



BEREXCO

Scale 1:240 Imperial

Well Name: SC UNIT #1-30
Surface Location: NW SW SW SE Sec. 30 - 14S - 14W
Bottom Location:
API: 15-167-24034
License Number: 34318
Spud Date: 8/4/2015 Time: 8:45 PM
Region: RUSSELL COUNTY KANSAS
Drilling Completed: 8/10/2015 Time: 5:56 AM
Surface Coordinates: 470' FSL & 2555' FEL
Bottom Hole Coordinates:
Ground Elevation: 1770.00ft
K.B. Elevation: 1777.00ft
Logged Interval: 2200.00ft To: 3280.00ft
Total Depth: 3280.00ft
Formation: LANSING - KANSAS CITY; ARBUCKLE
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

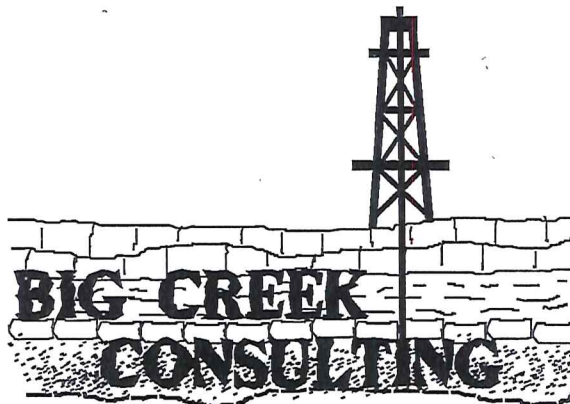
OPERATOR

Company: BEREXCO, LLC
Address: 2020 N. BRAMBLEWOOD
WICHITA, KS 67206
Contact Geologist: BRUCE MEYER
Contact Phone Nbr: (316) 265-3311
Well Name: SC UNIT #1-30
Location: NW SW SW SE Sec. 30 - 14S - 14W
API: 15-167-24034
Pool:
State: KANSAS
Field: GORHAM
Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -98.9190498
Latitude: 38.7997190
N/S Co-ord: 470' FSL
E/W Co-ord: 2555' FEL

LOGGED BY



Company: BIG CREEK CONSULTING, INC.
Address: 1909 MAPLE
ELLIS, KS 67637

Phone Nbr: (785) 259-3737
Logged By: GEOLGIST

Name: JEFF LAWLER / STEVE REED

CONTRACTOR

Contractor: AMERICAN EAGLE DRILLING, LLC
Rig #: 3
Rig Type: MUD ROTARY
Spud Date: 8/4/2015

Time: 8:45 PM

Rig #: 3
 Rig Type: MUD ROTARY
 Spud Date: 8/4/2015
 TD Date: 8/10/2015
 Rig Release: 8/12/2015

Time: 8:45 PM
 Time: 5:56 AM
 Time: 12:00 PM

ELEVATIONS

K.B. Elevation: 1777.00ft Ground Elevation: 1770.00ft
 K.B. to Ground: 7.00ft

NOTES

BASED ON FAVORABLE RESULTS OF DST #2. THE DECISION WAS MADE TO SET 5 1/2" PRODUCTION CASING TO PRODUCE AND TEST FURTHER ZONES OF INTEREST.

