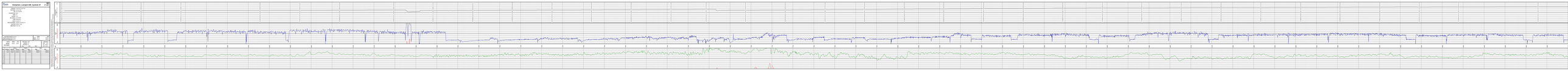

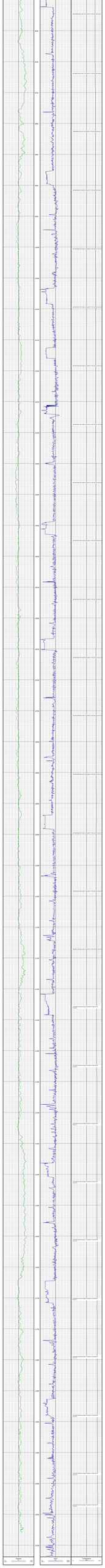

Extraction_Leonard 10N_Cyclone 37

MD
5":100'

Company: Extraction Oil and Gas
Well Name: Leonard 10N
API: 05-123-45050
County/Parish: Weld
State: CO
Country: USA
Job number: CO17318EX
Field: Wattenberg
Rig Id: Cyclone 37
Survey Company: Integrity Directional Inc.
Day Hand Stephen Lebel
Night Hand Andy King

Log measurements: Gamma
Depth measured from: RKB ft
Maximum temperature: 257.8

	Depth	Date
Start:	1547 ft	09/30/17
End:	12118 ft	10/02/17

Casing	**Depth**	**Size**
Surface:	1550 ft	9.625"
Intermediate:		

Mud Type: OBM
Density: 9.6
Viscosity: 40
Rm: **Rmf:** **Rmc:**

Elevations
KB: 28 ft
GL: 5004 ft
DF: 5032 ft

Run	Bit Size	Offsets Gamma	Offsets Survey	Depths Start	Depths End	Dates Start	Dates End
1	8.50"	36.19 ft	61.00 ft	1547 ft	7565 ft	09/30/17	10/01/17
2	8.50"	39.02 ft	64.00 ft	7565 ft	12118 ft	10/01/17	10/02/17
3							
4							
5							
6							
7							
8							
9							
10							

Integrity Directional Inc. 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.

Gamma
API
0.0
150.0
150.0
300.0
MD
ROP
ft/hr
0.0
1000.0
1000.0
2000.0
Temperature
degF
0.0
300.0
#47 MD(6005.00) Inc(8.7) Azm(192.2) TVD(5814.16) DLS(2.3)
6050
6100
#48 MD(6100.00) Inc(6.5) Azm(186.8) TVD(5908.32) DLS(2.4)
6150
#49 MD(6194.00) Inc(4.4) Azm(198.7) TVD(6001.89) DLS(2.5)
6200
6250
#50 MD(6289.00) Inc(1.0) Azm(201.3) TVD(6096.77) DLS(3.6)
6300
6350
6400
6450
#51 MD(6478.00) Inc(0.2) Azm(162.6) TVD(6285.76) DLS(0.5)
6500
6550
#52 MD(6573.00) Inc(0.6) Azm(10.2) TVD(6380.76) DLS(0.9)
6600
6650
#53 MD(6668.00) Inc(0.7) Azm(356.0) TVD(6475.75) DLS(0.2)
6700
6750
#54 MD(6797.00) Inc(1.1) Azm(359.3) TVD(6604.74) DLS(0.3)
6800
6850
#55 MD(6891.00) Inc(1.4) Azm(358.8) TVD(6698.71) DLS(0.3)
6900
6950
#56 MD(6986.00) Inc(6.8) Azm(86.2) TVD(6793.48) DLS(7.3)
7000
7050
#57 MD(7080.00) Inc(16.4) Azm(88.3) TVD(6885.45) DLS(10.2)
7100
7150
#58 MD(7175.00) Inc(24.5) Azm(93.4) TVD(6974.41) DLS(8.7)
7200
7250
#59 MD(7269.00) Inc(33.2) Azm(90.6) TVD(7056.68) DLS(9.4)
7300
7350
#60 MD(7364.00) Inc(42.4) Azm(89.1) TVD(7131.66) DLS(9.8)
7400
7450
#61 MD(7459.00) Inc(50.6) Azm(91.4) TVD(7196.99) DLS(8.8)
7500
#62 MD(7543.00) Inc(55.7) Azm(93.8) TVD(7247.36) DLS(6.5)
7550
7600
#63 MD(7637.00) Inc(61.2) Azm(94.2) TVD(7296.54) DLS(5.9)
7650
7700
#64 MD(7732.00) Inc(64.1) Azm(91.9) TVD(7340.17) DLS(3.7)
7750
7800
#65 MD(7827.00) Inc(72.0) Azm(88.9) TVD(7375.66) DLS(8.8)
7850
7900
#66 MD(7921.00) Inc(80.6) Azm(87.1) TVD(7397.92) DLS(9.4)
7950
8000
#67 MD(8016.00) Inc(89.2) Azm(87.8) TVD(7406.34) DLS(9.1)
8050
8100
#68 MD(8110.00) Inc(90.2) Azm(85.9) TVD(7406.83) DLS(2.3)
8150
8200
#69 MD(8205.00) Inc(90.6) Azm(89.2) TVD(7406.18) DLS(3.5)
8250
8300
#70 MD(8300.00) Inc(90.0) Azm(89.4) TVD(7405.68) DLS(0.6)
8350
8400
#71 MD(8394.00) Inc(90.7) Azm(89.7) TVD(7405.08) DLS(0.8)
8450
#72 MD(8489.00) Inc(89.6) Azm(89.7) TVD(7404.80) DLS(1.2)
8500
8550
#73 MD(8583.00) Inc(88.8) Azm(90.2) TVD(7406.08) DLS(1.0)
8600
8650
#74 MD(8677.00) Inc(90.0) Azm(90.5) TVD(7407.04) DLS(1.3)
8700
8750
#75 MD(8772.00) Inc(87.8) Azm(91.2) TVD(7408.86) DLS(2.4)
8800
8850
#76 MD(8867.00) Inc(87.9) Azm(89.0) TVD(7412.43) DLS(2.3)
8900
8950
#77 MD(8962.00) Inc(88.5) Azm(89.7) TVD(7415.41) DLS(1.0)
9000
9050
#78 MD(9056.00) Inc(89.6) Azm(88.2) TVD(7416.95) DLS(2.0)
9100
9150
#79 MD(9151.00) Inc(90.8) Azm(88.9) TVD(7416.59) DLS(1.5)
9200
9250
#80 MD(9245.00) Inc(89.3) Azm(88.8) TVD(7416.49) DLS(1.6)
9300
9350
#81 MD(9339.00) Inc(90.1) Azm(89.4) TVD(7416.98) DLS(1.1)
9400
9450
9500
#82 MD(9529.00) Inc(90.2) Azm(89.9) TVD(7416.50) DLS(0.3)
9550

