



**SUMMIT**  
OILFIELD SERVICES, INC

Company: SRC  
Lease/Well: Mossberg J 30-23  
County/State: Weld CO

Job Number: 8451-512326554  
Date: 9-20-19  
Survey Type: Memory  
Declination: 9.59

Instrument Number: GP1-1026  
North Reference: True North  
Survey Engineer: Michael Kester

### Summit Oilfield Services

*Minimum Curvature Method  
Vertical Section Plane: 0.00  
Vertical Section Reference:  
Rectangular Coordinates Reference:*

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
0.00 ft	0.00	0.00	0.00 ft	0.00 ft	0.00 ft	0.00 ft	0.00 ft	0.00/100 ft	0.00 ft	0.00
100.00 ft	0.60	258.48	100.00 ft	100.00 ft	-0.11 ft	-0.52 ft	-0.11 ft	0.60/100 ft	0.53 ft	258.48
200.00 ft	0.78	295.07	100.00 ft	199.99 ft	0.08 ft	-1.65 ft	0.08 ft	0.46/100 ft	1.65 ft	272.66
300.00 ft	0.70	265.73	100.00 ft	299.98 ft	0.32 ft	-2.87 ft	0.32 ft	0.38/100 ft	2.89 ft	276.31
400.00 ft	0.91	291.60	100.00 ft	399.97 ft	0.56 ft	-4.22 ft	0.56 ft	0.41/100 ft	4.26 ft	277.60
500.00 ft	1.65	320.57	100.00 ft	499.95 ft	1.96 ft	-5.87 ft	1.96 ft	0.96/100 ft	6.19 ft	288.50
600.00 ft	2.05	340.41	100.00 ft	599.90 ft	4.75 ft	-7.38 ft	4.75 ft	0.75/100 ft	8.78 ft	302.80
700.00 ft	2.54	352.94	100.00 ft	699.82 ft	8.63 ft	-8.25 ft	8.63 ft	0.70/100 ft	11.94 ft	316.30
800.00 ft	3.20	359.50	100.00 ft	799.69 ft	13.62 ft	-8.55 ft	13.62 ft	0.74/100 ft	16.08 ft	327.89
900.00 ft	3.42	358.32	100.00 ft	899.53 ft	19.39 ft	-8.66 ft	19.39 ft	0.23/100 ft	21.24 ft	335.94
1000.00 ft	3.19	355.63	100.00 ft	999.36 ft	25.15 ft	-8.96 ft	25.15 ft	0.27/100 ft	26.70 ft	340.40
1100.00 ft	2.79	352.45	100.00 ft	1099.22 ft	30.34 ft	-9.49 ft	30.34 ft	0.43/100 ft	31.79 ft	342.63
1200.00 ft	2.63	356.23	100.00 ft	1199.11 ft	35.05 ft	-9.96 ft	35.05 ft	0.24/100 ft	36.44 ft	344.13
1300.00 ft	2.29	353.78	100.00 ft	1299.02 ft	39.32 ft	-10.33 ft	39.32 ft	0.36/100 ft	40.66 ft	345.28
1400.00 ft	1.92	344.13	100.00 ft	1398.95 ft	42.92 ft	-11.00 ft	42.92 ft	0.51/100 ft	44.30 ft	345.62



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Survey Type: Memory  
Declination: 9.59

Instrument Number: GP1-1026  
North Reference: True North  
Survey Engineer: Michael Kester

