

**BEREXCO, LLC.  
SDMS #1-23  
SWSWSE SECTION 23 1S-36W  
RAWLINS COUNTY, KANSAS**

**GEOLOGIST  
WILLIAM B. BYNOG**

## RESUME

OPERATOR: BEREXCO, LLC.

WELL NAME & NUMBER: SDMS #1-23

LOCATION: SWSWSE 23-1S-36W

COUNTY: RAWLINS

STATE: KANSAS

SPUD DATE: 1-30-2015 COMPLETION DATE: 2-7-2015

ELEVATIONS: GL: 3302 KB: 3313

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 4110-4148, DST #2 4260-4340,  
DST #3 4318-4470

WELL STATUS: RAN 4 1/2" PRODUCTION CASING

## DISCUSSION

SDMS # 1-23 SWSWSE SECTION 1S-36W was drilled a total depth of 4,600 feet testing the Lansing Kansas City in Rawlins County, Kansas. This well was drilled with the help of seismic data and well control.

Structurally, SDMS #1-23 came in 17 feet low to the prognosis and low to productive wells in the area.

As a result of running low there were poor sample shows of dead oil stain and poor porosity development in the Foraker.

The Oread was the first quality live oil show, tested on drill stem test #1 recovering only 10 feet of mud and low pressures. The Lansing A zone had no shows so drilling continued to the B zone. The B zone was associated with a good drilling break and good sample shows. Drill stem test # 2 on the B zone recovered 570 feet of total fluid, 30 feet mud cut oil, 180 feet of oil cut mud, 240 feet of oil and water cut mud and 120 feet of oil and mud cut water. The C, D and E zones all had no live oil shows and tested 460 feet of total fluid, 340 feet of mud and 120 feet of watery mud.

Logs agreed with sample evaluation recording fair porosity development but low resistive, porous zones indicating water or depleted reservoirs.

A decision was made to set 4 ½" production casing based on the Lansing B zone drill stem test and to dispose of the water in a nearby water disposal well.

SDMS #1-23.SAMPLE DESCRIPTIONS

3800-14 SHALE red,firm,chalky,argillaceous

3814-20 LIMESTONE white,firm,slightly oolitic,chalky,poor to fair vis porosity,spotty black dead stain,no free oil

3824-30 SHALE gray green,firm,waxy

FORAKER

3830-44 LIMESTONE gray,tan,very hard,dense,fossils in part,abundant Chert orange

3844-62 LIMESTONE buff,firm,very sandy,very fine grained,blocky,poor porosity,no shows

3862-76 SHALE red,slightly hard,very silty

3876-92 LIMESTONE buff, hard,blocky,slightly fossils,poor porosity,no shows

3892-3962 SHALE red,soft,very argillaceous

3962-4006 SHALE as above with thin LIMESTONE buff,very hard,dense,blocky,poor porosity,no shows

TOPEKA

4006-20 LIMESTONE white,firm,chalky,sandy in part,poor vis porosity,no shows

4020-32 SHALE red,soft,very argillaceous

## SDMS #1-23.SAMPLE DESCRIPTIONS

4032-50 LIMESTONE buff,hard,dense,blocky,poor porosity,no shows

4050-70 SHALE as above with thin LIMESTONE as above

4070-86 LIMESTONE white,firm,shchky,slightly fossils,sandy in part,poor vis porosity,no shows

4086-4139 SHALE red,maroon,green,firm,very silty with thin LIMESTONE buff,very hard,dense,blocky,no shows

OREAD

4139-4144 LIMESTONE white,firm,oolitic,chalky in part,fair intergranular vuggy porosity,very spotty live light brown stain,good cut,no free oil

4144-60 LIMESTONE white,very soft,very chalky,poor vis porosity,no shows

4160-4202 LIMESTONE buff,pale gray,very hard,dense,blocky, soem Chert orange

4202-26 LIMESTONE pale gray,hard,dense,blocky with thin SHALE green,soft,argillaceous,sandy in part

4226-48 SHALE red,very soft,very argillaceous

LANSING A

4248-52 LIMESTONE buff,hard,slightly fossils,chalky in part,poor visisble porosity,no shows

## SDMS #1-23.SAMPLE DESCRIPTIONS

4252-70 LIMESTONE buff,vhd,very dense,blocky,crptoxln,no shows

4270-75 SANDSTONE green,firm,very fine grained,argillaceous,calcareous,no vis porosity,no shows

4275-4302 SHALE red,very soft,very argillaceous with thin LIMESTONE buff,very hard,dense,crptoxln,trace black dead stain

### B ZONE

4302-06 GRAINSTONE white,firm,fossils,oolitic,fuss,slightly chalky,fair intergranular porosity,spotty to even live brown stain,very good fast cut,good show free oil

4306-14 LIMESTONE white,buff,slightly fossils,chalky in part,poor to fair pinpoint vuggy and moldic porosity,very spotty live light brown stain,gd fast cut,poor show free oil

4314-18 LIMESTONE buff,very hard,dense,blocky,crptoxln,no shows

4316-40 SHALE green,firm,silty in part with thin LIMESTONE buff,very hard,dense,crptoxln,no shows

4340-64 SHALE red,green,firm,fissile

### C ZONE

4364-78 LIMESTONE cream,slightly hard,microcrystalline,slightly fossils,chalky in part,poor vis porosity,no shows

## SDMS #1-23.SAMPLE DESCRIPTIONS

4378-4410 SHALE red,green,firm,fissile with thin LIMESTONE buff,very hard,dense,crptoxln,no shows

### D ZONE

4410-20 LIMESTONE cream,slightly hard,slightly fossils,chalky in part,poor microcrystalline porosity,no shows

4420-30 SHALE green,firm,fissile, with thin LIMESTONE buff,pale gray,very hard,dense,blocky,no shows

4430-40 SHALE green,red,firm,fissile,waxy in part

4440-54 SHALE red,soft,very argillaceous,gummy

### E ZONE

4454-62 LIMESTONE cream,hard,very fnly microcrystalline,slightly fossils, blocky,poor vis porosity,trace rare black dead stain,no free oil

4462-72 LIMESTONE white,firm,very chalky,poor vis porosity,no shows

4462-90 SHALE red,firm,silty

### F ZONE

4490-4500 LIMESTONE cream,buff,very hard,dense,blocky,crptoxln,no shows

## SDMS #1-23.SAMPLE DESCRIPTIONS

4500-54 SHALE red,soft,very argillaceous with interbedded LIMESTONE buff,palegy,very hard,dense,crptoxlm,no shows

4554-4600 SHALE red brown,slightly hard,some silty in part

RTD 4600'

LTD 4605'