# BEREXCO, LLC.
# PETRACEK #6
# NENW SECTION 9 4S-27W
# DECATUR COUNTY, KANSAS

**GEOLOGIST**

**William B. Bynog**

# RESUME

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| OPERATOR: | BEREXCO, LLC. |
| WELL NAME & NUMBER: | PETRACEK #6 |
| LOCATION: | NE NW SECTION 9 4S-27W |
| COUNTY: | DECATUR |
| STATE: | KANSAS |
| SPUD DATE: 7-12-2017 | COMPLETION DATE: 7-24-2017 |
| ELEVATIONS: | GL: 2664 KB: 2672 |
| CONTRACTOR: | BEREDCO RIG 2 |
| LOGS: GEMINI | TYPES: CNL, DIL & ML |
| 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 3515-75, DST#2 3576-3598, DST#3 3610-30, DST#4 3640-55, DST#5 3654-3725 |
| WELL STATUS: | PRODUCTIVE |

# DISCUSSION

Petracek #6 was drilled a total depth of 4150 feet testing the Lansing Kansas City, Marmaton, Arbuckle and Granite Wash formations in Decatur County, Kansas. This well was drilled in old Petracek Field discovered in the 1960's, located northwest of Jennings Kansas.

Petracek #6 came in two feet low to prognosis and high to nearby offsets. As a result of running high there were multiple good quality sample shows in many different zones including the Toronto, Lansing Kansas City zones A, B, C, G, H and J. All these zones have very good hydrocarbon shows and were tested with favorable results. There were some minor shows uphold in the Burlingame formation at 3312 feet, not worthy of a drill stem test. Testing started with the Toronto and Lansing A zones recovering only 53 feet of mud on drill stem test #1. Drilling continued to the B zone encountering a good drilling break and very good sample shows. The B zone was tested on drill stem test #2 recovering 1749 feet of gas in pipe and 1104 feet of total fluid (988 feet of clean oil and 116 feet of heavy gas and oil cut mud) with great pressures. Drill stem test #3 on the C, D and E zones recovered 5 feet of oil cut mud (3% oil) with very low depleted pressures. There were very good oil shows in the Lansing Kansas City G zone, prompting drill stem test #4. The G zone tested 59 feet of total fluid (25 feet of clean oil and 34 feet of oil cut watery mud). Drill stem test #5 on the H, I and J zones recovered 467 feet of gas in pipe, 55 feet of clean oil and 73 feet of heavy oil and gas cut mud with great pressure data, especially for an old field.

Logs indicated the Lansing zones A through J zones all have fair porosity development and high resistivity. A decision was made to set production pipe based on very good sample shows, great drill stem test recoveries, favorable log calculations and structural relationship.

Petracek #6 Sample Descriptions

3100-16 LIMESTONE off white,firm,very dirty,argillaceous

3116-40 SHALE red,very soft,very gummy

3140-80 LIMESTONE cream,firm,chalky,poor porosity, with SHALE as above

3180-86 LIMESTONE buff,pale yell,firm,blocky,chalky in part,trace Chert white

3186-3260 SHALE gray,slightly hard,very silty in part,blocky, becoming slightly carbonaceous at base

3260-76 LIMESTONE buff,pale yell,blocky,microcrystalline,poor porosity,no shows with thin SHALE as above

3276-80 LIMESTONE pale gray,firm,microcrystalline to microsuc texture,poor crystalline porosity,very spotty live brown stain,fair cut

3280-88 LIMESTONE buff,pale yell,hard,blocky,very fnly crystalline,no shows

3288-96 SHALE red,green,gray,very color

BURLINGAME

3296-36 LIMESTONE buff,pale gray,hard,dense,argillaceous in part,poor porosity,no shows with interbedded SHALE as above

3236-58 SHALE red,very soft,very argillaceous

TOPEKA

3358-84 LIMESTONE off white,hard,blocky,very fnly microcrystalline,fossils in part,poor porosity,no shows with thin SHALE as above

3384-3414 SHALE red,very soft,very argillaceous,gummy

3414-32 LIMESTONE cream,hard,blocky,fossils,dense matrix,very fnly crystalline,very poor pinpoint porosity with very spotty black dead stain

3432-42 LIMESTONE white,firm,very chalky,poor vis porosity,no shows

3432-66 SHALE red,green,very soft,very argillaceous,gummy

3466-72 GRAINSTONE white,firm,very fossils,oolites,fair intergranular fossils porosity,spotty thick black stain,good cut

3472-3490 SHALE as above very argillaceous,some black,firm, carbonaceous

OREAD

3490-3500 LIMESTONE pale gray,hard,dense,argillaceous,poor porosity,no shows

3500-02 GRAINSTONE white,firm,very oolitic,fair intergranular porosity,spotty black tar dead stain,good cut

