.75	4574.51	24.14	23.10	-8.17	0.42	24.51	340.53
4596.43	0.16	47.66	4596.20	24.19	23.17	-8.10	0.76	24.54	340.73
4621.42	0.12	57.77	4621.19	24.22	23.20	-8.05	0.20	24.56	340.87
4647.21	0.12	296.86	4646.98	24.25	23.23	-8.05	0.81	24.59	340.88
4673.04	0.10	289.90	4672.81	24.28	23.25	-8.10	0.11	24.62	340.80
4698.24	0.13	315.40	4698.01	24.31	23.28	-8.14	0.24	24.66	340.73
4724.19	0.15	283.62	4723.96	24.35	23.31	-8.19	0.31	24.70	340.63
4749.80	0.14	296.55	4749.56	24.38	23.33	-8.25	0.14	24.75	340.52
4774.66	0.16	301.73	4774.43	24.42	23.36	-8.31	0.08	24.80	340.42
4796.00	0.27	281.58	4795.76	24.46	23.39	-8.39	0.62	24.85	340.27
4821.59	0.20	283.92	4821.36	24.50	23.41	-8.49	0.28	24.90	340.07

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS %/100ft	CLOSURE DISTANCE ft	CLOSURE DIRECTION deg
4846.29	0.21	298.12	4846.06	24.54	23.44	-8.57	0.21	24.96	339.92
4871.96	0.23	281.95	4871.72	24.59	23.48	-8.66	0.26	25.02	339.74
4897.51	0.35	288.44	4897.28	24.65	23.51	-8.79	0.47	25.10	339.50
4922.34	0.33	290.77	4922.11	24.72	23.56	-8.93	0.11	25.20	339.24
4948.02	0.34	297.79	4947.79	24.81	23.62	-9.07	0.17	25.30	339.00
4973.45	0.37	291.20	4973.21	24.89	23.69	-9.21	0.18	25.41	338.76
4998.39	0.38	286.90	4998.15	24.97	23.74	-9.36	0.13	25.52	338.48
5023.92	0.36	294.76	5023.69	25.05	23.80	-9.52	0.22	25.63	338.20
5049.45	0.21	300.36	5049.21	25.13	23.86	-9.63	0.60	25.73	338.02
5074.33	0.19	326.94	5074.10	25.20	23.91	-9.69	0.38	25.80	337.94
5099.72	0.22	326.65	5099.48	25.28	23.99	-9.74	0.10	25.89	337.90
5121.78	0.17	337.93	5121.54	25.35	24.06	-9.78	0.27	25.97	337.88
5146.54	0.21	332.17	5146.30	25.43	24.13	-9.81	0.16	26.05	337.87
5172.04	0.19	343.50	5171.81	25.52	24.21	-9.85	0.16	26.14	337.87
5197.64	0.16	345.87	5197.40	25.60	24.29	-9.87	0.13	26.22	337.89
5222.33	0.20	37.84	5222.09	25.66	24.36	-9.85	0.66	26.27	337.98
5247.61	0.21	48.62	5247.37	25.71	24.42	-9.79	0.15	26.31	338.16
5273.08	0.26	55.46	5272.84	25.76	24.49	-9.71	0.22	26.34	338.38
5297.48	0.26	40.91	5297.25	25.82	24.56	-9.63	0.27	26.38	338.60
5323.14	0.25	54.55	5322.90	25.88	24.64	-9.54	0.24	26.42	338.83
5348.79	0.23	46.21	5348.55	25.94	24.70	-9.46	0.18	26.45	339.05
5373.45	0.19	43.54	5373.22	25.99	24.77	-9.39	0.14	26.49	339.23
5398.65	0.27	73.40	5398.42	26.02	24.82	-9.31	0.57	26.50	339.44
5424.07	0.25	73.09	5423.83	26.04	24.85	-9.19	0.09	26.50	339.69
5448.63	0.26	67.69	5448.39	26.06	24.89	-9.09	0.11	26.49	339.93
5474.54	0.34	73.42	5474.30	26.08	24.93	-8.96	0.33	26.49	340.23
5495.98	0.33	75.67	5495.74	26.09	24.96	-8.84	0.09	26.48	340.50
5520.42	0.28	73.51	5520.18	26.10	25.00	-8.71	0.22	26.47	340.78
5549.88	0.20	62.44	5549.64	26.13	25.04	-8.60	0.30	26.48	341.05
5571.14	0.11	59.94	5570.90	26.15	25.07	-8.55	0.42	26.49	341.17
5595.66	0.10	46.00	5595.42	26.17	25.10	-8.51	0.12	26.50	341.27
5624.91	0.07	28.19	5624.67	26.20	25.13	-8.49	0.15	26.52	341.34