9650
9700
9750
9800
9850
9900
9950
10000
10050
10100
10150
10200
10250
10300
10350
10400
10450
10500
10550
10600
10650
10700
10750
10800
10850
10900
10950
11000
11050
11100
11150
11200
11250
11300
11350
11400
11450
11500
11550
11600
11650
11700
11750
11800
11850
11900
11950
12000
12050
12100
#83 MD(9623.00) Inc(87.5) Azm(91.8) TVD(7418.39) DLS(3.5)
#84 MD(9719.00) Inc(87.7) Azm(91.0) TVD(7422.39) DLS(0.9)
#85 MD(9813.00) Inc(87.3) Azm(92.1) TVD(7426.46) DLS(1.2)
#86 MD(9908.00) Inc(90.2) Azm(91.1) TVD(7428.53) DLS(3.2)
#87 MD(10003.00) Inc(92.0) Azm(90.3) TVD(7426.71) DLS(2.1)
#88 MD(10097.00) Inc(91.3) Azm(90.8) TVD(7424.00) DLS(0.9)
#89 MD(10192.00) Inc(90.2) Azm(90.8) TVD(7422.77) DLS(1.2)
#90 MD(10287.00) Inc(89.1) Azm(92.3) TVD(7423.37) DLS(1.9)
#91 MD(10381.00) Inc(90.5) Azm(91.4) TVD(7423.70) DLS(1.8)
#92 MD(10475.00) Inc(90.0) Azm(90.1) TVD(7423.28) DLS(1.5)
#93 MD(10570.00) Inc(90.8) Azm(89.4) TVD(7422.60) DLS(1.1)
#94 MD(10664.00) Inc(89.6) Azm(89.1) TVD(7422.25) DLS(1.3)
#95 MD(10758.00) Inc(90.1) Azm(88.3) TVD(7422.48) DLS(1.0)
#96 MD(10853.00) Inc(91.3) Azm(88.0) TVD(7421.32) DLS(1.3)
#97 MD(10948.00) Inc(90.2) Azm(89.7) TVD(7420.09) DLS(2.1)
#98 MD(11042.00) Inc(90.7) Azm(89.2) TVD(7419.34) DLS(0.7)
#99 MD(11136.00) Inc(92.3) Azm(87.6) TVD(7416.85) DLS(2.4)
#100 MD(11230.00) Inc(90.3) Azm(88.8) TVD(7414.73) DLS(2.5)
#101 MD(11325.00) Inc(90.0) Azm(88.6) TVD(7414.49) DLS(0.3)
#102 MD(11419.00) Inc(90.8) Azm(87.2) TVD(7413.82) DLS(1.7)
#103 MD(11513.00) Inc(90.6) Azm(89.0) TVD(7412.67) DLS(1.9)
#104 MD(11607.00) Inc(91.7) Azm(88.2) TVD(7410.80) DLS(1.5)
#105 MD(11702.00) Inc(89.8) Azm(89.9) TVD(7409.57) DLS(2.7)
#106 MD(11796.00) Inc(90.7) Azm(89.1) TVD(7409.15) DLS(1.3)
#107 MD(11891.00) Inc(89.0) Azm(90.9) TVD(7409.38) DLS(2.6)
#108 MD(11985.00) Inc(89.9) Azm(90.1) TVD(7410.30) DLS(1.3)
#109 MD(12036.00) Inc(90.2) Azm(90.5) TVD(7410.27) DLS(1.0)
Gamma
API
0.0
150.0
150.0
300.0
ROP
ft/hr
0.0
1000.0
1000.0
2000.0
Temperature
degF
0.0
300.0