RESPECTFULLY SUBMITTED BY:
 STEVE REED

WELL COMPARISON SHEET

FORMATION	SCUNIT 1-30								SE NESW NE 31-14-14				SW SE SW 30-14-14				SW SW SW 30-14-14				NE SW SE 30-14-14							
	LOGTOPS		SAMPLETOPS		LOGS		SAMPL.		COMP. CARD		LOG		SAMPL.		COMP. CARD		LOG		SAMPL.		COMP. CARD		LOG		SAMPL.			
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	LOG	SAMPL.	DEPTH	DATUM	LOG	SAMPL.	DEPTH	DATUM	LOG	SAMPL.	DEPTH	DATUM	LOG	SAMPL.	DEPTH	DATUM	LOG	SAMPL.	DEPTH	DATUM	LOG	SAMPL.
	KB	1777	GL	1770	KB	1788	KB	1758	KB	1790	KB	1775	KB	1775	KB	1775	KB	1775	KB	1775	KB	1775	KB	1775	KB	1775	KB	1775
ANHYDRITE TOP	789	988	785	992	811	977	- 11	- 15	755	1003	- 15	- 11	799	991	- 3	- 1	795	980	- 8	- 12	795	980	- 8	- 12	795	980	- 8	- 12
BASE	824	953	813	964	828	960	- 7	- 4					834	956	- 3	- 8	830	945	- 8	- 19	830	945	- 8	- 19	830	945	- 8	- 19
TOPEKA	2675	-898	2677	-900	2679	-891	- 7	- 9	2650	-892	- 6	- 8	2680	-890	- 8	- 10	2677	-902	- 1	- 2	2677	-902	- 1	- 2	2677	-902	- 1	- 2
HEEBNER SHALE	2897	-1120	2900	-1123	2901	-1113	- 7	- 10					2901	-1111	- 9	- 12	2900	-1125	- 5	- 2	2900	-1125	- 5	- 2	2900	-1125	- 5	- 2
TORONTO	2913	-1136	2918	-1141	2919	-1131	- 5	- 10					2920	-1130	- 6	- 11	2917	-1142	- 6	- 1	2917	-1142	- 6	- 1	2917	-1142	- 6	- 1
LKC	2954	-1177	2957	-1180	2960	-1172	- 5	- 8	2944	-1186	- 9	- 6	2960	-1170	- 7	- 10	2960	-1185	- 8	- 5	2960	-1185	- 8	- 5	2960	-1185	- 8	- 5
BKC	3188	-1411			3196	-1408	- 3																					
ARBUCKLE	3191	-1414	3193	-1416	3200	-1412	- 2	- 4	3168	-1410	- 4	- 6	3195	-1405	- 9	- 11	3203	-1428	- 14	- 12	3203	-1428	- 14	- 12	3203	-1428	- 14	- 12
RTD			3280	-1503	3276	-1488		- 15	3215	-1457		- 46	3280	-1490		- 13	3207	-1432			3207	-1432			3207	-1432		
LTD	3279	-1502											3282	-1492	- 10													

ROCK TYPES

Dolprim
 Lmst fw<7
 Lmst fw>7
 shale, gry
 shale, red
 Lmst fw<7
 shale, grn
 Carbon Sh
 Ss

ACCESSORIES

MINERAL
 ru Glauconite
 P Pyrite
 △ Chert White
 Mc Mica
 / Euhed rhombs of dol or

