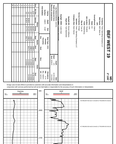

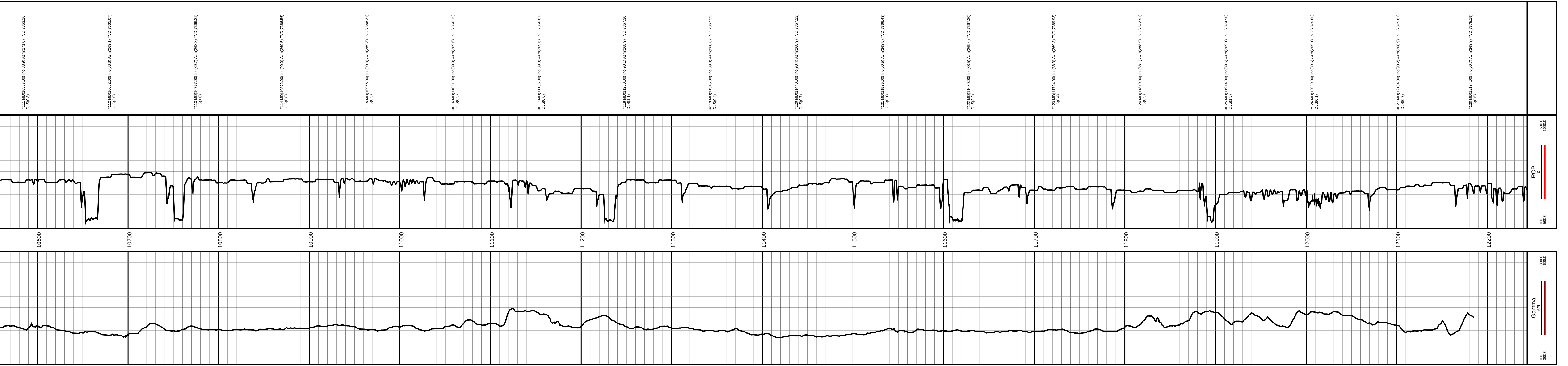

BEF WEST 19

MD
2":100'

Company: Petro Operating Company LLC
Well Name: BEF West 19
API:
County/Parish: Adams
State: CO
Country: USA
Job number: TRUE33
Field: Wattenburg
Rig Id: True 33
Survey Company: Ensign
Operator: Petro Operating Company LLC
Company Man: Mark Stoner

Daylight DD: Breven Williams
Night DD: Tyler Batchelder

Daylight MWD: Justin Klatt
Night MWD: Cameron MacDonald

Log measurements: Gamma
Depth measured from:
Maximum temperature:

	Depth	Date
Start:	0 ft	12-23-2018
End:	12244 ft	2-6-2019

Casing	Depth	Size
Surface:	1568 ft	9 5/8"
Intermediate:		

Mud Type: WBM
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 27 ft
GL: 5049 ft
DF: 5076 ft

Run	Bit Size	Offsets		Depths		Dates	
		Gamma	Survey	Start	End	Start	End
1	12.5"		60.00 ft	0 ft	1558 ft	12-23-2018	12-23-2018
2	8.5"		60.00 ft	1558 ft	4396 ft	2-1-2019	2-2-2019
3	8.5"	58.96 ft	54.13 ft	4396 ft	8417 ft	2-2-2019	2-4-2019
4	8.5"	62.60 ft	57.77 ft	8417 ft		2-4-2019	
5							
6							
7							
8							
9							
10							

