

Scale 1:240 Imperial

Well Name: SCHOENBERGER A #2  
Surface Location: N2 NE NE SE Sec. 29 - 14S - 14W  
Bottom Location:  
API: 15-167-24071  
License Number: 33813  
Spud Date: 12/1/2017 Time: 7:00 PM  
Region: RUSSELL COUNTY  
Drilling Completed: 12/6/2017 Time: 4:26 PM  
Surface Coordinates: 2645' FNL & 330' FEL  
Bottom Hole Coordinates:  
Ground Elevation: 1810.00ft  
K.B. Elevation: 1815.00ft  
Logged Interval: 2250.00ft To: 3320.00ft  
Total Depth: 3320.00ft  
Formation: LANSING - KANSAS CITY; ARBUCKLE  
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

**OPERATOR**

Company: JASON OIL COMPANY, LLC  
Address: 3718 183rd ST  
P.O. BOX 701  
RUSSELL, KS  
Contact Geologist: JIM SCHOENBERGER  
Contact Phone Nbr: (785) 483-4204  
Well Name: SCHOENBERGER A #2  
Location: N2 NE NE SE Sec. 29 - 14S - 14W  
API: 15-167-24071  
Pool: State: KANSAS Field: GORHAM  
Country: USA

**SURFACE CO-ORDINATES**

Well Type: Vertical  
Longitude: -98.8927674  
Latitude: 38.8054844  
N/S Co-ord: 2645' FNL  
E/W Co-ord: 330' FEL

**LOGGED BY**



Company: BIG CREEK CONSULTING, INC.  
Address: 1909 MAPLE  
ELLIS, KS 67637  
Phone Nbr: (785) 259-3737  
Logged By: GEOLOGIST Name: JEFF LAWLER

**CONTRACTOR**

Contractor: WW DRILLING  
Rig #: 8  
Rig Type: MUD ROTARY  
Spud Date: 12/1/2017 Time: 7:00 PM  
TD Date: 12/6/2017 Time: 4:26 PM  
Rig Release: 12/7/2017 Time: 8:00 AM

### ELEVATIONS

K.B. Elevation: 1815.00ft  
K.B. to Ground: 5.00ft

Ground Elevation: 1810.00ft

### NOTES

### WELL COMPARISON SHEET

FORMATION	P&A 7-90										DISPOSAL WELL									
	DRISCOLL LEASE OPERATIONS					D-H & LOIL OPERATIONS					WESTGATE-GREENLAND OIL CO			JASON OIL CO, LLLC						
	BERENS #1					RUSCH #6					RUSCH #2			FLEGLER #5						
	SCHOENBERGER A #2					SE NE NE 29-14-14					W2 SE NE 29-14-14			SW SW NW 28-14-14						
KB 1815		GL 1810		KB 1811		KB 1813		KB 1811		KB 1803		KB 1811		KB 1803						
LOG TOPS		SAMPLE TOPS		LOGS		CORR.		SMPL.		COMP. CARD		LOG		SMPL.						
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	SMPL.					
ANHYDRITE TOP	803	1012	805	1010	810	1001	+ 11	+ 9				800	1011	+ 1	- 1	780	1023	- 11	- 13	
BASE	838	977	838	977																
TARKIO	2487	-672	2460	-645												2465	-662	- 10	+ 17	
TOPEKA	2692	-877	2687	-872	2690	-879	+ 2	+ 7	2677	-864	- 13	- 8				2668	-865	- 12	- 7	
HEEBNER	2918	-1103	2915	-1100	2917	-1106	+ 3	+ 6	2909	-1096	- 7	- 4				2897	-1094	- 9	- 6	
TORONTO	2936	-1121	2933	-1118	2934	-1123	+ 2	+ 5	2926	-1113	- 8	- 5				2914	-1111	- 10	- 7	
LKC	2979	-1164	2974	-1159	2976	-1165	+ 1	+ 6	2966	-1153	- 11	- 6	2960	-1149	- 15	- 10	2955	-1152	- 12	- 7
BKC	3225	-1410	3221	-1406	3210	-1399	- 11	- 7								3194	-1391	- 19	- 15	
ARBuckle	3241	-1426			3229	-1418	- 8						3230	-1419	- 7		3208	-1405	- 21	
REAGAN									3224	-1411			3342	-1531			3227	-1424		
LTD	3324	-1509	3320	-1505	3270	-1459	- 50	- 46	3227	-1414	- 95	- 91	3357	-1546	+ 37	+ 41	3280	-1477	- 32	- 28