FOSSIL
 ○ Crinoids
 F Fossils < 20%
 φ Oolite
 O Oomoldic
 F Fossilinid

STRINGER
 ~ Chert
 ● Sandstone

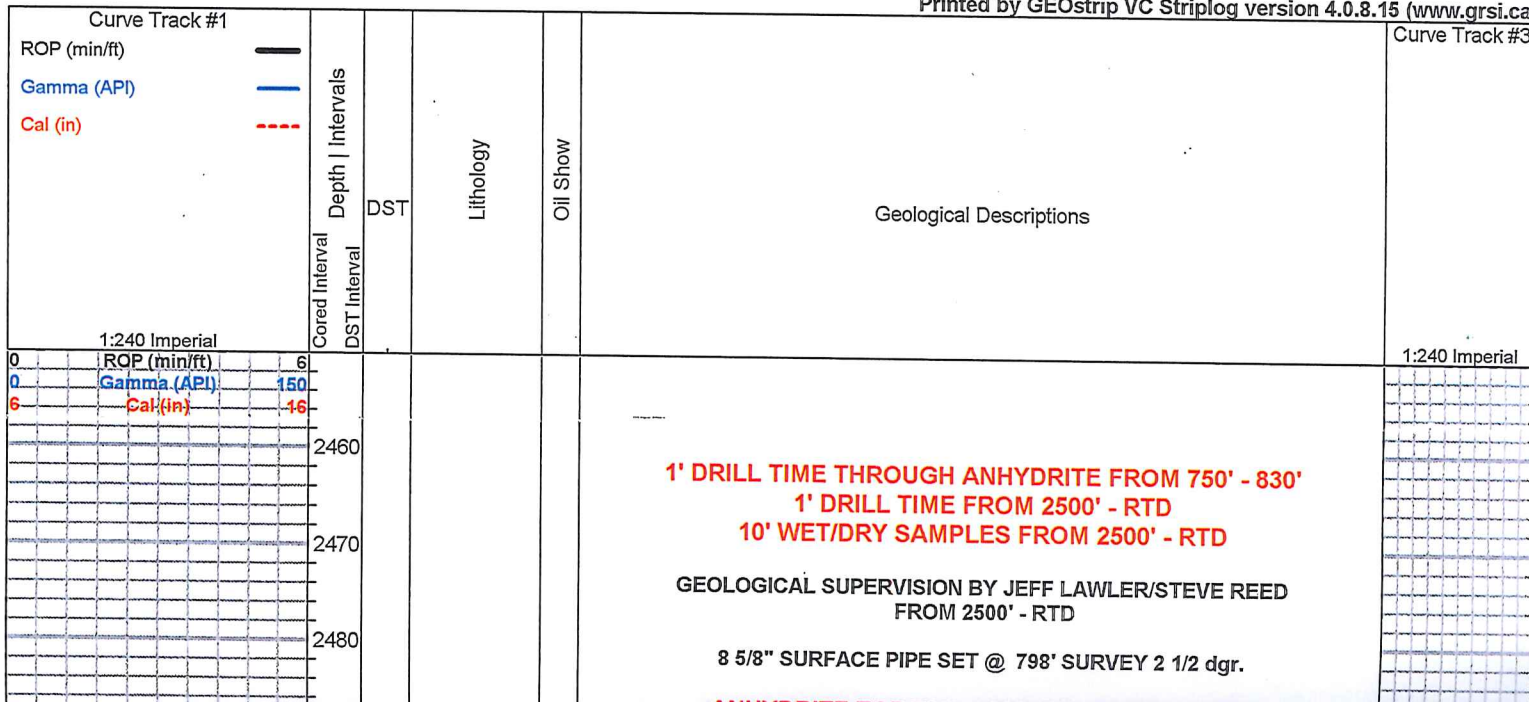
TEXTURE
 C Chalky
 e Earthy

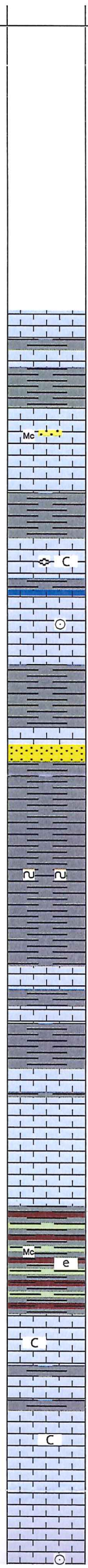
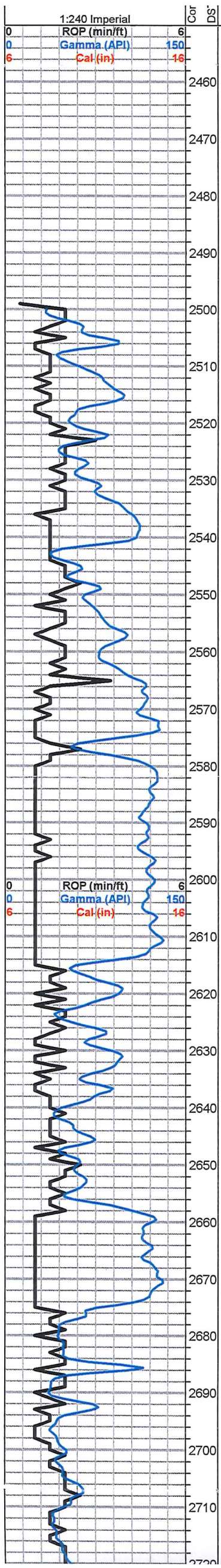
OTHER SYMBOLS

MISC
 Daily Report
 Digital Photo
 Document
 Folder
 Link
 Vertical Log File
 Horizontal Log File
 Core Log File
 Drill Cuttings Rpt

DST
 DST Int
 DST alt

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1' DRILL TIME THROUGH ANHYDRITE FROM 750' - 830'
1' DRILL TIME FROM 2500' - RTD
10' WET/DRY SAMPLES FROM 2500' - RTD

GEOLOGICAL SUPERVISION BY JEFF LAWLER/STEVE REED
FROM 2500' - RTD

8 5/8" SURFACE PIPE SET @ 798' SURVEY 2 1/2 dgr.