Ensign uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

#16 MD(1567.00) Inc(4.7) Azm(30.4) TVD(1565.87) DLS(0.4)
#17 MD(1661.00) Inc(6.4) Azm(31.1) TVD(1659.42) DLS(1.8)
#18 MD(1757.00) Inc(8.2) Azm(38.1) TVD(1754.64) DLS(2.1)
#19 MD(1851.00) Inc(9.5) Azm(41.7) TVD(1847.52) DLS(1.5)
#20 MD(1946.00) Inc(10.5) Azm(47.6) TVD(1941.08) DLS(1.5)
#21 MD(2041.00) Inc(12.0) Azm(45.0) TVD(2034.25) DLS(1.7)
#22 MD(2136.00) Inc(14.2) Azm(34.3) TVD(2126.79) DLS(3.4)
#23 MD(2230.00) Inc(15.7) Azm(26.7) TVD(2217.61) DLS(2.6)
#24 MD(2325.00) Inc(15.1) Azm(25.3) TVD(2309.20) DLS(0.7)
#25 MD(2420.00) Inc(14.8) Azm(24.4) TVD(2400.99) DLS(0.4)
#26 MD(2515.00) Inc(14.3) Azm(23.2) TVD(2492.94) DLS(0.6)
#27 MD(2610.00) Inc(14.8) Azm(25.8) TVD(2584.89) DLS(0.9)
#28 MD(2704.00) Inc(14.2) Azm(22.8) TVD(2675.90) DLS(1.0)
#29 MD(2799.00) Inc(15.4) Azm(23.7) TVD(2767.75) DLS(1.3)
#30 MD(2894.00) Inc(14.9) Azm(22.7) TVD(2859.45) DLS(0.6)
#31 MD(2989.00) Inc(14.0) Azm(20.4) TVD(2951.44) DLS(1.1)
#32 MD(3084.00) Inc(13.5) Azm(18.8) TVD(3043.72) DLS(0.7)
#33 MD(3179.00) Inc(14.0) Azm(29.2) TVD(3136.01) DLS(2.7)
#34 MD(3274.00) Inc(13.9) Azm(29.7) TVD(3228.21) DLS(0.2)
#35 MD(3368.00) Inc(15.7) Azm(30.2) TVD(3319.08) DLS(1.9)
#36 MD(3463.00) Inc(14.3) Azm(28.8) TVD(3410.85) DLS(1.5)
#37 MD(3558.00) Inc(15.1) Azm(34.1) TVD(3502.74) DLS(1.6)
#38 MD(3653.00) Inc(13.6) Azm(32.7) TVD(3594.77) DLS(1.6)
#39 MD(3748.00) Inc(14.9) Azm(37.8) TVD(3686.85) DLS(1.9)
#40 MD(3842.00) Inc(14.2) Azm(36.7) TVD(3777.84) DLS(0.8)
#41 MD(3936.00) Inc(13.9) Azm(33.7) TVD(3869.03) DLS(0.8)
#42 MD(4031.00) Inc(14.8) Azm(31.1) TVD(3961.06) DLS(1.2)
#43 MD(4126.00) Inc(13.4) Azm(28.6) TVD(4053.20) DLS(1.6)
#44 MD(4221.00) Inc(14.8) Azm(29.5) TVD(4145.33) DLS(1.5)
#45 MD(4316.00) Inc(15.1) Azm(28.6) TVD(4237.12) DLS(0.4)
#46 MD(4416.00) Inc(16.8) Azm(28.1) TVD(4333.26) DLS(1.7)
#47 MD(4511.00) Inc(15.6) Azm(26.4) TVD(4424.49) DLS(1.4)
#48 MD(4605.00) Inc(17.1) Azm(25.3) TVD(4514.69) DLS(1.6)
#49 MD(4700.00) Inc(15.9) Azm(24.2) TVD(4605.77) DLS(1.3)
#50 MD(4795.00) Inc(14.8) Azm(23.0) TVD(4697.38) DLS(1.2)
#51 MD(4890.00) Inc(15.5) Azm(21.4) TVD(4789.08) DLS(0.9)
#52 MD(4985.00) Inc(14.6) Azm(19.5) TVD(4880.82) DLS(1.1)
#53 MD(5080.00) Inc(15.1) Azm(24.8) TVD(4972.65) DLS(1.5)
#54 MD(5175.00) Inc(14.9) Azm(23.4) TVD(5064.42) DLS(0.4)
#55 MD(5269.00) Inc(15.3) Azm(30.6) TVD(5155.18) DLS(2.0)
#56 MD(5364.00) Inc(13.7) Azm(28.5) TVD(5247.15) DLS(1.8)
#57 MD(5458.00) Inc(14.4) Azm(28.8) TVD(5338.34) DLS(0.7)
#58 MD(5552.00) Inc(12.9) Azm(25.8) TVD(5429.68) DLS(1.8)
#59 MD(5646.00) Inc(14.2) Azm(31.1) TVD(5521.07) DLS(1.9)
#60 MD(5741.00) Inc(13.5) Azm(29.2) TVD(5613.31) DLS(0.9)
#61 MD(5836.00) Inc(12.7) Azm(36.2) TVD(5705.84) DLS(1.9)
#62 MD(5931.00) Inc(11.0) Azm(32.3) TVD(5798.81) DLS(2.0)
#63 MD(6025.00) Inc(10.7) Azm(38.1) TVD(5891.13) DLS(1.2)
