

**BEREXCO, LLC.
DONNA #1-29
NWSW SECTION 29 5S-37W
CHEYENNE COUNTY, KANSAS**

**GEOLOGIST
WILLIAM B. BYNOG**

RESUME

OPERATOR: BEREXCO, LLC.

WELL NAME & NUMBER: DONNA #1-29

LOCATION: NWSW SECTION 29 5S-37W

COUNTY: CHEYENNE

STATE: KANSAS

SPUD DATE: 3-16-2016 COMPLETION DATE: 3-26-2016

ELEVATIONS: GL: 3412 KB: 3423

CONTRACTOR: BEREDCO RIG 10

LOGS: LOG TECH TYPES: RAG, MICROLOG

WELLSITE ENGINEER: NONE

MUD COMPANY: MORGAN MUD

MUD TYPE & ENGINEER: FRESH CHEMICAL

GEOLOGIST: WILLIAM B. BYNOG

HOLE SIZE: 7 7/8

MUD LOGGING BY: NONE

DRILL STEM TEST COMPANY: TRILOBITE

DRILL STEM TEST: DST#1 4285-4360, DST#2 4430-4490,
DST#34640-4825

WELL STATUS: P & A

DISCUSSION

Donna #1-29 5S-37W was drilled a total depth of 5100 feet testing the Lansing Kansas City, Pawnee, and Cherokee and Mississippian formations in Cheyenne County, Kansas. This well was a wildcat drilled with the help of seismic data and well control.

Structurally, Donna #1-29 came in flat to the prognosis and 39 feet high to Junior Megley Trust #1 in section 28 5S-37W.

There were minor shows of dead black stain in the lower Wabunsee and Toronto formations, none worthy of a drill stem test. The first good live oil show was encountered in the Lansing B zone at 4340-50 feet in a fractured limestone with poor porosity. This zone was tested on drill stem test #1 recovering 388 feet of watery mud and muddy water. Drilling continued to the Lansing E zone encountering a Grainstone with poor porosity but good shows. The E was tested on drill stem test #2 recovering only 5 feet of drilling mud. Drilling continued to the Pawnee encountering a poor oil show in a tight limestone. A decision was made to continue drilling to the first Cherokee sand and then run drill stem test #3 on the Pawnee, Fort Scott and upper most Cherokee sand. Drill stem test #3 recovered 2196 feet of muddy water or watery mud with excellent pressures from the upper most Cherokee sand. The remaining Cherokee section had no shows so drilling continue to total depth in the Mississippian formation.

Logs agreed with sample evaluation recording poor to fair porosity development in most zones except for the Lansing B zone and Cherokee sands but proved to be wet on drill stem tests and logs.

A decision was made to plug and abandon based on poor drill stem test recovery and log calculations.

Donna #1-29 Sample Descriptions

3900-50 SHALE red,soft,very argillaceous with thin LIMESTONE buff,hard,sandy in part,dirty,poor porosity,no shows

FORAKER

3950-66 LIMESTONE buff,very hard,silty in part, dirty,argillaceous,poor porosity,no shows with thin SHALE aaa

3966-4000 LIMESTONE buff,pale yell,slightly hard,sandy in part,fossils,dense with thin SHALE as above

4000-20 LIMESTONE off white,firm,chalky,slightly fossils,poor vis porosity,no shows

4020-40 LIMESTONE off white,buff,fossils,chalky in part,poor porosity,abundant Chert orange

4040-70 SHALE red,green,firm,very silty in part

TOPEKA

4070-4100 LIMESTONE white,firm,very chalky,very sandy in part,poor to fair porosity,trace black dead stain, with very thin SHALE green,waxy

4100-30 LIMESTONE white,soft to firm,very chalky, poor vis porosity,no shows

4130-40 SHALE black,firm,very carbonaceous

4140-50 LIMESTONE white,firm,very chalky,poor porosity,spotty black dead stain

Donna #1-29 Sample Descriptions

4150-70 SHALE red,very silty,becoming SILTSTONE in part

4170-85 LIMESTONE buff,hard,blocky, fnly microcrystalline,chalky in part,poor porosity,trace black dead stain

4185-4205 SHALE as above with thin SANDSTONE white,friable,very fine grained,very chalky,poor porosity,no shows

OREAD

4205-10 LIMESTONE off white,firm, microcrystalline,fair crystalline porosity,no shows

4210-24 LIMESTONE white,soft,very chalky,poor vis porosity,no shows

4224-30 SHALE black,firm,very carbonaceous

4230-36 LIMESTONE off,white,firm, microcrystalline,fair intxn porosity,trace black dead stain,trace pyrite

4236-50 SHALE red,firm,very silty,grading to SILTSTONE red,friable,sandy,poor porosity

4250-60 SHALE red,firm,very argillaceous

4260-68 LIMESTONE white,firm,very chalky,poor vis porosity, spotty black dead stain

4268-79 SHALE as above

Donna #1-29 Sample Descriptions

LANSING A

4279-90 LIMESTONE white,firm,chalky,poor to fair microcrystalline porosity,no shows,dism pyrite

4290-4300 SHALE as above with thin SANDSTONE off white, slightly hard,very fine grained,wsrtd,dense calcareous cement,poor porosity,no shows

4300-10 SHALE red,firm,silty

4310-20 LIMESTONE white,firm,very chalky,poor vis porosity, very spotty black dead stain,nfo

4320-28 SHALE green,firm,waxy in part

B

4328-4240 LIMESTONE white,firm,sub chalky to very chalky,poor vis porosity,trace black dead stain,nfo

