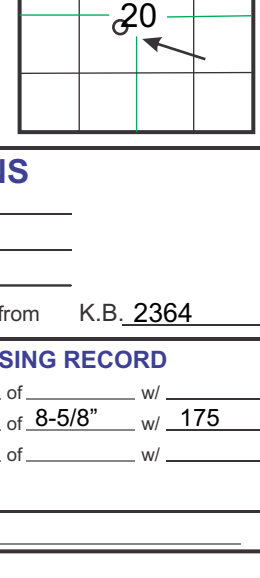


# GEOLOGICAL REPORT

## Larry A. Nicholson

COMPANY **Cobalt Energy, LLC**  
 API # **15-065-23980** FIELD \_\_\_\_\_  
 LEASE **TM Unit "A" 1-20 NW NE NE SW** WELL # **1-20**  
 LOCATION **2490' FSL & 2059' FWL NW NE NE SW**  
 SURVEY **2490' FSL & 2059' FWL**  
 SECTION **20** TWP **7S** RGE **23W**  
 COUNTY **Graham** STATE **Kansas**



CONTRACTOR **Murfin** RIG # **24**  
 SPUD **10-25-13 3:45 pm** COMP. \_\_\_\_\_  
 RTD **3936'** LTD. **3938'**  
 MUD UP AT **3087'**  
 MUD TYPE **Chemical\_MudCo**

**ELEVATIONS**  
 K.B. **2364**  
 D.F. \_\_\_\_\_  
 G.L. **2359**  
 All measurements from K.B. **2364**

SAMPLES SAVED FROM **3350'** TO \_\_\_\_\_ RTD \_\_\_\_\_  
 DRILLING TIME FROM **3350'** TO \_\_\_\_\_ RTD \_\_\_\_\_  
 SAMPLES EXAMINED FROM **3350'** TO \_\_\_\_\_ RTD \_\_\_\_\_  
 GEOLOGICAL SUPERVISION FROM **3350'** TO \_\_\_\_\_ RTD \_\_\_\_\_  
 WELLSITE GEOLOGIST **LARRY A. NICHOLSON**

**CASING RECORD**  
 Conductor \_\_\_\_\_ of \_\_\_\_\_ wf \_\_\_\_\_ sx  
 Surface **261** of **8-5/8"** wf **175** sx  
 Production \_\_\_\_\_ of \_\_\_\_\_ wf \_\_\_\_\_ sx