ANHYDRITE TOP 785' (+992) E-LOG 789' (+988)
ANHYDRITE BASE 813' (+964) E-LOG 824' (+953)

Sh- Lt & Drk Gray, silty & calcareous, abundant gummy argillaceous clumps & soft white chalk

Lm- Cream Tan, VFXLN, dense, well cemented, mix of high-energy Ls w/ fsl frag., poor to no vis. porosity, tight sl cherty Ls w/ min. vis. porosity, & tan gritty sl dolomitic Ls w/ consistent micro XLN porosity, all barren

Lm- A/A w/ interbedded gray shale benches & sl shaley fn grn Ss, sl unconsolidated, well sorted, micaceous, barren

Lm- Buff Cream, VF-FXLN, fsl, poorly dev. & chalky, loosely cemented, poor vis. porosity, mixed w/ some well cemented & tight, 2-3 PCS OF FROSTED/GRAY Ss, loosely cemented, sl shaley, WK SHEEN, LT STN, NSFO, NO ODR, WK HALO FLOR.

Lm- Cream Off White, FXLN, fsl w/ fusulinids, sl chalky in part, sctrd XLN porosity, clean & barren, interbedded calcareous gray shale lenses

Lm- Cream Tan, FXLN, fsl w/ crinoids, most loosely cemented & crumbly, some chalky in part, sctrd XLN & vry fn ppt porosity, barren

Lm- Tan Buff, VFXLN, dense, well cemented high-energy w/ fsl frag. poor vis. porosity, 2 PCS consolidated & mod. mature fn grn Ss, well sorted, friable, SCTD STN, TR FO, WK ODR,

Sh/Ss- Gray, dense & semi-waxy, arenaceous shale/shaley Ss

A/A- sl influx of cleaner more mature Ss, well sorted, spkld w/ glauconite, mod. Ca cementation, consistent intergranular porosity, barren

Sh- Lt Gray, silty & micaceous, some calcareous

Lm- Cream Tan, VF-FXLN, dense, well cemented high-energy fsl Ls w/ poor vis. porosity

Lm- Buff Brown, VF-FXLN, dense, well cemented, tight & trashy, poor vis. porosity,

Lm- Cream, VFXLN, fsl, tight w/ poor vis. porosity, some w/ sctrd XLN porosity

Lm- A/A

Sh- Gray Maroon Lm Green, silty & calcareous, some micaceous, some arenaceous, gritty & earthy, dense & crumbly

TOPEKA 2677' (-900) E-LOG 2675' (-898)

Lm- Cream Off White, VFXLN, dense, most well cemented lithographic Ls w/ vis. porosity, some chalky & crumbly and soft white chalk

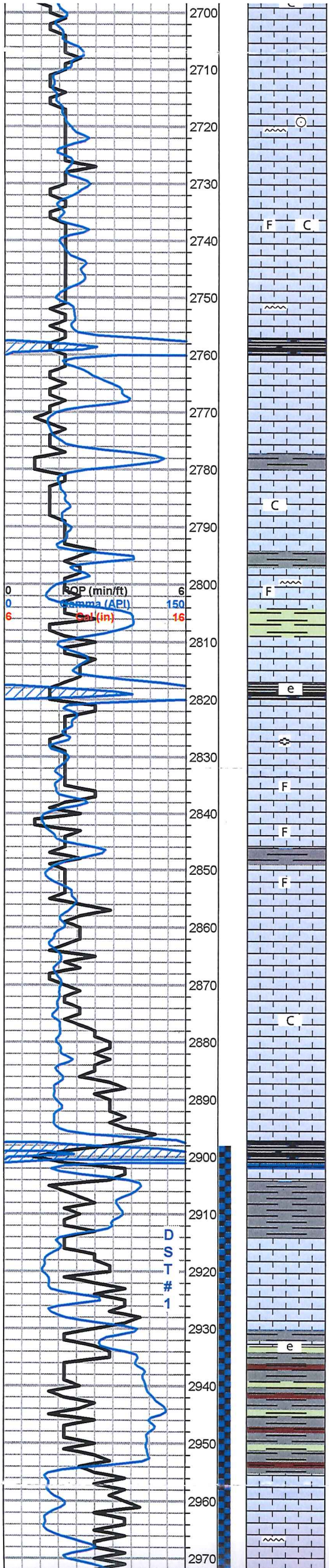
Lm- Cream Off White, FXLN, dense, well cemented, fsl w/ sctrd XLN porosity, some chalky in part, all vry clean

Lm- Cream Buff, VF-FXLN, fsl, poorly dev, few pcs of sl cherty Ls, all w/ sctrd XLN porosity, barren