4340-50 LIMESTONE buff,pale gray,very hard,dense,blocky,poor porosity,very spotty live oil stain along fractures,good live cut,poor show free oil

4350-66 SHALE red,firm,silty

4366-76 LIMESTONE white,slightly hard,microcrystalline,chalky in part,fossils,poor to fair crystalline porosity,no shows

Donna #1-29 Sample Descriptions

4376-84 SHALE green,gray green,firm,silty

C

4384-92 LIMESTONE white,firm,sub chalky to very chalky, slightly fossils,poor vis porosity,no shows

4392-4400 LIMESTONE buff,cream,very hard,dense, blocky,no porosity,no shows

4400-24 SHALE black carbonaceous,green,red,argillaceous with very thin LIMESTONE gray,hard,fossils,shaly

D

4424-40 LIMESTONE buff,cream,very hard,dense, crptoxln,chalky in part,no shows

4440-50 SHALE red,green,silty,sandy in part

4450-56 LIMESTONE buff,very hard,dense,blocky, crptoxln,no shows

4456-68 SHALE red,firm,silty in part

E

4468-84 GRAINSTONE off white,firm,very fossils,slightly chalky,poor to trace fair pinpoint and intg vuggy,spotty to even live brown stain,very good cut,good show free oil

4484-90 SHALE green,gray green,firm,waxy in part,some black,carbonaceous

Donna #1-29 Sample Descriptions

4490-4510 SHALE red,silty,green waxy in part,some marn slightly hard

4510-36 LIMESTONE buff,tan,very hard,dense,very fnly crystalline,chalky in part,some Chert orange,tan,no shows with thin SHALE as above

4536-44 LIMESTONE as above abundant Chert orange

4544-62 SHALE red,green,as above with thin SANDSTONE white,hard,very fine grained,blocky,dense chalky cement,poor porosity,very spotty black dead stain,nfo

4562-70 LIMESTONE buff,pale gray,very hard,dense,very fnly crystalline,poor porosity,no shows

4570-90 SHALE red,soft,very argillaceous with very thin LIMESTONE as above

4590-4612 SHALE green,gray green,gray,marn,red,firm, flaky,some black carbonaceous

4612-24 LIMESTONE white,firm,crystalline,chalky,fair inxln porosity,no shows

4624-34 SHALE green,gray green,marn,firm as above

4634-52 LIMESTONE tan,very hard,dense,crptoxln, blocky,some Chert tan,poor porosity,no shows

Donna #1-29 Sample Descriptions

4652-70 Shale black,gray black,firm,fissile,carbonaceous

PAWNEE

4670-80 LIMESTONE white,slightly hard,very slightly oolic,chalky, abundant Chert white,poor pinpoint porosity,very rare live brown stain,poor cut

4980-90 LIMESTONE as above becoming very chalky,poor porosity,no shows

4690-98 SHALE black,firm,fissile,very carbonaceous

4698-4706 LIMESTONE white,firm,very chlky,poor vis porosity,no shows

4706-20 LIMESTONE as above very abundant Chert white

4720-26 SHALE black,firm,fissile,very carbonaceous

4726-40 LIMESTONE white,firm,very chalky,poor vis porosity, abundant Chert white,cream

4740-50 LIMESTONE brown,very hard,dense,crptoxln with abundant Chert gray,black

CHEROKEE SHALE

4650-70 SHALE black,firm,fissile,carbonaceous with thin LIMESTONE tan,very hard,very dense,blocky,some Chert brown

4770-85 LIMESTONE buff,pale gray,very hard,very dense, crptoxln,blocky,no shows,pyrite

Donna #1-29 Sample Descriptions

nods, trace Chert cream

4790-4812 SHALE green, gray green, black, firm, fissile with very thin LIMESTONE brown, very hard, very dense, crptoxln

4812-16 SANDSTONE translucent, slightly hard, fine to coarse grained, rounded to angular, poor sorted, wcmnt, calcareous, poor vis porosity, no shows

4816-24 SANDSTONE translucent, slightly hard, m to very coarse grained, sbang to angular, psrtd, fair intg porosity, trace glauconite, nd

4824-50 SANDSTONE translucent, firm, fine to coarse grained, rounded to sbang, psrtd, fair intg porosity, no shows with thin SH red, green, gray, marn, firm, fissile

4850-72 SHALE as above with thin SANDSTONE as above, no shows

4872-4918 LIMESTONE buff to pale gray, very h dense, crptoxln to microcrystalline, chalky in part, some Chert orange with thin SHALE as above

4918-60 SHALE red, green, gray, some yell, firm, silty in part, very abundant pyrite

4960-68 SANDSTONE translucent, friable, fine to m grained, rounded, wstrd, good intg porosity, no shows

MISSISSIPPIAN

4918-30 SHALE var color, as above with thin SANDSTONE as above becoming hard, dense sileous cement, poor vis porosity, no shows

Donna #1-29 Sample Descriptions

4980-90 CHERT white,cream,orange,very hard, fresh,sharp

4990-5010 LIMESTONE cream,firm,fnly microcrystalline,sub chalky,poor vis porosity,no shows abundant Chert as above with thin SHALE as above

5010-50 LIMESTONE cream,light tan,hard,microcrystalline, silty in part,poor to fair porosity,no shows abundant Chert with thin DOLOMITE buff,very hard,dense,crptoxln

5050-5100 LIMESTONE buff,light gray,hard,dense,crptoxln to microcln,chalky in part,poor vis porosity,no shows abundant Chert as above with thin SHALE and DOLOMITE as above

RTD 5100'

LTD 5101'