

Jeff Christian

PETROLEUM GEOLOGIST

Wichita, Kansas

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **MURKIN DRILLING COMPANY**
 LEASE **SAVAGE # 1-34**
 LOCATION **400' FNL & 1440' FWL**

SEC. **34** TWP. **4 S** RING. **30 W**
 COUNTY **DECATUR** STATE **KANSAS**
 FIELD **WILDCAT**

API # **15-039-211153**

CONTRACTOR **MURKIN DRILLING** RIG NO. **8**
 DRILLING STARTED **7/31/2012** COMPLETED **8/9/2012**
 MUD DISC AGED **2994** MUD TYPE **CHEMICAL**
 DRILLING TIME (FEET FROM) **3660** TO **RTD**
 SAMPLES SAVED FROM **3660** TO **RTD**
 SAMPLES EXAMINED FROM **3660** TO **RTD**
 GEOLOGICAL SUPERVISION FROM **3660** TO **RTD**

FORMATION NAME LOG TOP DATE TIME TOP DATE TIME SAMPLE BHC'S

ANHYDRITE	2654'	(-236)	2653'	(-237)
TOPEKA	3743'	(-853)	3740'	(-850)
HEEBNER	3911'	(-1021)	3911'	(-1021)
LANSING	3960'	(-1070)	3960'	(-1070)
STARK	4120'	(-1230)	4019'	(-1229)
BKC	4168'	(-1273)	4169'	(-1272)
CHEROKEE	4370'	(-1480)	4364'	(-1474)
MISSISSIPPIAN	4485'	(-1595)	4482'	(-1592)
ARBUCKLE	4554'	(-1664)	4556'	(-1666)
TOTAL DEPTH	4984'	(-1694)	4980'	(-1690)

MEASUREMENTS FROM LAB. CASING RECORD CONDUIT NONE

ELEVATIONS
 BK **2890'**
 GL **2885'**

DATE	7:00 AM DEPTH	REMARKS
7/31/12	MIRT	SPUD 2:30 pm
8/1/12	470'	DRLG dev. 1 deg. @ 262'
8/2/12	2172'	DRLG
8/3/12	3130'	DRLG
8/4/12	3743'	DRLG
8/5/12	3994'	OB w/ DST # 1 dev. 1/2 deg @ 3994'
8/6/12	4075'	OB w/ DST # 2
8/7/12	4146'	CTCH after DST # 3
8/8/12	4390'	TIH for DST # 4
8/9/12	4580'	TOH for LOG RTD 4580' @ 4:00 am dev. 1 3/4 deg.

Remarks

5 1/2" production casing set to further test the Lansing / KC formation.

Electric log measurements correlate about 1' to 2' deep compared to rotary measurements. Sample tops adjusted to the electric log.

Samples deposited at the Kansas Geological Survey.

Respectfully Submitted,
Jeff Christian
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