Colt Energy, Inc. Geological Report

Well: Allen #11-i Draft: 6/06/2015

360 FSL, 2150 FEL Section 14-T26S-R14E Woodson Co., KS API #: 15-207-29223

Elevation: 923 GL (est. from the surveyed location of Allen #5)

Drilling Contractor: Andrew King (Op. Lic. #34953), dba BAR Drilling, LLC

Spud: 5/22/2015

Surface Casing: 11.75" bore hole, 8 5/8" set at 42.5', cmtd w/ 14 sx of Portland

Under Surface: 6/01/15 (waited on weather – muddy) Drilling fluid: water "native mud" and a little polymer

Production bore hole: 6 3/4"

Rotary Total Depth (RTD): 1382' (6/02/15)

Geophysical E-Log(s): CDL and IES by Osage Wireline (6/03/15)

Production Casing: 1248.65 ' of 4 1/2", 10.5#/ft., includes 4' cmt pup jt., cmtd w/ 145 sx, (6/03/15)

Production Casing: Ran in hole by: BAR Drilling, LLC (6/03/15)

Formation/Member	DL/Spl To	ps Log Tops (Rdd off)	Datum (923)
Lansing Ls		184	739
Base Lansing		447	476
Kansas City Ls		523	400
Stark Sh		614	309
Hushpuckney Sh		652	271
Base Ks City	: #1000#1	679	244
"Old Drillers Log" B. KC		696	227
South Mound Sh		800	123
"Weiser" Ss	(5000)	892	31
Mulberry Coal	1200000	940	-17
Myrick Station Ls	(MANAGE)	968	-45
Anna (Lexington Coal Zone) Sh		973	-50
Ft. Scott ("Oswego") Ls	жини	997	-74
Little Osage (Summit Coal Zone) Sl	ր	1016	-93
Excello Sh	1031 (spl)	1030	-107
Mulky Coal	1035	1034	-111
Squirrel Sand	1044	1048	-125
Bevier Coal	1100 (drlg	time) 1099	-176
Verdigris (Ardmore) Ls	1111	1112	-189
"V" (Croweburg) Sh	1113	1113	-190
Croweburg Coal	DOMEST.	1115	-192
Fleming Coal	1152	1152	-229
Mineral Coal	1166	1170	-247
Scammon Coal	1186 (spl)	1186	-263
"Lower" Cattleman Ss Zone	1188	1188	-265

Formation/Member	Spl Tops	Log Tops (Rdd off)	Datum (923)
Un-named Carb. Zone	1222	1222	-299
Un-Named Coal (Tebo?)		2000	SHARM
Bartlesville Zone "2" Sand	1256	1257	-334
Bartlesville Zone "3" Sand	1291	1292	-369
Un-Named Coal	1321	1321	-398
Riverton Coal (?)	1342	1341	-418
Mississippi	*1378	- 1122	*-455
Rotary Total Depth	1382		-459
E-log TD	-2	1373	-450

The following report is based on microscopic examination of rotary drill cuttings collected on location while drilling, a core taken from the Bartlesville Sand Zone, and a series of open hole logs; depths have been corrected back to the open hole log measurements unless noted.

Note: Drill cuttings were collected, "bagged", and microscopically examined from 1060 to 1100 and 1220 to the total depth of 1382.

Major Zones of Interest:

<u>"Weiser" Sandstone.</u> The open hole log (the log), shows a fair to good porous water sand, with some minor shale breaks, from 892 to 990, should be a good source of water for a water supply well if needed at a later date.

Mulberry Coal, 890-892+. The log indicates about a 1.5 feet coal section with a bulk density of around 1.83.

Anna Shale (Lexington Coal Zone), 973-975. Log reveals no coal present, only black shale.

<u>Little Osage Shale (Summit Coal Zone), 1016+ - 1019.</u> No coal present.

Excello Shale, 1030-1034+/-. Log shows black shale.

Mulky Coal, 1034-36. Log indicates about a 2 feet coal layer with a bulk density of 1.46.

Squirrel Sand Zone:

<u>1048-1050.</u> Sandstone, tans, silt size to fine grain, poor to very poorly sorted, poorly consolidated, friable clusters to loose grains, poor porosity, scattered shale platelets in most clusters, very-very dull to questionable fluorescence, very weak oily odor, scattered hydrocarbon staining, no shows of free oil or gas.

<u>1050-1058.</u> Shale, gray, gray-green, green-gray, silty to somewhat sandy with scattered silty and sand lamina, few clusters with hydrocarbon staining, no shows of free oil.