3502-20 LIMESTONE white,cream,hard,blocky,very fnly crystalline,abundant chalky, poor porosity,trace black dead stain

HEEBNER

3520-24 SHALE black,firm,blocky,very carbonaceous

3524-28 LIMESTONE white,cream,very hard,very dense, crptoxln,blocky

3528-48 SHALE red,very soft,very gummy

TORONTO

3548-58 LIMESTONE pale gray,hard,slightly fossils,micro crystalline,chalky in part,poor pinpoint vuggy porosity,very spotty live brown stain, good cut,nfo

3558-66 SHALE as above

LANSING A

3566-70 LIMESTONE cream,hard,microcrystalline dense matrix, fair vuggy crystalline porosity,spotty live brown stain,good cut,good odor,poor show free oil

3570-80 LIMESTONE cream,very hard,dense,crptoxln,no shows

3580-96 SHALE red,very soft,very argillaceous, very abundant pyrite nods

B

3596-3600 LIMESTONE cream,firm,microsuc texture,very fossils,sandy in part,fair microcrystalline and intergranular fossils porosity,spotty to even live light brown stain,good cut,good odor,trace free oil

3598-3604 SHALE as above

C

3604-20 LIMESTONE white,firm to hard,blocky,dense, crptoxln,poor porosity,trace poor pinpoint porosity,very spotty brown stain,poor cut,abundant very chalky,abundant Chert amber with very thin SHALE as above

3620-24 LIMESTONE cream,firm,oolitic,poor to fair pinpoint fossils porosity,spotty live brown stain,good cut,nfo

3624-34 SHALE red,firm,slightly fissile

D

3634-40 LIMESTONE white,hard,blocky,dense,very chalky in part,crptoxln,abundant Chert gray

G

3640-46 GRAINSTONE white to cream,slightly hard,very oolitic,microcrystalline,poor to fair crystalline and intergranular vuggy porosity,spotty to even live brown stain,good cut,fair odor,nfo

3646-58 LIMESTONE as above white to cream,hard,blocky,dense,abundant chalky,trace Chert gray

3658-70 SHALE var color red,green as above

H

3570-75 LIMESTONE white to cream,hard,blocky,dense,chalky in part, fnly microcrystalline,slightly oolites,poor to pinpoint spotty vuggy porosity with very spotty brown stain,good cut,nfo

3675-79 LIMESTONE as above, very dense,chalky in part,no shows

3679-3714 SHALE as above some very sandy in part,no shows

J

3714-20 LIMESTONE white,hard,slightly oolitic,chalky in part, poor pinpoint vuggy porosity,very spotty brown stain,fair cut,slightly odor,trace free oil

3720-34 SHALE, green,black,firm,fissile,slightly carbonaceous

K

3734-48 LIMESTONE white,hard,crptoxln,abundant chalky in part.poor vis porosity,no shows trace Chert white with thin SHALE as above

3748-54 SHALE green,gray,black,firm,fissile

3751-56 LIMESTONE white to cream,firm,very chalky,poor porosity,no shows

3756-62 LIMESTONE light tan,very hard,very dense,blocky, crptoxln,very poor porosity,no shows

BKC

3762-67 SHALE gray,green,firm,fissile

3767-76 SANDSTONE white to pale green,firm,very fine grained,clay filled,poor porosity,no shows

3776-84 SHALE green,some red,firm,fissile,waxy

3784-92 LIMESTONE cream,very hard,crptoxln,blocky,poor porosity,no shows

3792-3810 SHALE gray,firm,fissile

3810-96 SHALE red,soft,very argillaceous,gummy with thin streaks LIMESTONE white,firm,very chalky,no shows

3896-10 LIMESTONE white,soft,very chalky,no shows with thin SHALE as above

3910-66 SHALE green,gray,firm,fissile

3966-4000 SHALE red,soft,very argillaceous,gummy

4000-10 SHALE as above with some LIMESTONE cream,hard,dense,no shows abundant Chert pale yell

4010-16 SANDSTONE white to pale yell,friable,fine to m grained,sub angular,psrtd,green biotite inclusions,poor porosity,no shows

4016-20 GONGLOMERATE quartz,granite,chert angular fragments,shale and limestone as above

GRANITE WASH

4020-86 GRANITE WASH coarse pink,red granite grains with biotite,abundant clear quartz grains,blocky

GRANITE

4086-4150 GRANITE pink to red,biotite,abundant quartz coarse grains becoming less weathered

RTD 4150

LTD 4139