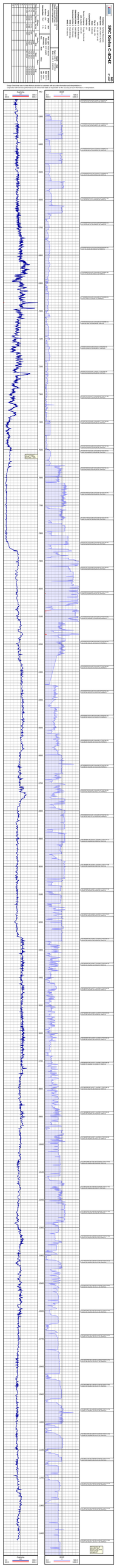

SRC Kiehn C-4CHZ

MD
2":100'

ENSIGN

Company: Synergy Resources
Well Name: SRC Kiehn C-4CHZ
API: 05 123 397 18 00
Rig Id: Ensign 131
State: Colorado
County/Parish: Weld
Country: US
Survey Company: Ensign Directional
Job number: 131-149
Company Man 1 Kevin Brakovec
Directional Driller 1 Joe Edgerton
Directional Driller 2 Pete Moriarty
MWD 1 Wade Eldridge
MWD 2 Tim Adams

Log measurements: Gamma
Depth measured from: KB
Maximum temperature:

	Depth	**Date**
Start:	6466 ft	7/27/2014
End:	11481 ft	8/3/2014

Casing	**Depth**	**Size**
Surface:	558	9 5/8
Intermediate:	7547	7.75

Mud Type: Water Based
Density: 10.8 weight
Viscosity: 46
Rm: **Rmf:** **Rmc:**

Elevations
KB: 5077.5
GL: 5064
DF: 5077.5

Run	**Bit Size**	**Offsets** **Gamma**	**Offsets** **Survey**	**Depths** **Start**	**Depths** **End**	**Dates** **Start**	**Dates** **End**
1	9 5/8			0	558	7-24-2014	7-24-2014
2	7.75	52.71	47.71	558	7345	7-25-2014	7-29-2014
3	7.75	52.88	47.88	7345	7557	7-29-2014	7-30-2014
4	6.125	55.06	50.06	7557	11481	8-1-2014	8-03-2014
5							
6							
7							
8							
9							
10							

Ensign Directional 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.

#69 MD(6242.00) Inc(0.4) Azm(99.4) TVD(6223.28) VS(-155.37) NS(-151.90) EW(217.69) TEMP(0.0)

#70 MD(6331.00) Inc(1.6) Azm(327.6) TVD(6312.27) VS(-154.37) NS(-150.90) EW(217.33) TEMP(0.0)

#71 MD(6420.00) Inc(3.7) Azm(341.3) TVD(6401.17) VS(-150.58) NS(-147.13) EW(215.74) TEMP(0.0)

#72 MD(6509.00) Inc(7.8) Azm(341.7) TVD(6489.70) VS(-142.07) NS(-138.67) EW(212.92) TEMP(0.0)

#73 MD(6598.00) Inc(11.1) Azm(343.4) TVD(6577.48) VS(-128.06) NS(-124.72) EW(208.58) TEMP(0.0)

#74 MD(6687.00) Inc(12.9) Azm(336.6) TVD(6664.54) VS(-110.63) NS(-107.39) EW(202.19) TEMP(0.0)

#75 MD(6776.00) Inc(18.6) Azm(349.9) TVD(6750.19) VS(-87.41) NS(-84.28) EW(195.74) TEMP(0.0)

#76 MD(6865.00) Inc(26.3) Azm(354.0) TVD(6832.39) VS(-53.71) NS(-50.64) EW(191.19) TEMP(0.0)

#77 MD(6954.00) Inc(33.4) Azm(355.2) TVD(6909.53) VS(-9.57) NS(-6.57) EW(187.07) TEMP(0.0)

#78 MD(7043.00) Inc(41.5) Azm(359.3) TVD(6980.14) VS(44.46) NS(47.43) EW(184.66) TEMP(0.0)

#79 MD(7133.00) Inc(50.6) Azm(2.6) TVD(7042.54) VS(109.13) NS(112.13) EW(185.87) TEMP(0.0)

