

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY **Cobalt Energy LLC**

LEASE **Lee "A" #1-12**

FIELD **Wildcat**

LOCATION **771' fml & 1707' fwl**

SEC **12** TWP **6 s** RGE **21 w**

COUNTY **Graham** STATE **Kansas**

CONTRACTOR **Val Energy Inc. Rig #3**

SPUD **7/18/2012** COMP **7/27/2012**

RTD **3540** LTD **3541**

MUD UP **2773'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3100** TO **TD**

DRILLING TIME KEPT FROM **3100** TO **TD**

SAMPLES EXAMINED FROM **3100** TO **TD**

GEOLOGICAL SUPERVISION FROM **3200**

GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

ELECTRIC LOG

SAMPLE

Anhydrite **1668 (+468)**

Base Anhydrite **1698 (+438)**

Heebner Sh. **3239 (-1103)**

Lansing **3284 (-1148)**

Stark Sh. **3446 (-1310)**

BKC **3472 (-1338)**

Granite **3514 (-1378)**

ELEVATIONS

KB **2136'**

DF _____

GL **2126'**

Measurements Are All From **Kelly Bushing**

CASING

CONDUCTOR _____

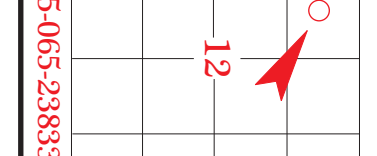
SURFACE **8-5/8" at 392'**

PRODUCTION **X**

ELECTRICAL SURVEYS

Reg Log _____

Log Tech _____



REMARKS: *All pertinent shows were tested and after further log examination the decision was made to plug and abandon this hole.*