### DST #1 SAND 3210' - 3254'



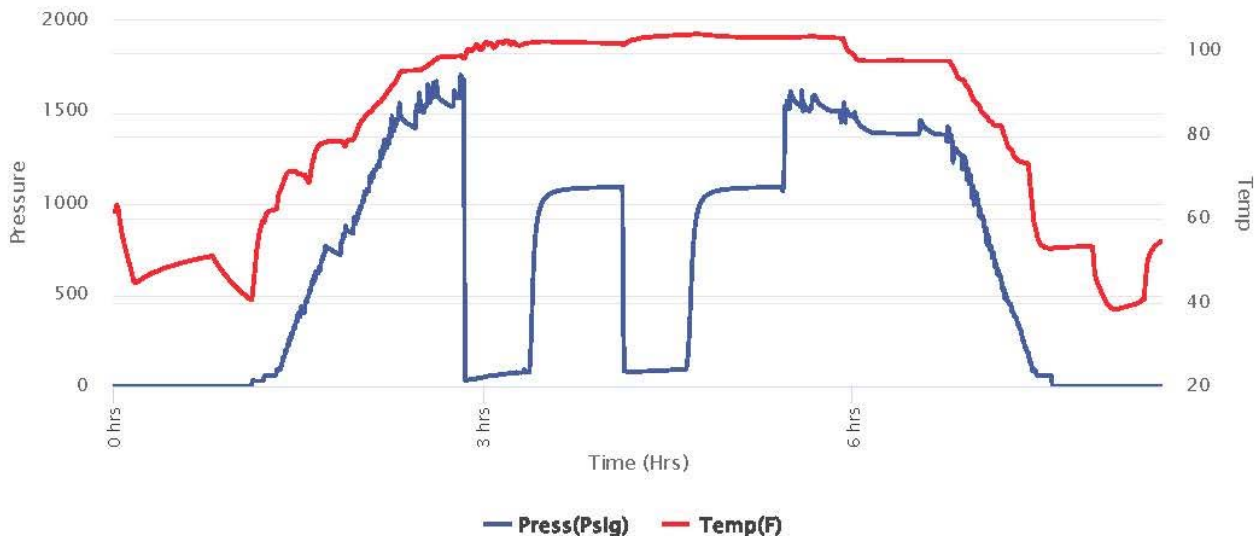
Company: Jason Oil Company ,  
LLC  
Lease: Schoenberger A #2

SEC: 29 TWN: 14S RNG: 14W  
County: RUSSELL  
State: Kansas  
Drilling Contractor: WW Drilling, LLC -  
Rig 8  
Elevation: 1812 EGL  
Field Name: Gorham  
Pool: Infield  
Job Number: 94

DATE  
December  
07  
2017

DST #1 Formation: Sand Test Interval: 3210 - 3254' Total Depth: 3324'  
Time On: 04:40 12/07 Time Off: 12:56 12/07  
Time On Bottom: 07:25 12/07 Time Off Bottom: 09:55 12/07

Electronic Volume Estimate: 158'  
1st Open Minutes: 30 4.7" at 30 min  
1st Close Minutes: 45 0" at 45 min  
2nd Open Minutes: 30 5.3" at 30 min  
2nd Close Minutes: 45 0" at 45 min