Lm- Gray Cream, mix of loosely cemented & crumbly, sl chalk, fsl w/ sctrd to dense XLN porosity, several pcs of fresh bedded gray fsl cherty Ls w/ vis. porosity

1:240 Imperial

TARK.jpg



chalky in part, all vry clean

Lm- Cream Buff, VF-FXLN, fsl, poorly dev, few pcs of sl cherty Ls, all w/ sctrd XLN porosity, barren

Lm- Gray Cream, mix of loosely cemented & crumbly, sl chalk, fsl w/ sctrd to dense XLN porosity, several pcs of fresh bedded gray fsl chert/cherty Ls w/o vis. porosity

Lm- Cream Off White, FXLN, fsl, poorly dev. w/ sctrd XLN porosity, semi-grainy

Lm- Cream Off White, FXLN, high-energy mix w/ fsl fragments, poor vis. porosity, some loosely cemented, chalky, & crumbly

Lm- Cream Off White, A/A, chalky & sl unconsolidated, few pcs of gray fresh bedded cherty Ls w/o vis. porosity

Sh- Black Maroon, fissile & carbonaceous, gritty & earthy

Lm- Cream Off White, FXLN Fn Grn, chalky loosely cemented mix of XLN & mud supported matrix, all mottled w/ poor vis. porosity, sctrd XLN porosity, FEW PCS W/ WK TR STN, NSFO, NO ODR

Lm- Cream Off White, VF-FXLN, dense, most well cemented, some chalky mud supported matrix, sctrd to dense XLN porosity, vry clean & barren

Lm- Cream Buff, FXLN, dense, well cemented, sl fsl, poorly dev. w/ sctrd XLN porosity, barren, few pcs of blk fsl fresh bedded chert

Sh- Gray Lm Green, silty & calcareous, dense & semi-waxy

Sh- Black Gray Maroon, fissile & carbonaceous, silty & soft, gritty & earthy

Lm- Cream Tan, FXLN, fsl, dense XLN porosity, semi-crumbly, barren, sctrd fn-med reXLN, barren, several loose fusulinids

Lm- Cream Tan, VFXLN, dense, well cemented, tight w/ min. vis. porosity, slick cherty like Ls, fsl

Lm- Gray Buff, VF-FXLN, dense, well cemented, poorly dev. w/ sctrd XLN porosity, fsl, barren

Lm- Cream Off White, FXLN, fsl, loosely cemented, dense reXLN & XLN porosity, SCTRD DRK STN, NSFO, WK ODR

Lm- Cream Off White, A/A sl better development w/ sctrd fn ppt porosity, SCTRD DRK STN, SL TR FO, WK-MOD ODR.

Lm- Cream Off White, FXLN, fsl, poorly dev. & mostly tight w/ sctrd XLN porosity, barren, some soft white chalk

Lm- A/A

HEEBNER 2900' (-1123) E-LOG 2897' (-1120)

Sh- Black Gray, fissile & carbonaceous, silty & soft

Sh- Gray, silty & soft, some calcareous

TORONTO 2918' (-1141) E-LOG 2913' (-1136)

Lm- Cream Off White, VF-FXLN, dense, loosely cemented, some crumbly & mottled, sctrd to dense reXLN, XLN porosity, LT FLAKEY STN, NSFO, WK ODR

Sh- Gray Maroon Lm Green, gummy argillaceous clumps, gritty & earthy, soft & calcareous

Sh- A/A w/ arenaceous shale

LKC 2957' (-1180) E-LOG 2954' (-1177)

Lm- Cream Tan, FXLN, mod. dev. w/ sctrd reXLN, XLN to sctrd ppt porosity, SUB-SAT LT STN, NSFO, WK ODR

Lm- Cream Tan, VF-FXLN, dense, well cemented, poorly dev. & mostly tight, some sl cherty Ls, barren

PLATTS...

SHORT TRIP STRAP -2.93' SURVEY 1 dgr.

DST #1
TOR - LKC D
15-30-60-90
451' TOTAL FLUID
2434' GIP
126' SOMCG
(10%O,30%M,60%G)
252' VSOCM
(2%O, 98%M)
73' M w/ OIL
SPOTS
GAS: 22.84-
37.12MCF
GAUGED EVERY
10 min.

