

GEOLOGICAL REPORT

Larry A. Nicholson

NAD 83
39.5219490
-100.15934720

COMPANY & WELL: Cobalt Energy, Caroline "A" #2-19
 LOCATION: 470 FNL 1756 FEL SW NE NW NE
 SEC 19 TWP 6S RGE 25W
 COUNTY: Graham STATE: Ks

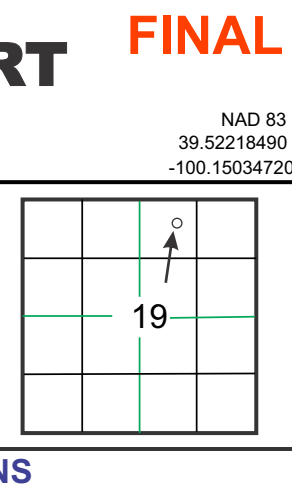
COMPANY: Cobalt Energy, LLC
 API #: 15-065-24159 FIELD: Wildcat
 LEASE: Caroline WELL #: "A" #2-19
 LOCATION: SW NE NW NE
 SURVEY: 470 FNL 1756 FEL
 SECTION: 19 TWP 6S RGE 25W
 COUNTY: Graham STATE: Kansas

CONTRACTOR: Murfin Rig # 16
 SPUD: 11-17-18 @ 10:45
 RTD: 3958 11-23-18 12:22 pm LTD: 3958
 MUD UP AT: 3100
 MUD TYPE: Chemical MudCo Gary

ELEVATIONS
 K.B.: 2615
 D.F.:
 G.L.: 2610
 All measurements from K.B. 2615

CASING RECORD
 Conductor of _____ w/ _____ sx
 Surface 352 of 8.5/8 23# w/ 250 _____ sx
 Production of _____ w/ _____ sx

ELECTRICAL SURVEYS: Pioneer, Neu, Den, Micro



FORMATION TOPS & STRUCTURAL POSITION

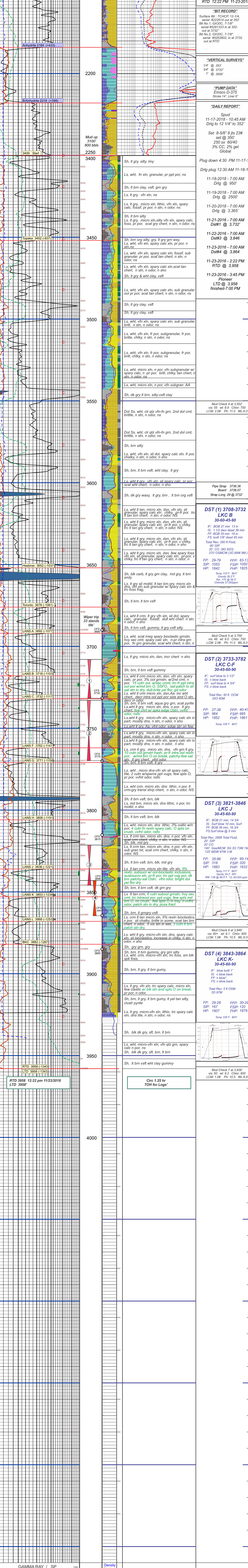
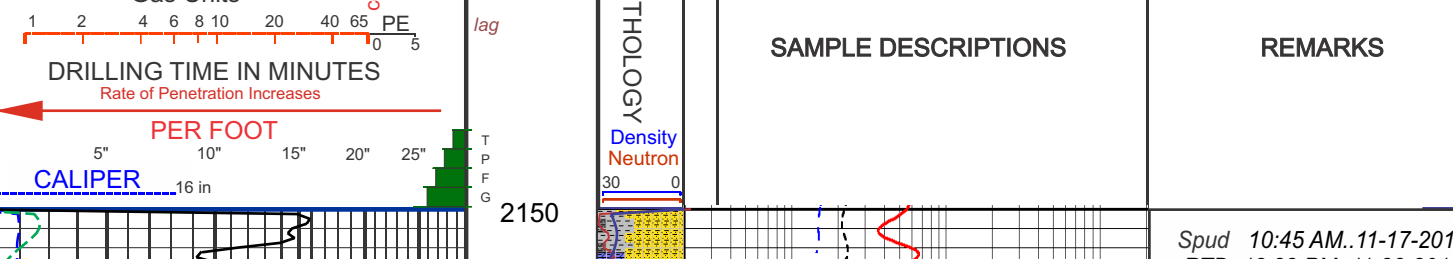
FORMATION	SAMPLE TOPS	SUBSEA DATUM	ELEC LOG TOPS	SUBSEA DATUM	REFERENCE WELL
					A B
Anhydrite	2186	+429	2184	+431	2186 +431 +
B/Anhydrite	2218	+397	2218	+397	2218 +399 -2
Topeka	3454	-839	3452	-837	3456 -839 +2
Heebner	3653	-1038	3652	-1037	3658 -1041 +4
LANS A	3698	-1083	3692	-1077	3698 -1081 +4
LANS G	3771	-1156	3771	-1156	3772 -1155 -1
LANS H	3806	-1191	3806	-1191	3808 -1191 +
LANS J	3836	-1221	3836	-1221	3838 -1221 +
LANS K	3850	-1235	3853	-1238	3852 -1235 -3
LANS L	3866	-1251	3868	-1253	3868 -1251 -2
BKC	3882	-1267	3882	-1267	3882 -1265 -2
RTD	3958	-1343	3958	-1343	3970 -1353
LTD	3958	-1343	3958	-1343	3970 -1353

REFERENCE WELLS
 A: Cobalt Energy, LLC Caroline "A" #1-19 Sec 19 T6S R25W 570 FNL 743 FEL KB 2617
 B: _____

REMARKS & RECOMMENDATIONS:
 Based on sample shows, dst recovery & pressures, 5 1/2 csg was run

LAN 7/92, Modified 5/05, 1/11, 4/12 Hanover, KS 66945 1inch = 25.4mm 8.5 x 97.5 216 mm x 2460 mm

LEGEND



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