#64 MD(6120.00) Inc(9.4) Azm(37.1) TVD(5984.67) DLS(1.4)
#65 MD(6214.00) Inc(8.5) Azm(33.6) TVD(6077.53) DLS(1.1)
#66 MD(6308.00) Inc(7.4) Azm(29.0) TVD(6170.63) DLS(1.4)
#67 MD(6403.00) Inc(6.2) Azm(25.1) TVD(6264.96) DLS(1.4)
#68 MD(6497.00) Inc(4.1) Azm(24.4) TVD(6358.57) DLS(2.2)
#69 MD(6615.00) Inc(1.6) Azm(45.7) TVD(6476.42) DLS(2.3)
#70 MD(6709.00) Inc(1.3) Azm(39.0) TVD(6570.39) DLS(0.4)
#71 MD(6803.00) Inc(4.7) Azm(262.1) TVD(6664.30) DLS(6.1)
#72 MD(6898.00) Inc(11.8) Azm(261.5) TVD(6758.25) DLS(7.5)
#73 MD(6993.00) Inc(15.5) Azm(264.0) TVD(6850.56) DLS(3.9)
#74 MD(7088.00) Inc(23.7) Azm(272.4) TVD(6939.99) DLS(9.1)
#75 MD(7182.00) Inc(32.6) Azm(266.1) TVD(7022.81) DLS(10.0)
#76 MD(7277.00) Inc(38.7) Azm(267.0) TVD(7099.97) DLS(6.4)
#77 MD(7371.00) Inc(47.3) Azm(268.9) TVD(7168.65) DLS(9.3)
#78 MD(7466.00) Inc(56.0) Azm(268.8) TVD(7227.54) DLS(9.2)
#79 MD(7561.00) Inc(65.2) Azm(268.4) TVD(7274.13) DLS(9.7)
#80 MD(7655.00) Inc(74.0) Azm(270.2) TVD(7306.86) DLS(9.5)
#81 MD(7750.00) Inc(79.5) Azm(270.0) TVD(7328.63) DLS(5.8)
#82 MD(7844.00) Inc(84.3) Azm(270.9) TVD(7341.87) DLS(5.2)
#83 MD(7939.00) Inc(88.1) Azm(268.4) TVD(7348.17) DLS(4.8)
#84 MD(8034.00) Inc(88.1) Azm(267.9) TVD(7351.32) DLS(0.5)
#85 MD(8128.00) Inc(90.5) Azm(269.6) TVD(7352.46) DLS(3.1)
#86 MD(8223.00) Inc(91.5) Azm(269.6) TVD(7350.81) DLS(1.1)
#87 MD(8318.00) Inc(91.4) Azm(270.9) TVD(7348.40) DLS(1.4)
#88 MD(8411.00) Inc(92.0) Azm(270.5) TVD(7345.64) DLS(0.8)
#89 MD(8506.00) Inc(91.0) Azm(271.0) TVD(7343.16) DLS(1.2)
#90 MD(8601.00) Inc(89.2) Azm(270.2) TVD(7342.99) DLS(2.1)
#91 MD(8695.00) Inc(89.1) Azm(269.5) TVD(7344.38) DLS(0.8)
#92 MD(8790.00) Inc(89.6) Azm(271.2) TVD(7345.46) DLS(1.9)
#93 MD(8884.00) Inc(89.4) Azm(272.4) TVD(7346.28) DLS(1.3)
#94 MD(8979.00) Inc(89.3) Azm(274.0) TVD(7347.36) DLS(1.7)
#95 MD(9074.00) Inc(89.4) Azm(272.4) TVD(7348.44) DLS(1.7)
#96 MD(9169.00) Inc(89.4) Azm(273.5) TVD(7349.43) DLS(1.2)
#97 MD(9263.00) Inc(89.1) Azm(271.4) TVD(7350.66) DLS(2.3)
#98 MD(9357.00) Inc(88.8) Azm(269.1) TVD(7352.39) DLS(2.5)
#99 MD(9451.00) Inc(88.4) Azm(268.9) TVD(7354.68) DLS(0.5)
#100 MD(9545.00) Inc(90.5) Azm(269.5) TVD(7355.59) DLS(2.3)
#101 MD(9640.00) Inc(90.7) Azm(269.5) TVD(7354.59) DLS(0.2)
#102 MD(9735.00) Inc(90.7) Azm(268.8) TVD(7353.43) DLS(0.7)
#103 MD(9830.00) Inc(89.2) Azm(269.8) TVD(7353.51) DLS(1.9)
#104 MD(9924.00) Inc(88.8) Azm(269.5) TVD(7355.15) DLS(0.5)
#105 MD(10019.00) Inc(88.4) Azm(269.3) TVD(7357.47) DLS(0.5)
#106 MD(10113.00) Inc(89.5) Azm(269.6) TVD(7359.20) DLS(1.2)
#107 MD(10208.00) Inc(89.6) Azm(270.2) TVD(7359.94) DLS(0.6)
#108 MD(10303.00) Inc(89.6) Azm(270.3) TVD(7360.61) DLS(0.1)
#109 MD(10398.00) Inc(89.8) Azm(270.9) TVD(7361.10) DLS(0.7)
#110 MD(10493.00) Inc(89.4) Azm(270.5) TVD(7361.77) DLS(0.6)
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#111 MD(10587.00) Inc(88.9) Azm(271.0) TVD(7363.16)
DLS(0.8)