IFP: 91-102#
FFP: 112-197#
SIP: 530-534#

A.jpg

LKC 2957' (-1180) E-LOG 2954' (-1177) Lm- Cream Tan, FXLN, mod. dev. w/ sctrd reXLN, XLN to sctrd ppt porosity, SUB-SAT LT STN, NSFO, WK ODR

A.jpg

Lm- Cream Tan, VF-FXLN, dense, well cemented, poorly dev. & mostly tight, some sl cherty Ls, barren

Sh- Maroon Gray, gummy argillaceous clumps & arenaceous shale

F ○ Lm- Cream Off White, VF-FXLN, fsl & sl oolitic, sctrd dev. & reXLN w/in porosity, sctrd XLN & fn ppt interoolite porosity, SCTRD LT STN, NSFO, MOD ODR

C.jpg

Sh- Gray, dense & waxy, soft & silty

○ Lm- Off White, VF-FXLN, dense, well cemented, sl oolitic, sctrd dev. w/ micro XLN to rare fn ppt porosity, sctrd reXLN w/in porosity, LT SCTRD STN, FLAKEY, NSFO, NO ODR

D.jpg

C Lm- Cream Off White, VF-FXLN, dense, well cemented, chalky in part, poorly dev. w/ sctrd XLN porosity, vry clean & barren

DST #2
LKC D-G
15-30-60-90

P ○ Lm- Tan-Cream, FXLN, dense, hard, clean & barren, pyrite clusters, fusulinids

1134' TOTAL FLUID
1827' GIP
63' SOGCM (10%O, 40%G, 50% M)
63' GOCM (20%G, 30%O, 50% M)
1008' GO (40%G, 60%O)

○ Lm- Tan, oolitic w/ dark fossil clasts, FN XLN porosity, sctrd vugs, well cemented, LT SCTRD STN, NSFO, FNT ODR, good streaming wet cut, slightly chalky

○ Lm- Cream, oolitic w/ fn Interoolite porosity, moderate hardness, SCTRD LT BRN STN, FNT ODR, NSFO, light streaming wet cut

F ○ Lm- Off White-Cream, fossiliferous w/ fn inter XLN porosity, moderate hardness, SCTRD LT GLDN BRN STAIN, SL ODR, NSFO

IFP: 128-151#
FFP: 186-376#
SIP: 585-570#

○ Lm- Bright White-Cream, oomoldic, moderate hardness, SCTRD LT BRN STN, light streaming wet cut, NSFO, chalky

○ Lm- Bright White, oolitic, dense, poorly developed, mostly clean & barren, no odor, bedded chalk in part

Note:
Samples very trashy

○ Lm- Tan-Cream, VFXLN, scattered oolites, dense, very hard, no shows, slightly chalky

Lm- A/A w/ dark brn chert

F P Lm- Cream, slightly fossiliferous, dense, hard, pyrite, slight chalk, no shows
Sh- Black, carbonaceous, fissile, firm

△ F Lm- Lt brn-gray, FXLN, dense, very hard, some fossiliferous poor devo., opaque tan chert

Sh- Dark Gray-Black, fissile, waxy

F ○ Lm- Cream, fossiliferous w/ fn ppt & inter XLN porosity, SCTRD LT GLDN BRN STN, SI ODR, good streaming wet cut, NSFO

Sh- Maroon, soft, blocky, some sticky

○ Lm- Cream, oolitic/ oomoldic with fn inter oolitic porosity, scattered vugs, LT BRN SCTRD STN, SL ODR,

○ Lm- Cream-Light Brown, oolitic, very well reXLN cement, dense, hard, SCTRD LT BRN STN, FNT ODR, NSFO

Sh- Maroon-Gray, soft, blocky
Sh- Black Carbonaceous, fissile, soft

C ○ Lm- Tan-Light Brn, VF-XLN, dense, very hard, clean & barren, slight chalk in part, couple chips w/ SCTRD STN, FNT ODR, NSFO

