BEREXCO, LLC. MEARS A # 2-9 NESE SECTION 9 1S-37W CHEYENNE COUNTY, KANSAS

GEOLOGIST WILLIAM B. BYNOG

MEARS A # 2-9 SAMPLE DESCRIPTIONS BEREDCO DRILLING RIG 10, DRILLING 7 7/8 HOLE

ANHYDRITE 3202(+48) S
3208(+46) L
BASE 4245(+9) S
3240(+14) L
MEARS A 1 to 9 SAMPLE DESCRIPTIONS
3500-3660 SHALE red,firm,very silty,argillaceous
3660-82 LIMESTONE h,firm,fossils, chalky,poor porosity,no shows
3682-3722 SHALE as above
3722-70 LIMESTONE white, slightly hard, very sandy, poor porosity, no shows with thin interbed SHALE as above

FOAKER

 $3770\text{-}3800 \ LIMESTONE \ white, hard, dense, slightly \ chalky, sandy, poor \ porosity, no \ shows, abundant \ Chert \ orange$

3800-20 LIMESTONE white, pale green, firm, very sandy, poor porosity, abundant Chert orange

3820-72 LIMESTONE gray,hard,very fossils, sandy in part,argillaceous,poor porosity,no shows with thin SHALE d gray,firm,silty

3872-3926 SHALE red, firm, silty, argillaceous with thin LIMESTONE buff, hard, slightly fossils, poor porosity, rare dead black stain

3926-44 LIMESTONE buff,hard,fossils,chalky in part,poor porosity,spotty dead black stain

3944-66 SHALE as above

3966-76 LIMESTONE buff,hard,fossils, dense,poor porosity,spotty black dead stain

3976-90 SHALE as above

TOPEKA

3990-4000 LIMESTONE buff,pale yell, very hard,dense,blocky,no shows

4000-42 SHALE red, soft, silty, very argillaceous with interbed LIMESTONE as above

4042-75 LIMESTONE white, buff, very fossils, chalky, granular, poor porosity, no shows, thin SHALE as above

4075-90 LIMESTONE pale gray, buff, very hard, dense, blocky, smth texture, no shows

4090-4122 SHALE as above

4122-32 LIMESTONE white, firm, oolitic, chalky in part, poor to fair intg and pinpoint vuggy porosity, spotty to even live brown stain, very good cut, fair odor, good show free oil

OREAD

4132-66 LIMESTONE buff, hard, blocky, dense, poor porosity, no shows

4166-4210 SHALE dark gray, red, green, firm, silty, sandy in part

LANSING A

4210-14 GRAINSTONE white, firm,oolitic,chalky in part,poor to fair intg and crystalline porosity,spotty live brown stain,good cut,good show free oil

4210-30 LIMESTONE buff, very hard, dense, blocky, some sandy in part, no shows

4230-35 SANDSTONE white, tan, firm, very fine grained, clay fled, poor porosity, no shows

4235-65 SHALE red, firm, silty
B ZONE
4263-70 I IMESTONE white buffhord dightly family and a second of the sec
4263-70 LIMESTONE white, buff, hard, slightly fossils, poor vuggy porosity, spotty live black thick stain, good cut, good show free oil
4270 4205 I IMESTONE buff your hard dames and between any like law 1 1 11 11 CILLIE
4270-4295 LIMESTONE buff, very hard, dense, smth texture, very blocky, no shows with thin SHALE green, firm, fissile
4295-4318 SHALE green, firm, fissile, silty in part
C ZONE
4318-26 GRAINSTONE white, firm, very oolitic, fair to trace good intg porosity, spotty to even live brown stain, very good cut, good show free oil
4326-40 LIMESTONE buff, very hard, dense, blocky, smth texture, chalky in part, no shows
4340-60 SHALE green, gray, firm, fissile, waxy
D ZONE
42.60.75 I B (EGTONE) 1
4360-75 LIMESTONE pale gray, buff, very hard, dense, slightly fossils, chalky in part, poor porosity, no shows
4375-82 SHALE as above

4476-88 LIMESTONE buff, slightly hard, oolitic, chalky in part, poor porosity, no shows

4488-4556 SHALE as above with thin LIMESTONE buff,pale gray,hard,dense,blocky,slightly argillaceous

4556-6884 LIMESTONE white, buff, hard, blocky, fossils, poor porosity, no shows

4584-4606 SHALE red, green, gray, firm, fissile, waxy with thin LIMESTONE as above

PAWNEE

4608-18 GRAINSTONE white, firm, very oolitic, fair intg porosity, spotty live brown stain, good cut, good show free oil

4618-25 LIMESTONE gray, very hard, dense, blocky, argillaceous, no shows

3625-40 SHALE green, gray, firm, fissile, waxy

4640-4700 LIMESTONE pale gray, gray, very hard, dense, blocky with thin SHALE green, dark gray, firm, fissile

4700-06 SANDSTONE white, friable, very fine grained, clay fled, calcareous, poor porosity, no shows

4706-16 SHALE as above

4716-26 LIMESTONE white, firm, chalky, sandy in part, poor porosity, no shows with thin SHALE as above

4726-38 LIMESTONE white, chalky, very sandy, no shows, some SANDSTONE white, pale green, very fine to coarse grained, psrtd, angular, calcareous cement, no shows

4738-44 LIMESTONE buff, very hard, dense, blocky, no shows, one piece with rare brown live stain, faint cut

4744-54 SANDSTONE pale green, translucent, some pinkish grains, hard, very fine to coarse grained, psrtd, sileous cement, poor porosity, no shows with thin SHALE as above

RTD 4754'

LTD 4760'