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
1500.00 ft	1.68	337.27	100.00 ft	1498.90 ft	45.88 ft	-12.03 ft	45.88 ft	0.32/100 ft	47.43 ft	345.31
1600.00 ft	1.32	326.19	100.00 ft	1598.87 ft	48.19 ft	-13.24 ft	48.19 ft	0.46/100 ft	49.98 ft	344.64
1700.00 ft	1.23	319.75	100.00 ft	1698.84 ft	49.97 ft	-14.57 ft	49.97 ft	0.17/100 ft	52.05 ft	343.74
1800.00 ft	1.04	300.43	100.00 ft	1798.82 ft	51.25 ft	-16.05 ft	51.25 ft	0.42/100 ft	53.71 ft	342.61
1900.00 ft	1.10	319.37	100.00 ft	1898.81 ft	52.44 ft	-17.46 ft	52.44 ft	0.36/100 ft	55.27 ft	341.58
2000.00 ft	1.28	281.64	100.00 ft	1998.79 ft	53.40 ft	-19.18 ft	53.40 ft	0.79/100 ft	56.74 ft	340.24
2100.00 ft	1.15	318.67	100.00 ft	2098.77 ft	54.38 ft	-20.94 ft	54.38 ft	0.78/100 ft	58.27 ft	338.94
2200.00 ft	1.00	332.91	100.00 ft	2198.75 ft	55.91 ft	-22.00 ft	55.91 ft	0.30/100 ft	60.08 ft	338.52
2300.00 ft	0.91	336.20	100.00 ft	2298.73 ft	57.41 ft	-22.72 ft	57.41 ft	0.11/100 ft	61.75 ft	338.41
2400.00 ft	0.64	342.88	100.00 ft	2398.72 ft	58.67 ft	-23.20 ft	58.67 ft	0.28/100 ft	63.09 ft	338.42
2500.00 ft	0.50	348.31	100.00 ft	2498.72 ft	59.63 ft	-23.45 ft	59.63 ft	0.15/100 ft	64.07 ft	338.53
2600.00 ft	0.31	308.92	100.00 ft	2598.72 ft	60.22 ft	-23.75 ft	60.22 ft	0.32/100 ft	64.73 ft	338.47
2700.00 ft	0.42	285.50	100.00 ft	2698.72 ft	60.49 ft	-24.31 ft	60.49 ft	0.18/100 ft	65.19 ft	338.10
2800.00 ft	0.53	304.87	100.00 ft	2798.71 ft	60.85 ft	-25.04 ft	60.85 ft	0.19/100 ft	65.80 ft	337.63
2900.00 ft	0.38	305.43	100.00 ft	2898.71 ft	61.30 ft	-25.69 ft	61.30 ft	0.14/100 ft	66.47 ft	337.26
3000.00 ft	0.33	297.07	100.00 ft	2998.71 ft	61.63 ft	-26.22 ft	61.63 ft	0.07/100 ft	66.98 ft	336.95
3100.00 ft	0.31	296.49	100.00 ft	3098.71 ft	61.88 ft	-26.72 ft	61.88 ft	0.03/100 ft	67.40 ft	336.65
3200.00 ft	0.35	328.99	100.00 ft	3198.70 ft	62.26 ft	-27.12 ft	62.26 ft	0.19/100 ft	67.91 ft	336.47
3300.00 ft	0.62	331.46	100.00 ft	3298.70 ft	63.00 ft	-27.53 ft	63.00 ft	0.27/100 ft	68.76 ft	336.39
3400.00 ft	0.54	344.88	100.00 ft	3398.70 ft	63.94 ft	-27.92 ft	63.94 ft	0.16/100 ft	69.76 ft	336.41
3500.00 ft	0.54	4.19	100.00 ft	3498.69 ft	64.86 ft	-28.01 ft	64.86 ft	0.18/100 ft	70.65 ft	336.65
3600.00 ft	0.56	324.89	100.00 ft	3598.69 ft	65.73 ft	-28.25 ft	65.73 ft	0.37/100 ft	71.54 ft	336.74



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Survey Type: Memory  
Declination: 9.59

Instrument Number: GP1-1026  
North Reference: True North  
Survey Engineer: Michael Kester

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
3700.00 ft	0.82	300.70	100.00 ft	3698.68 ft	66.49 ft	-29.15 ft	66.49 ft	0.39/100 ft	72.60 ft	336.33
3800.00 ft	0.85	274.16	100.00 ft	3798.67 ft	66.91 ft	-30.50 ft	66.91 ft	0.39/100 ft	73.54 ft	335.49
3900.00 ft	0.99	251.75	100.00 ft	3898.66 ft	66.69 ft	-32.07 ft	66.69 ft	0.38/100 ft	74.00 ft	334.32
4000.00 ft	1.02	264.37	100.00 ft	3998.64 ft	66.34 ft	-33.77 ft	66.34 ft	0.22/100 ft	74.44 ft	333.02
4100.00 ft	1.01	267.36	100.00 ft	4098.63 ft	66.21 ft	-35.53 ft	66.21 ft	0.05/100 ft	75.14 ft	331.78
4200.00 ft	0.74	233.78	100.00 ft	4198.61 ft	65.79 ft	-36.94 ft	65.79 ft	0.57/100 ft	75.45 ft	330.69
4300.00 ft	0.81	181.41	100.00 ft	4298.61 ft	64.70 ft	-37.48 ft	64.70 ft	0.69/100 ft	74.77 ft	329.92
4400.00 ft	0.42	170.04	100.00 ft	4398.60 ft	63.63 ft	-37.43 ft	63.63 ft	0.40/100 ft	73.82 ft	329.54
4500.00 ft	0.38	308.71	100.00 ft	4498.60 ft	63.47 ft	-37.62 ft	63.47 ft	0.75/100 ft	73.79 ft	329.34
4600.00 ft	0.30	246.24	100.00 ft	4598.60 ft	63.57 ft	-38.12 ft	63.57 ft	0.36/100 ft	74.12 ft	329.06
4700.00 ft	0.75	164.88	100.00 ft	4698.59 ft	62.84 ft	-38.18 ft	62.84 ft	0.76/100 ft	73.53 ft	328.72
4800.00 ft	0.89	170.90	100.00 ft	4798.58 ft	61.45 ft	-37.89 ft	61.45 ft	0.17/100 ft	72.19 ft	328.34
4900.00 ft	0.76	161.41	100.00 ft	4898.57 ft	60.05 ft	-37.56 ft	60.05 ft	0.18/100 ft	70.83 ft	327.98
5000.00 ft	0.67	149.02	100.00 ft	4998.57 ft	58.92 ft	-37.04 ft	58.92 ft	0.18/100 ft	69.59 ft	327.84
5100.00 ft	0.15	175.56	100.00 ft	5098.56 ft	58.28 ft	-36.73 ft	58.28 ft	0.54/100 ft	68.89 ft	327.78
5200.00 ft	0.19	206.14	100.00 ft	5198.56 ft	58.00 ft	-36.79 ft	58.00 ft	0.10/100 ft	68.68 ft	327.61
5300.00 ft	0.54	210.37	100.00 ft	5298.56 ft	57.44 ft	-37.10 ft	57.44 ft	0.35/100 ft	68.38 ft	327.14
5400.00 ft	0.65	214.22	100.00 ft	5398.56 ft	56.57 ft	-37.66 ft	56.57 ft	0.12/100 ft	67.96 ft	326.35
5500.00 ft	0.71	229.88	100.00 ft	5498.55 ft	55.70 ft	-38.45 ft	55.70 ft	0.19/100 ft	67.68 ft	325.38
5600.00 ft	1.18	205.71	100.00 ft	5598.54 ft	54.37 ft	-39.37 ft	54.37 ft	0.61/100 ft	67.13 ft	324.09
5700.00 ft	1.97	215.58	100.00 ft	5698.50 ft	52.04 ft	-40.82 ft	52.04 ft	0.83/100 ft	66.14 ft	321.89
5800.00 ft	1.52	235.64	100.00 ft	5798.45 ft	49.89 ft	-42.92 ft	49.89 ft	0.75/100 ft	65.81 ft	319.30