Sh- Black, carbonaceous, fissile, soft

P Lm- Light Brown, FN-XLN, dense, hard, no shows, pyrite

BKC E-LOG 3188' (-1411') Sh- lime green, soft, blocky

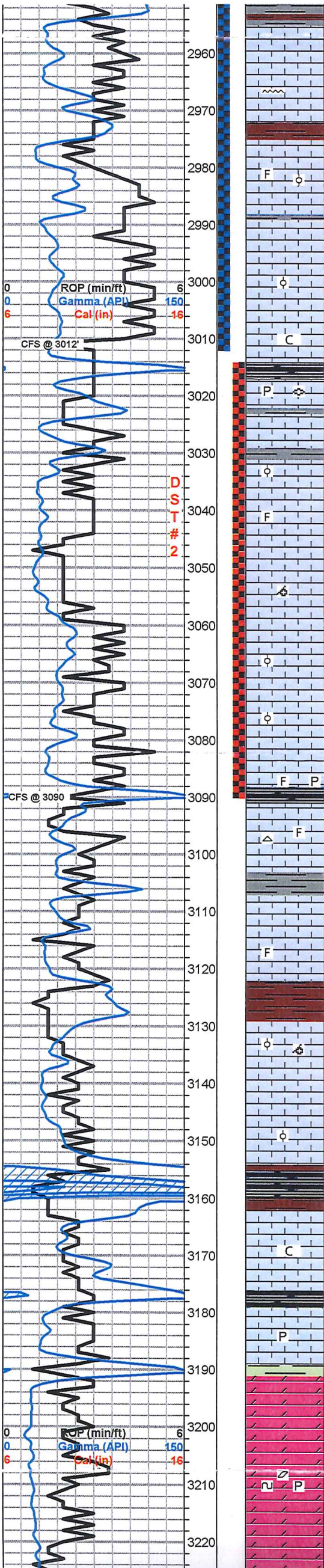
○ **ARBUCKLE 3193' (-1416) E-LOG 3191' (-1414')** Dolo- Buff, MED-XLN, w/ fn interxln porosity, SCTRD STN, LT GASSY SHEEN, STRNG ODR, Good Streaming wet cut, NSFO

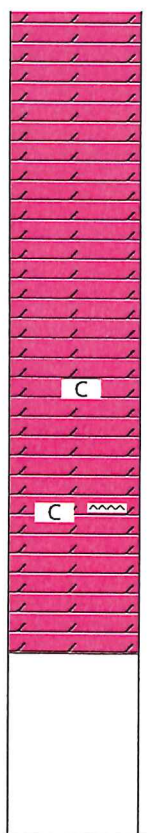
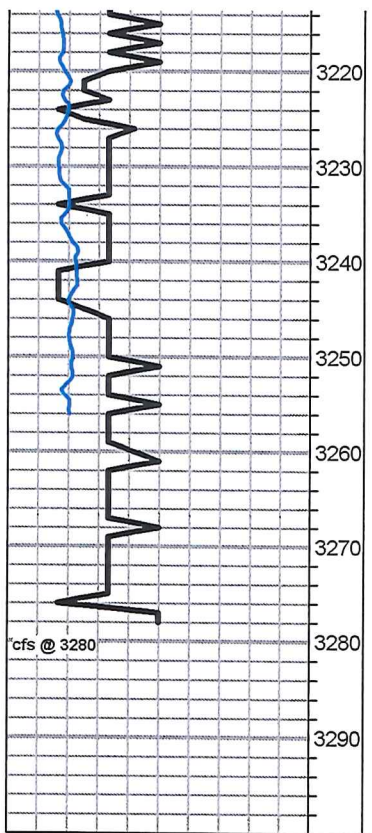
○ Dolo- Buff-Off White, FN-MED XLN, SCTRD STN, well cemented, GD ODR, NSFO

○ Dolo- Buff-Tan, MED-XLN, well developed rhombic xtāis, well cemented, GASSY SHEEN, SAT STN, STRNG ODR, rare SFO upon crush, pyrite, glauconite

○ Dolo- Off White, FN-MED XLN, STRNG ODR, SCTRD STN, rare SFO upon crush

Dolo- Cream-Tan, FN XLN, FNT ODR, SCTRD STN, NSFO, clear opaque grain





○ Dolo- Off White, FN-MED XLN, STRNG ODR, SCTRDR STN, rare SFO upon crush

Dolo- Cream-Tan, FN XLN, FNT ODR, SCTRDR STN, NSFO, clear opaque grain inclusions

Dolo- Bright White, FN XLN, moderately cemented, clean & barren

Dolo- Off White, FN XLN, loosely cemented, chalky, no Shows

Dolo- White-Cream, FN XLN, brittle, chalky in part, clean & barren

Dolo- Cream, FN XLN, well cemented, brittle, chalky, cherty, no shows

Dolo- Bright White, FN XLN, well cemented, hard, clean & barren, large free clear opaque grains in tray.

RTD 3280' (-1503) E-LOG 3279' (-1502) @ 05:56 8/10/2015

**SURVEY @ TD
1/4 DEGREE**