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DISTANCE ft	CLOSURE DIRECTION deg
5646.24	0.07	76.60	5645.99	26.21	25.14	-8.47	0.26	26.53	341.39
5670.50	0.04	29.03	5670.26	26.21	25.16	-8.45	0.21	26.54	341.43
5699.86	0.12	48.76	5699.62	26.24	25.18	-8.42	0.29	26.55	341.51
5720.96	0.04	29.72	5720.72	26.26	25.21	-8.40	0.39	26.57	341.57
5745.56	0.09	243.37	5745.32	26.26	25.20	-8.41	0.54	26.57	341.54
5774.91	0.09	272.40	5774.67	26.25	25.19	-8.46	0.16	26.58	341.44
5795.95	0.03	333.68	5795.71	26.26	25.20	-8.48	0.38	26.59	341.41
5820.38	0.07	263.67	5820.13	26.27	25.20	-8.50	0.28	26.60	341.37
5849.57	0.06	257.16	5849.32	26.27	25.20	-8.53	0.06	26.60	341.30
5874.72	0.14	271.51	5874.48	26.27	25.20	-8.57	0.33	26.61	341.22
5899.94	0.07	297.95	5899.70	26.29	25.20	-8.61	0.32	26.64	341.13
5924.47	0.18	265.04	5924.23	26.30	25.21	-8.66	0.51	26.66	341.03
5946.49	0.15	255.62	5946.24	26.30	25.20	-8.73	0.17	26.67	340.90
5971.51	0.13	277.73	5971.27	26.31	25.19	-8.79	0.23	26.68	340.77
5997.39	0.16	268.33	5997.15	26.32	25.20	-8.85	0.15	26.70	340.65
6023.28	0.14	260.16	6023.04	26.33	25.19	-8.91	0.11	26.72	340.51
6048.01	0.19	244.05	6047.77	26.31	25.17	-8.98	0.30	26.72	340.36
6073.59	0.24	241.92	6073.34	26.28	25.12	-9.07	0.17	26.71	340.16
6099.32	0.16	245.71	6099.08	26.26	25.08	-9.15	0.29	26.70	339.96
6123.84	0.27	252.36	6123.60	26.24	25.05	-9.23	0.42	26.70	339.77
6149.79	0.17	249.34	6149.54	26.23	25.02	-9.33	0.38	26.70	339.56
6171.88	0.25	247.25	6171.64	26.21	24.99	-9.40	0.38	26.70	339.38
6197.31	0.19	255.46	6197.07	26.19	24.96	-9.49	0.26	26.70	339.17
6222.37	0.15	251.09	6222.13	26.18	24.94	-9.57	0.18	26.71	339.01
6247.79	0.25	236.06	6247.55	26.16	24.89	-9.64	0.43	26.70	338.82
6273.34	0.17	215.35	6273.10	26.11	24.83	-9.71	0.42	26.66	338.64
6298.16	0.19	179.75	6297.92	26.04	24.76	-9.73	0.45	26.60	338.54
6323.70	0.21	148.01	6323.46	25.95	24.68	-9.71	0.44	26.52	338.52
6349.12	0.29	148.29	6348.88	25.85	24.58	-9.65	0.33	26.41	338.57
6374.12	0.29	137.98	6373.88	25.74	24.48	-9.57	0.21	26.29	338.64
6399.51	0.31	130.64	6399.26	25.63	24.39	-9.48	0.17	26.16	338.76
6420.95	0.33	143.09	6420.71	25.53	24.30	-9.40	0.33	26.05	338.86