**DST #1 SAND 3210' - 3254'**



Company: Jason Oil Company ,  
 LLC  
 Lease: Schoenberger A #2

SEC: 29 TWN: 14S RNG: 14W  
 County: RUSSELL  
 State: Kansas  
 Drilling Contractor: WW Drilling, LLC -  
 Rig 8  
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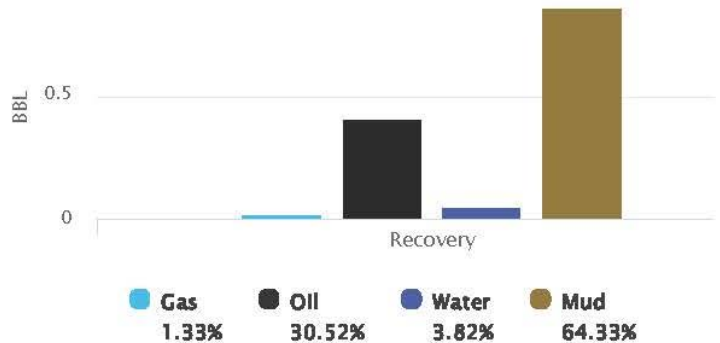
DST #1      Formation: Sand      Test Interval: 3210 - 3254'  
 Total Depth: 3324'  
 Time On: 04:40 12/07      Time Off: 12:56 12/07  
 Time On Bottom: 07:25 12/07      Time Off Bottom: 09:55 12/07

<u>Recovered</u>		<u>Description of Fluid</u>	<u>Gas %</u>	<u>Oil %</u>	<u>Water %</u>	<u>Mud %</u>
<u>Foot</u>	<u>BBLs</u>					
50	0.7115	SLWCHMCO	0	52	3	45
60	0.3244334	SLOCM	0	3	0	97
60	0.2952	SLGCSLOCSLWCM	6	9	10	75

Total Recovered: 170 ft  
 Total Barrels Recovered: 1.3311334

Reversed Out  
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1532	PSI
Initial Flow	33 to 78	PSI
Initial Closed in Pressure	1089	PSI
Final Flow Pressure	79 to 92	PSI
Final Closed in Pressure	1089	PSI
Final Hydrostatic Pressure	1527	PSI
Temperature	105	°F

Pressure Change Initial Close / Final Close      0.0      %

**DST #1 SAND 3210' - 3254' BOTTOM PACKER CHART**



Company: Jason Oil Company ,  
 LLC  
 Lease: Schoenberger A #2

SEC: 29 TWN: 14S RNG: 14W  
 County: RUSSELL  
 State: Kansas  
 Drilling Contractor: WW Drilling, LLC -  
 Rig 8  
 Elevation: 1812 EGL  
 Field Name: Gorham  
 Pool: Infield  
 Job Number: 94

DATE December 07 2017
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DST #1	Formation: Sand	Test Interval: 3210 - 3254'	Total Depth: 3324'
	Time On: 04:40 12/07	Time Off: 12:56 12/07	
	Time On Bottom: 07:25 12/07	Time Off Bottom: 09:55 12/07	

REMARKS:

Initial Flow: 4 1/2 in. blow.  
 Initial Shut-in: No blow back.  
 Final Flow: 5 in. blow.  
 Final Shut-in: No blow back.

Tool Sample: 9% gas, 14% oil, 8% water, 69% mud

Ph: 7.5

RW: .44 @ 66 degrees F

Chlorides: 18,000 ppm

Below Straddle Recorder



Time (Hrs)

— Press(Psig) — Temp(F)