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Squirrel Sand Zone continued:

<u>1058-1063.</u> Sandstone, gray-tans, tans, silt size to fine with trace medium grain, very poorly sorted, poor to moderately well consolidated, friable clusters with abundant loose grains in sample, poor to fair porosity, micro shale platelets in most, trace micaceous, very weak oil odor, very-very dull fluorescence, scattered hydrocarbon staining and very weak speckled shows of hydrocarbon residue – "dead oil".

<u>Note:</u> Due to the lack of commercial shows of oil and the calculated high water saturations, the Squirrel Sand does not merit further testing.

Bevier Coal, 1099+ - 1100. Log shows less than a foot of coal with a bulk density of 2.11.

<u>Croweburg Coal, 1115+ -1117.</u> The log indicates a little over a foot of coal with a bulk density of 1.67.

Fleming Coal, 1152+ - 1154. Log displays over 1.5 feet of coal with a bulk density of 1.48.

Mineral Coal, 1170-1171+. Log shows about a foot of coal with a bulk density of 1.54.

<u>Scammon Coal, 1186-1187+.</u> Coal, pyritic, less than 1% were "floaters" (had a poor sample to evaluate very good); log indicates a little over 1.5 feet of coal with a bulk density of 1.45.

"Lower" Cattleman Sand, 1187-1193. Silt/sandstone, tans, mostly very fine grain, mostly angular, poorly sorted, moderately well consolidated, friable, poor porosity, fairly silty to shaley, no apparent odor, no to very-very dull fluorescence, light hydrocarbon staining, scattered specks of "dead oil" residue between grains, no shows of free oil or gas, watery.

<u>Un-named Carbonaceous Zone (Tebo?), 1222-1226+.</u> Shale, very-very dark grays, mostly black, gritty textured in part, no coal in samples and the log does not indicate any present.

Bartlesville Sand Zone:

<u>1253-1257+/-.</u> Silt/sandstone, light grays, "dirty" off white, silt size to fine grain, poorly sorted, moderately to well consolidated, friable to semi-firm clusters, poor to very poor porosity, mostly very shaley to somewhat clayish, possible then lenses and lamina within shale, weak odor, dull fluorescence from some clusters, speckled to spotty shows of dark brown free oil and "tacky" hydrocarbon residue from some clusters, no visible shows of gas.

1257-1261. Sandstone, very light tans to very dark browns (color varied on oil content in and on the sand clusters), silt size to medium grain, sub-angular to very angular, very poorly sorted, well consolidated, friable to semi-friable, good to very good inter-granular porosity, scattered shale platelets in some clusters, no to very-very dull fluorescence, very good to strong oily odor, very good to excellent show of dark to very dark brown-black "thick" free oil, few gas bubbles.

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Bartlesville Sand Zone continued:

Note: Cored the Bartlesville Sand Zone from 1261-1282.75+/- (Driller's depths, log depths are about 1-2+/- feet shallower, please see the Core Report.

Bartlesville Sand Zone drill cuttings continued:

<u>1292-1299.</u> Sandstone, various shades of gray to black, silt size to fine with trace medium grain, sub-angular to very angular, poor to very poorly sorted, very poorly consolidated, mostly unconsolidated loose grains with very fine size clusters (need to hold hand under wash screen to catch sample to examine same), hard to tell but seemed to have mostly good porosity (log shows good to very good porosity), very weak to questionable pungent hydrocarbon odor, no fluorescence, no shows of free oil, fair to good shows of hydrocarbon residue – "dead oil".

<u>Note:</u> Fairly poor sample above, lots of shale, Driller added polymer to help clean hole prior to cutting footage and it came up same time as sand.

<u>Un-named Coal (one of the Neutrals / "AW" or "BW"), 1321-1323.</u> Coal, abundant "floaters", no visible shows of gas, log shows a little less than 1 foot and has a bulk density of 2.03.

Riverton Coal (?), 1340.5+/- - 1343. Coal, pyritic, 10-20% were "floaters", no apparent shows of gas, the log indicates a good 2 feet of coal with a bulk density of 1.65.

<u>Mississippi 1378-1382 (Driller's depths, not logged)</u>, Dolomite, off white, "dirty" off white, very-very light grays, trace light tan which was/is glauconitic in part, micro to coarse crystalline, trace off white and very-very light tan limestone fragments, few pieces of tripolitic chert, no shows.

Summary:

End Report

Due to the shows of oil found in the Bartlesville Sand, the decision was made to run production casing for further testing of this sand for commercial production and at a later date to be converted into a water injection well.

Rex R. Ashlock
For: Colt Energy, Inc.