#80 MD(7222.00) Inc(61.1) Azm(2.2) TVD(7092.44) VS(182.55) NS(185.61) EW(188.94) TEMP(0.0)

#81 MD(7311.00) Inc(72.2) Azm(359.8) TVD(7127.66) VS(264.09) NS(267.18) EW(190.29) TEMP(0.0)

#82 MD(7401.00) Inc(81.2) Azm(358.7) TVD(7148.34) VS(351.58) NS(354.66) EW(189.13) TEMP(0.0)

#83 MD(7490.00) Inc(86.8) Azm(358.0) TVD(7157.64) VS(440.05) NS(443.10) EW(186.58) TEMP(0.0)

#84 MD(7507.00) Inc(87.3) Azm(358.0) TVD(7158.52) VS(457.02) NS(460.07) EW(185.98) TEMP(0.0)

#85 MD(7569.00) Inc(87.9) Azm(358.2) TVD(7161.11) VS(518.96) NS(521.98) EW(183.93) TEMP(0.0)

#86 MD(7658.00) Inc(89.3) Azm(357.8) TVD(7163.29) VS(607.92) NS(610.90) EW(180.83) TEMP(0.0)

#87 MD(7748.00) Inc(89.9) Azm(356.8) TVD(7163.92) VS(697.87) NS(700.79) EW(176.59) TEMP(0.0)

#88 MD(7837.00) Inc(88.5) Azm(356.8) TVD(7165.16) VS(786.79) NS(789.64) EW(171.62) TEMP(0.0)

#89 MD(7927.00) Inc(85.8) Azm(356.6) TVD(7169.63) VS(876.59) NS(879.38) EW(166.44) TEMP(0.0)

#90 MD(8016.00) Inc(87.0) Azm(356.8) TVD(7175.22) VS(965.34) NS(968.05) EW(161.33) TEMP(0.0)

#91 MD(8105.00) Inc(87.3) Azm(356.1) TVD(7179.65) VS(1054.13) NS(1056.77) EW(155.83) TEMP(0.0)

#92 MD(8194.00) Inc(86.8) Azm(355.7) TVD(7184.23) VS(1142.88) NS(1145.42) EW(149.47) TEMP(0.0)

#93 MD(8283.00) Inc(87.6) Azm(355.7) TVD(7188.58) VS(1231.62) NS(1234.07) EW(142.81) TEMP(0.0)

#94 MD(8372.00) Inc(89.2) Azm(356.3) TVD(7191.06) VS(1320.45) NS(1322.81) EW(136.60) TEMP(0.0)

#95 MD(8461.00) Inc(89.8) Azm(356.1) TVD(7191.84) VS(1409.33) NS(1411.61) EW(130.70) TEMP(0.0)

#96 MD(8550.00) Inc(91.6) Azm(356.1) TVD(7190.75) VS(1498.20) NS(1500.40) EW(124.65) TEMP(0.0)

#97 MD(8640.00) Inc(92.0) Azm(356.3) TVD(7187.92) VS(1588.04) NS(1590.15) EW(118.69) TEMP(0.0)

#98 MD(8729.00) Inc(92.2) Azm(354.9) TVD(7184.66) VS(1676.82) NS(1678.83) EW(111.87) TEMP(0.0)

#99 MD(8818.00) Inc(91.1) Azm(354.5) TVD(7182.10) VS(1765.52) NS(1767.41) EW(103.65) TEMP(0.0)

#100 MD(8907.00) Inc(91.9) Azm(355.0) TVD(7179.77) VS(1854.23) NS(1856.01) EW(95.51) TEMP(0.0)

#101 MD(8997.00) Inc(90.5) Azm(354.9) TVD(7177.88) VS(1943.98) NS(1945.64) EW(87.59) TEMP(0.0)

#102 MD(9085.00) Inc(89.7) Azm(355.7) TVD(7177.73) VS(2031.79) NS(2033.34) EW(80.38) TEMP(0.0)

#103 MD(9175.00) Inc(88.6) Azm(355.2) TVD(7179.07) VS(2121.59) NS(2123.04) EW(73.24) TEMP(0.0)

#104 MD(9264.00) Inc(89.2) Azm(354.9) TVD(7180.77) VS(2210.36) NS(2211.69) EW(65.56) TEMP(0.0)