Respectfully Submitted
Robert D Hendrix

LEGEND



DEPTH	LITHOLOGY	GAS UNITS	SAMPLE DESCRIPTION	REMARKS
1650	Anhydrite			Anhydrite 1668 (+468)
1700	Base Anhydrite			Base Anhydrite 1698 (+438)
1750				
3100	Limestone		Limestone: white to tan, f-mxn, sl chalky, v cherty, sl fossiliferous, pr interxln por, ns Limestone: white to tan, fxln, sl fossiliferous, pr vug por, ns Shale: gray, black	DST #1 3247-3275 30-60-60-90 1st open: weak blow built to 3" then died back to 2 1/4" 2nd open: weak blow built to 1/2" Rec: 72' slomc 5/95 hydro: 1577-1563 psi lf: 43-59 psi ff: 63-68 psi sip: 706-596 psi bht: 106° F
50			Limestone: white, fxln, sl cherty, fossiliferous, pr interxln por, fr dark spotty to sat stain, slsfo on break, no odor Shale: gray, black, red	
3200			Shale: gray, green, black, red Shale: gray, black, red Limestone: white to tan, fxln, sl chalky, sl fossiliferous, no vis por Limestone: white to tan, fxln, sl chalky, sl cherty, oolitic in part, fossiliferous, no vis por Shale: gray, green, red Limestone: white to tan, fxln, fossiliferous, no por, ns Shale: gray, green, red	DST #2 3187-3230 (straddle) 30-60-60-90 1st open: weak blow built to 2 1/2" 2nd open: weak blow built to 3" Rec: 77' vslocm 2/98 hydro: 1558-1530 psi lf: 28-53 psi ff: 51-74 psi sip: 960-941 psi bht: 106° F
			Limestone: white to tan, fxln, sl cherty, fossiliferous, 3 pieces, fr interxln por, fr dark spotty dark stain, fr sfo on break, fr odor Limestone: white to tan, fxln, fossiliferous, pr interxln por, ns Limestone: white to tan, fxln, fossiliferous, pr interxln por, ns	Geologist on location 3200' at 1:01 Am 7/23/2012
			Shale: black, carbonaceous Limestone: brown, fxln, fossiliferous, pelltoidal, no vis por, ns Shale: gray, green, red, black	Heebner 3239 (-1103)
			Shale: gray, green, red, black Limestone: white, fxln, sl cherty, fossiliferous, gd interxln por, 10% of sample, spotty dark stain, sl sfg, faint odor Limestone: white, fxln, sl cherty, sl chalky, fossiliferous, no vis por, ns Shale: gray, green, red	wt 9.1, vis. 44, lcm 4# Mud-Co, Tyler Lang 8:00am, 7/23/2012
			Limestone: white, fxln, sl chalky, fossiliferous, sl interxln por, 2% of sample, spotty dark stain, sl sfo on break, no odor Limestone: white, fxln, sl chalky, sl cherty, fossiliferous, no vis por, ns	Lansing 3280 (-1144) 8:00am, 7/24/2012
			Limestone: white, fxln, sl chalky, fossiliferous, pr interxln por, 5% of sample, lt spotty to sat stain, 2 pieces with vsf sfo on break, no odor Shale: gray, green, red	
			Limestone: white, f-mxn, cherty, sl chalky, fossiliferous, gd interxln por, 15% of sample, spotty dark stain, sl sfo on break, faint odor Limestone: white, fxln, v-cherty, sl chalky, fossiliferous, no vis por, ns Shale: gray, red Shale: gray, green, red, black	8:00am, 7/25/2012 wt 9.1, vis. 47, lcm 3# Mud-Co, Gary Schmidtberger
			Limestone: white, f-mxn, oolitic, fossiliferous, fr oolitic por, some barren, 5% of sample lt spotty stain, 2 pieces with vsf sfo on break, no odor Shale: gray, green, red	
			Limestone: white to tan, fxln, cherty, pr interxln por, 5% of sample, lt spotty to sat stain, sl sfo on break, no odor Limestone: white to tan, f-mxn, cherty, fossiliferous, fr interxln por, 10% of sample, lt spotty to sat stain, sl sfo with more on on break, no odor Shale: gray, green, red, black	DST #3 3271-3305 30-60-30-30 1st open: weak blow built to 1/2" 2nd open: no blow Rec: 7' m-w-os hydro: 1576-1570 psi lf: 26-30 psi ff: 34-33 psi sip: 646-535 psi bht: 103° F
			Limestone: white, fxln, cherty, no vis por, ns Shale: black, carbonaceous Shale: gray, green, red, black	wt 9.1, vis. 47, lcm 3# Mud-Co, Gary Schmidtberger
			Limestone: white, fxln, cherty, no vis por, ns Shale: gray, red, black	
			Limestone: white to tan, fxln, sl chalky, 2% sample no vis por, lt sat stain, nfo, no odor Limestone: white, fxln, sl chalky, 1% sample no vis por, lt sat stain, nfo, no odor Limestone: white, fxln, sl chalky, soft, 3% sample no vis por, lt sat stain, vsf sfo on break, faint odor	Stark Sh. 3447 (-1311)
			Shale: black, dark gray Shale: gray, red, black	
			Limestone: white, f-mxn, chalky, sl cherty, fossiliferous oolitic in part, no vis por, 12 pieces with dark spotty stain, nfo, no odor Limestone: white, fxln, chalky, sl cherty, no vis por, ns	BKC 3474 (-1338)
			Shale: gray, red Shale: gray, red	
			Limestone: white to tan, f-mxn, chalky, oolitic, fossiliferous, no vis por, ns Shale: gray, red, black	Granite 3515 (-1379)
			Shale: gray, red, black	
			Granite: orange, transparent, black, feldspathic biotitic, no vis por, ns	RTD 3540 (-1404)
				Geologist off location at 5:30am 7/27/2012
				DST #4 3298-3330 30-60-60-60 1st open: BOB in 9 1/2 min 2nd open: BOB 23 min Rec: 613' water 196' mw 30/70 hydro: 1594-1527 psi lf: 31-195 psi ff: 198-390 psi sip: 968-958 psi bht: 109° F chl: 51,000 api rw .117 @ 93.2° F
				DST #5 3342-3393 30-60-30-30 1st open: weak blow built to 2 1/2" 2nd open: weak surface died 15 min Rec: 86' m-w-scum of oil hydro: 1610-1600 psi lf: 56-64 psi ff: 75-75 psi sip: 1065-968 psi bht: 106° F