#112 MD(10682.00) Inc(88.8) Azm(269.1) TVD(7365.07)
DLS(2.0)

#113 MD(10777.00) Inc(89.7) Azm(268.8) TVD(7366.31)
DLS(1.0)

#114 MD(10872.00) Inc(90.0) Azm(269.5) TVD(7366.56)
DLS(0.8)

#115 MD(10966.00) Inc(90.3) Azm(269.8) TVD(7366.31)
DLS(0.5)

#116 MD(11061.00) Inc(89.9) Azm(269.6) TVD(7366.15)
DLS(0.5)

#117 MD(11156.00) Inc(89.3) Azm(269.6) TVD(7366.81)
DLS(0.6)

#118 MD(11250.00) Inc(90.1) Azm(268.9) TVD(7367.30)
DLS(1.1)

#119 MD(11345.00) Inc(89.8) Azm(268.6) TVD(7367.39)
DLS(0.4)

#120 MD(11440.00) Inc(90.4) Azm(268.9) TVD(7367.22)
DLS(0.7)

#121 MD(11535.00) Inc(90.5) Azm(268.9) TVD(7366.48)
DLS(0.1)

#122 MD(11630.00) Inc(88.5) Azm(269.6) TVD(7367.30)
DLS(2.2)

#123 MD(11724.00) Inc(88.3) Azm(269.3) TVD(7369.93)
DLS(0.4)

#124 MD(11819.00) Inc(88.1) Azm(268.9) TVD(7372.91)
DLS(0.5)

#125 MD(11914.00) Inc(89.5) Azm(269.1) TVD(7374.90)
DLS(1.5)

#126 MD(12009.00) Inc(89.6) Azm(269.1) TVD(7375.65)
DLS(0.1)

#127 MD(12104.00) Inc(90.2) Azm(268.9) TVD(7375.81)
DLS(0.7)

#128 MD(12184.00) Inc(90.7) Azm(268.8) TVD(7375.19)
DLS(0.6)