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DISTANCE ft	CLOSURE DIRECTION deg
6449.87	0.36	124.24	6449.62	25.39	24.18	-9.27	0.40	25.90	339.02
6475.00	0.35	156.69	6474.75	25.26	24.07	-9.18	0.79	25.76	339.13
6496.28	0.32	137.64	6496.03	25.15	23.96	-9.11	0.55	25.64	339.18
6521.22	0.35	142.12	6520.97	25.03	23.85	-9.02	0.15	25.50	339.29
6546.53	0.22	139.07	6546.28	24.92	23.76	-8.94	0.50	25.38	339.38
6573.43	0.22	142.00	6573.19	24.83	23.68	-8.87	0.04	25.29	339.45
6598.75	0.16	160.32	6598.50	24.75	23.61	-8.83	0.34	25.20	339.49
6624.45	0.20	153.67	6624.21	24.67	23.53	-8.80	0.17	25.12	339.50
6646.18	0.19	132.63	6645.94	24.61	23.47	-8.76	0.33	25.05	339.54
6670.74	0.17	157.82	6670.50	24.54	23.41	-8.71	0.33	24.98	339.59
6696.77	0.18	128.97	6696.53	24.47	23.35	-8.67	0.34	24.91	339.64
6722.54	0.15	109.74	6722.30	24.42	23.31	-8.60	0.25	24.85	339.75
6747.07	0.19	124.38	6746.82	24.38	23.28	-8.54	0.25	24.80	339.86
6772.95	0.15	129.48	6772.70	24.32	23.23	-8.48	0.18	24.73	339.96
6798.58	0.14	145.07	6798.33	24.27	23.19	-8.43	0.16	24.67	340.01
6823.32	0.20	124.65	6823.08	24.21	23.14	-8.38	0.35	24.61	340.09
6848.99	0.14	132.10	6848.74	24.16	23.09	-8.32	0.25	24.54	340.19
6874.69	0.14	119.82	6874.44	24.11	23.05	-8.27	0.12	24.49	340.27
6899.21	0.19	115.60	6898.96	24.07	23.02	-8.20	0.20	24.44	340.39
6924.85	0.27	102.76	6924.60	24.02	22.99	-8.10	0.36	24.37	340.58
6945.39	0.20	101.69	6945.15	23.99	22.97	-8.02	0.32	24.33	340.75
6974.96	0.18	120.90	6974.71	23.94	22.93	-7.93	0.23	24.27	340.92
6996.40	0.29	113.00	6996.15	23.89	22.90	-7.85	0.55	24.20	341.07
7020.85	0.20	116.25	7020.60	23.83	22.85	-7.75	0.36	24.13	341.26
7046.87	0.19	88.30	7046.62	23.79	22.83	-7.67	0.37	24.09	341.43
7072.14	0.14	96.21	7071.89	23.78	22.83	-7.59	0.22	24.06	341.60
7097.38	0.16	127.71	7097.13	23.74	22.81	-7.54	0.33	24.02	341.72
7121.96	0.19	113.76	7121.71	23.70	22.77	-7.47	0.23	23.96	341.83
7147.71	0.25	114.02	7147.46	23.64	22.73	-7.38	0.22	23.90	342.01
7173.22	0.19	99.16	7172.97	23.60	22.70	-7.29	0.32	23.84	342.20
7198.11	0.16	114.91	7197.86	23.57	22.68	-7.22	0.22	23.80	342.35
7223.83	0.18	92.08	7223.58	23.54	22.66	-7.14	0.27	23.76	342.50