#105 MD(9353.00) Inc(89.1) Azm(356.6) TVD(7182.10) VS(2299.19) NS(2300.44) EW(58.97) TEMP(0.0)

#106 MD(9442.00) Inc(87.7) Azm(356.6) TVD(7184.58) VS(2388.07) NS(2389.24) EW(53.69) TEMP(0.0)

#107 MD(9531.00) Inc(88.0) Azm(357.3) TVD(7187.92) VS(2476.95) NS(2478.05) EW(48.96) TEMP(0.0)

#108 MD(9621.00) Inc(90.0) Azm(356.3) TVD(7189.49) VS(2566.86) NS(2567.89) EW(43.93) TEMP(0.0)

#109 MD(9710.00) Inc(91.3) Azm(356.4) TVD(7188.48) VS(2655.75) NS(2656.71) EW(38.27) TEMP(0.0)

#110 MD(9799.00) Inc(91.7) Azm(356.1) TVD(7186.15) VS(2744.61) NS(2745.48) EW(32.45) TEMP(0.0)

#111 MD(9888.00) Inc(92.1) Azm(356.4) TVD(7183.20) VS(2833.45) NS(2834.24) EW(26.63) TEMP(0.0)

#112 MD(9978.00) Inc(90.7) Azm(356.6) TVD(7181.00) VS(2923.33) NS(2924.05) EW(21.14) TEMP(0.0)

#113 MD(10066.00) Inc(91.4) Azm(356.3) TVD(7179.39) VS(3011.22) NS(3011.86) EW(15.69) TEMP(0.0)

#114 MD(10156.00) Inc(90.4) Azm(355.9) TVD(7177.97) VS(3101.09) NS(3101.64) EW(9.57) TEMP(0.0)

#115 MD(10245.00) Inc(90.4) Azm(355.6) TVD(7177.35) VS(3189.94) NS(3190.40) EW(2.98) TEMP(0.0)

#116 MD(10334.00) Inc(89.6) Azm(354.9) TVD(7177.35) VS(3278.74) NS(3279.09) EW(-4.39) TEMP(0.0)

#117 MD(10423.00) Inc(89.4) Azm(357.0) TVD(7178.13) VS(3367.60) NS(3367.86) EW(-10.68) TEMP(0.0)

#118 MD(10512.00) Inc(90.0) Azm(356.8) TVD(7178.60) VS(3456.53) NS(3456.73) EW(-15.49) TEMP(0.0)

#119 MD(10602.00) Inc(91.5) Azm(357.1) TVD(7177.42) VS(3546.46) NS(3546.59) EW(-20.28) TEMP(0.0)

#120 MD(10691.00) Inc(90.0) Azm(357.8) TVD(7176.25) VS(3635.41) NS(3635.49) EW(-24.24) TEMP(0.0)

#121 MD(10780.00) Inc(92.0) Azm(358.4) TVD(7174.70) VS(3724.38) NS(3724.42) EW(-27.19) TEMP(0.0)

#122 MD(10869.00) Inc(90.6) Azm(357.5) TVD(7172.68) VS(3813.33) NS(3813.34) EW(-30.37) TEMP(0.0)

#123 MD(10957.00) Inc(90.6) Azm(356.6) TVD(7171.76) VS(3901.27) NS(3901.22) EW(-34.90) TEMP(0.0)

#124 MD(11046.00) Inc(89.7) Azm(354.5) TVD(7171.53) VS(3990.10) NS(3989.94) EW(-41.81) TEMP(0.0)

#125 MD(11135.00) Inc(89.6) Azm(354.5) TVD(7172.07) VS(4078.81) NS(4078.53) EW(-50.34) TEMP(0.0)

#126 MD(11224.00) Inc(88.2) Azm(354.9) TVD(7173.78) VS(4167.53) NS(4167.13) EW(-58.56) TEMP(0.0)

#127 MD(11314.00) Inc(90.0) Azm(355.0) TVD(7175.19) VS(4257.29) NS(4256.77) EW(-66.48) TEMP(0.0)

#128 MD(11429.00) Inc(92.3) Azm(354.5) TVD(7172.88) VS(4371.93) NS(4371.25) EW(-77.00) TEMP(0.0)

TD Projection @
Bit(11481' MD)
Inc:92.3 Azm:354.5
TVD:7170.80'
VS:4423.72'