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Instrument Number: GP1-1026  
North Reference: True North  
Survey Engineer: Michael Kester

Measured Depth	Inclin	Azimuth	Course Length	True Vertical Depth	N[+]/S[-]	E[+]/W[-]	Vertical Section	Dogleg Severity	Closure Distance	Closure Direction
5900.00 ft	1.08	257.93	100.00 ft	5898.43 ft	48.94 ft	-44.94 ft	48.94 ft	0.66/100 ft	66.45 ft	317.44
6000.00 ft	0.36	340.57	100.00 ft	5998.42 ft	49.04 ft	-45.97 ft	49.04 ft	1.10/100 ft	67.22 ft	316.85
6100.00 ft	0.49	11.78	100.00 ft	6098.42 ft	49.76 ft	-45.99 ft	49.76 ft	0.26/100 ft	67.76 ft	317.26
6200.00 ft	0.46	6.81	100.00 ft	6198.41 ft	50.57 ft	-45.86 ft	50.57 ft	0.05/100 ft	68.27 ft	317.80
6300.00 ft	0.62	8.04	100.00 ft	6298.41 ft	51.50 ft	-45.73 ft	51.50 ft	0.17/100 ft	68.88 ft	318.40
6400.00 ft	0.91	14.46	100.00 ft	6398.40 ft	52.81 ft	-45.46 ft	52.81 ft	0.30/100 ft	69.68 ft	319.28
6500.00 ft	1.06	14.60	100.00 ft	6498.38 ft	54.47 ft	-45.03 ft	54.47 ft	0.15/100 ft	70.67 ft	320.42
6600.00 ft	1.02	4.93	100.00 ft	6598.37 ft	56.25 ft	-44.72 ft	56.25 ft	0.18/100 ft	71.86 ft	321.52
6700.00 ft	0.89	3.52	100.00 ft	6698.35 ft	57.91 ft	-44.59 ft	57.91 ft	0.13/100 ft	73.09 ft	322.40
6800.00 ft	0.51	359.61	100.00 ft	6798.35 ft	59.13 ft	-44.55 ft	59.13 ft	0.38/100 ft	74.04 ft	323.01
6900.00 ft	0.26	348.62	100.00 ft	6898.34 ft	59.80 ft	-44.60 ft	59.80 ft	0.27/100 ft	74.60 ft	323.29
7000.00 ft	0.33	329.22	100.00 ft	6998.34 ft	60.26 ft	-44.79 ft	60.26 ft	0.12/100 ft	75.09 ft	323.38
7100.00 ft	0.36	323.09	100.00 ft	7098.34 ft	60.76 ft	-45.12 ft	60.76 ft	0.05/100 ft	75.69 ft	323.40
7200.00 ft	0.29	264.15	100.00 ft	7198.34 ft	60.99 ft	-45.57 ft	60.99 ft	0.33/100 ft	76.13 ft	323.24
7300.00 ft	0.18	244.97	100.00 ft	7298.34 ft	60.90 ft	-45.96 ft	60.90 ft	0.13/100 ft	76.30 ft	322.96