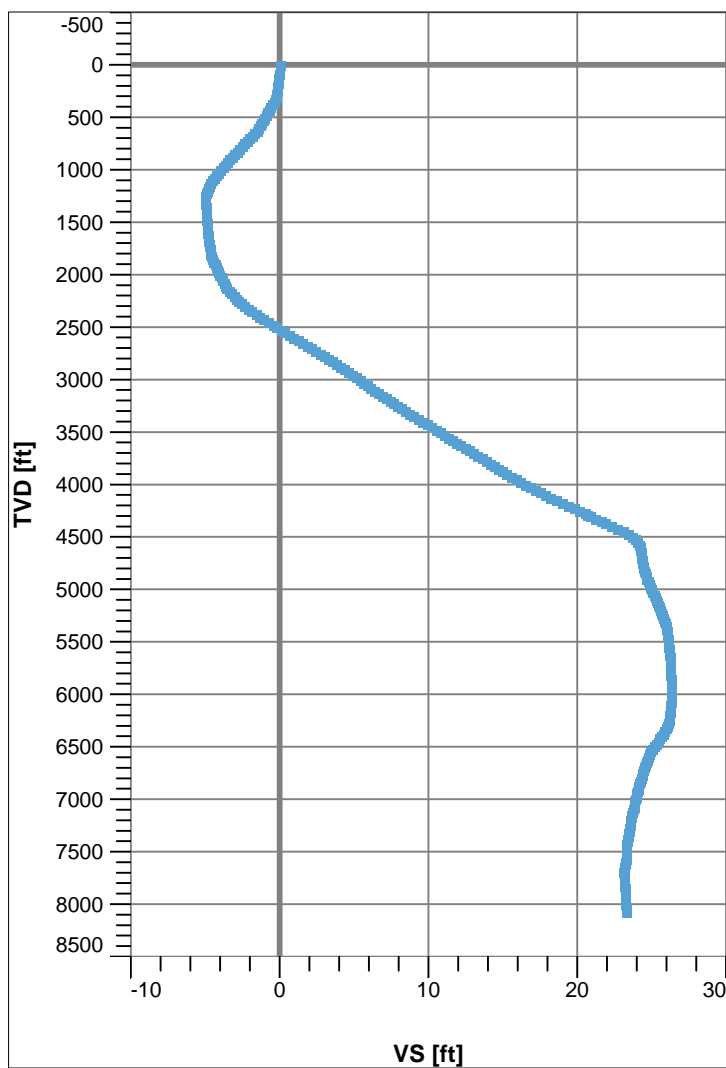
MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
7249.08	0.17	96.77	7248.83	23.52	22.66	-7.07	0.07	23.73	342.67
7273.60	0.17	95.11	7273.35	23.50	22.65	-7.00	0.02	23.71	342.83
7298.83	0.18	102.55	7298.58	23.48	22.64	-6.92	0.10	23.67	342.99
7323.95	0.19	120.93	7323.70	23.43	22.61	-6.85	0.23	23.62	343.14
7348.43	0.16	108.99	7348.18	23.39	22.58	-6.78	0.18	23.57	343.28
7373.80	0.07	131.28	7373.55	23.36	22.55	-6.74	0.39	23.54	343.37
7399.01	0.08	159.34	7398.76	23.33	22.53	-6.72	0.15	23.51	343.39
7423.50	0.07	142.01	7423.24	23.30	22.50	-6.70	0.11	23.48	343.41
7448.81	0.07	108.57	7448.56	23.28	22.48	-6.68	0.15	23.45	343.45
7473.86	0.06	129.02	7473.61	23.27	22.47	-6.66	0.09	23.44	343.50
7498.29	0.10	77.71	7498.04	23.26	22.47	-6.63	0.33	23.42	343.57
7523.55	0.15	72.96	7523.30	23.26	22.48	-6.57	0.21	23.42	343.71
7548.33	0.23	96.76	7548.08	23.25	22.49	-6.49	0.44	23.40	343.90
7572.99	0.22	82.81	7572.74	23.24	22.49	-6.39	0.23	23.38	344.12
7598.22	0.34	94.41	7597.97	23.22	22.49	-6.27	0.52	23.34	344.41
7622.53	0.25	108.04	7622.28	23.18	22.46	-6.15	0.46	23.29	344.68
7646.33	0.23	93.79	7646.08	23.14	22.44	-6.06	0.26	23.25	344.90
7672.02	0.29	99.09	7671.77	23.11	22.43	-5.94	0.23	23.20	345.17
7696.91	0.27	66.72	7696.65	23.10	22.44	-5.82	0.63	23.19	345.45
7721.64	0.25	86.68	7721.39	23.11	22.47	-5.71	0.37	23.19	345.73
7749.81	0.25	70.51	7749.55	23.11	22.49	-5.59	0.25	23.18	346.03
7774.35	0.30	70.45	7774.10	23.13	22.53	-5.48	0.21	23.19	346.33
7797.49	0.23	77.12	7797.23	23.15	22.57	-5.38	0.35	23.20	346.59
7823.63	0.29	69.35	7823.37	23.16	22.60	-5.27	0.28	23.21	346.89
7846.29	0.33	72.25	7846.03	23.18	22.64	-5.15	0.18	23.22	347.19
7872.21	0.23	83.92	7871.96	23.19	22.67	-5.02	0.44	23.22	347.50
7896.99	0.43	78.44	7896.74	23.19	22.69	-4.88	0.81	23.21	347.86
7922.95	0.43	77.22	7922.69	23.20	22.73	-4.69	0.04	23.21	348.34
7949.51	0.23	64.27	7949.25	23.22	22.78	-4.55	0.81	23.23	348.71
7974.56	0.21	82.37	7974.30	23.23	22.81	-4.46	0.29	23.24	348.94
7999.93	0.29	75.76	7999.67	23.24	22.83	-4.35	0.33	23.24	349.21
8024.34	0.39	72.07	8024.08	23.25	22.87	-4.21	0.43	23.25	349.56

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DISTANCE	CLOSURE DIRECTION
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8048.69	0.39	79.32	8048.43	23.27	22.91	-4.05	0.20	23.27	349.97
8073.20	0.39	82.04	8072.94	23.26	22.94	-3.89	0.08	23.26	350.38



Name : Keeper Gyro Wireline Survey: Outrun
Generated : 4/16/2015 11:55:51 Mountain Daylight Time

VS View



Plan View