ELECTRICAL SURVEYS **Pioneer, Den, Neu, Dual, Micro, Sonic**

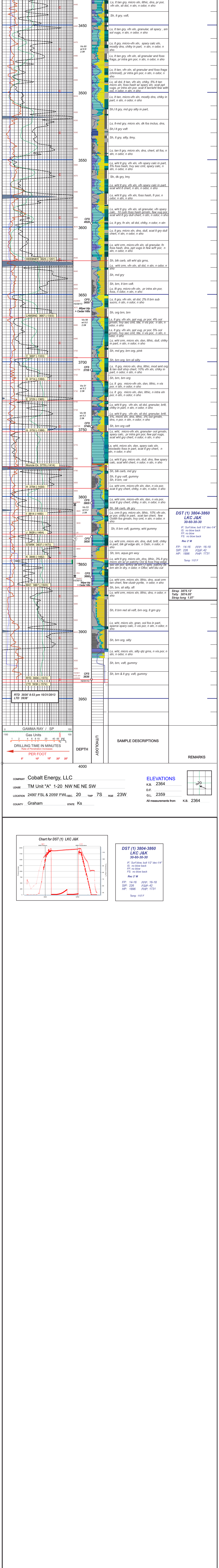
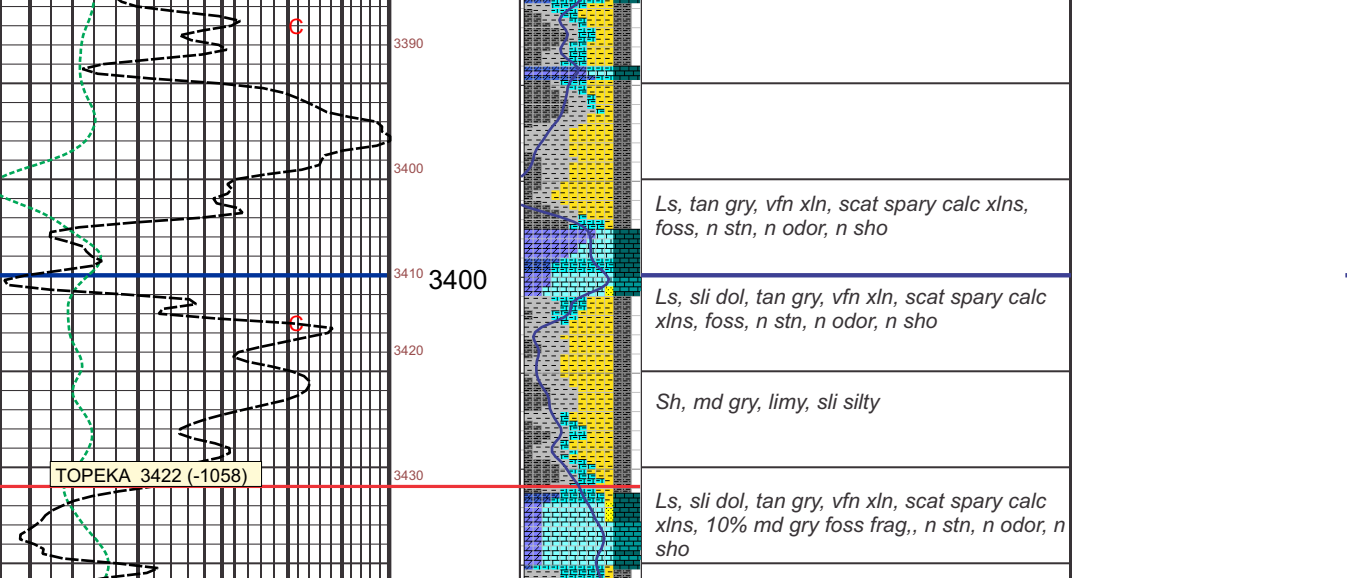
FORMATION	SAMPLE TOPS	SURSEA DATUM	ELEC LOG TOPS	SURSEA DATUM	REFERENCE WELL
					A B
STONE CORAL	2074	+290	2074	+290	
TOPEKA	3422	-1058	3422	-1058	
HEEBNER	3625	-1261	3625	-1261	
LANSING	3667	-1303	3667	-1303	
C	3687	-1333	3687	-1333	
D	3714	-1350	3714	-1350	
F	3729	-1365	3729	-1365	
G	3752	-1388	3752	-1388	
Mundie Ck	3778	-1414	3778	-1414	
BKC	3867	-1503	3867	-1503	
RTD	3936	-1572	3936	-1572	
LTD	3938	-1576	3938	-1574	

REFERENCE WELLS  
 A: \_\_\_\_\_  
 B: \_\_\_\_\_

**REMARKS & RECOMMENDATIONS:**  
**Based on dst results, lower structural position and absent of sample shows the well was P&A.**

LAN 792, Modified 5/05, 11/11, 4/12 Hanover, KS 66645 1inch = 25.4mm 8.5 x 97.5 216 mm x 2460 mm

### LEGEND



COMPANY **Cobalt Energy, LLC**  
 LEASE **TM Unit "A" 1-20 NW NE NE SW** K.B. **2364**  
 LOCATION **2490' FSL & 2059' FWL-BEC** 20 TWP **7S** RGE **23W** D.F. \_\_\_\_\_  
 COUNTY **Graham** STATE **Ks** G.L. **2359** All measurements from K.B. **2364**

**ELEVATIONS**  
 K.B. **2364**  
 D.F. \_\_\_\_\_  
 G.L. **2359**  
 All measurements from K.B. **2364**

**Chart for DST (1) LKC J&K**



**DST (1) 3804-3860 LKC J&K 30-60-30-30**  
 IF: Surf blow, but 1/2" dec-1/4"  
 IS: no blow back  
 FF: no blow back  
 FS: no blow back  
 Rec 2' M  
 FFP: 14-16 FFP: 16-18  
 SIF: 226 FSI: 42  
 HPI: 1896 FHP: 1731  
 Temp 115 F

**Strap 3875.12' Tally 3874.05' Strap long 1.07'**