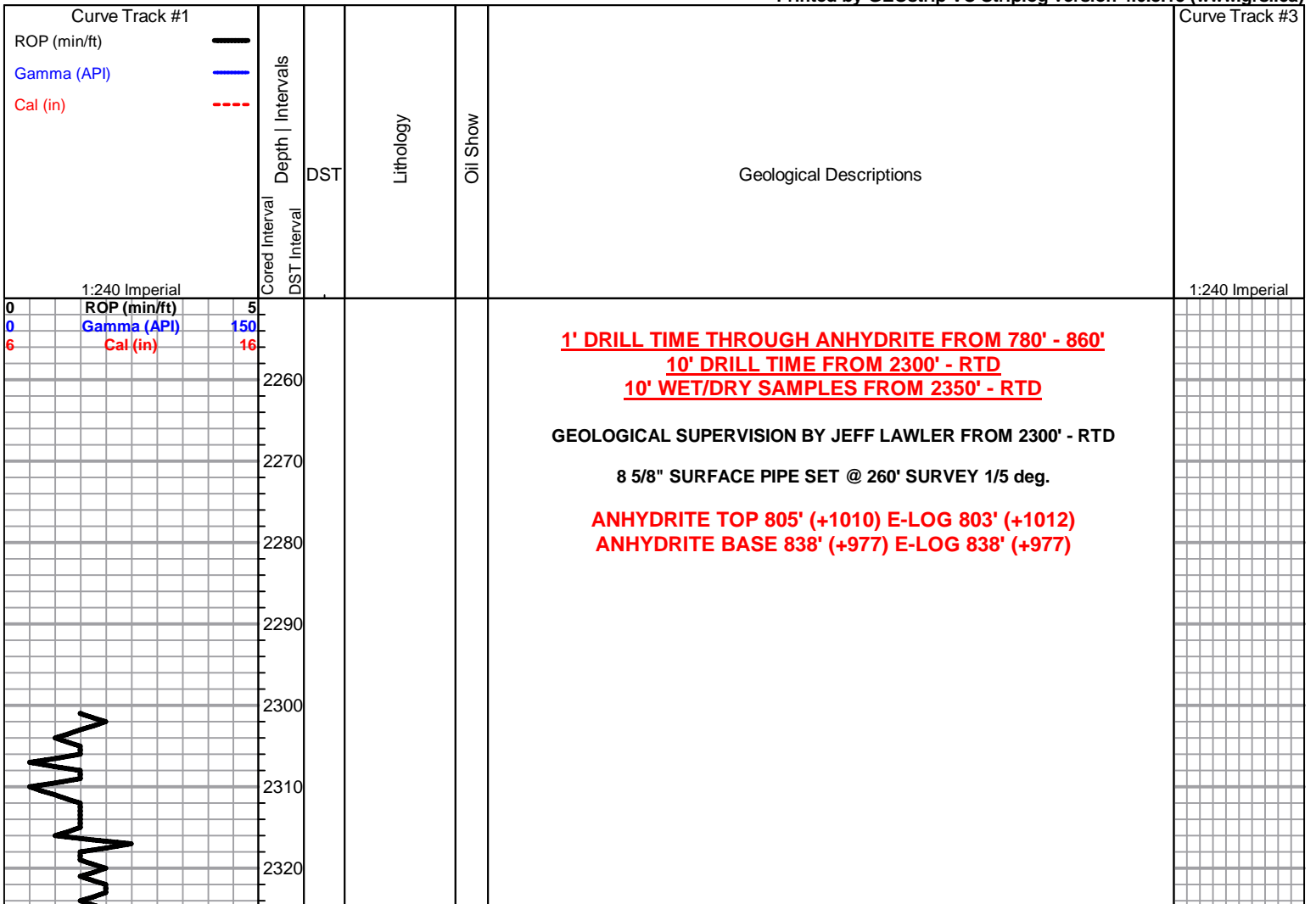
**ROCK TYPES**

-  Dolprim
-  shale, grn
-  Carbon Sh
-  shale, red
-  Ss
-  Lmst fw7>
-  shale, gry
-  Shblk
-  Shcol

**OTHER SYMBOLS**

- DST**
-  DST Int
  -  DST alt

Printed by GEOstrip VC Striplog version 4.0.8.15 ([www.grsi.ca](http://www.grsi.ca))



2330  
2340  
2350  
2360  
2370  
2380  
2390  
2400  
2410  
2420  
2430  
2440  
2450  
2460  
2470  
2480  
2490  
2500  
2510  
2520  
2530  
2540

Sh- Gray Maroon, gummy argillaceous clumps

Lm- Gray Cream, FXLN, dense, well cemented, fsl, sctrd XLN porosity, barren

Sh- Maroon Green Gray, abundant argillaceous clumps

Lm- Cream Off White, FXLN, fsl, chalky in part, fsl, well cemented, sctrd XLN porosity, barren

**DOVER 2387' (-572) E-LOG 2392' (-577)**

Ss- Frosted, Fn Grn, consolidated & well sorted, sub-rounded, loosely cemented, semi-friable, lt green speckling, LT STN, WK YLW FLOR, NSFO, NO ODR

Sh- A/A, black fissile organic rich, sl arenaceous

Sh- Black, sl sandy, organic rich, calcareous

Ss- Frosted, Fn Grn, consolidated & well sorted, sub-rounded, loosley cemented, semi-friable, well developed, lt green speckling, DRK STN, YLW FLOR, NSFO, NO ODR

Ss- Black, Vf Grn, loosely cemented, mod. conslidated, sorted, heavily micaceous, some organics, shaley/calcareous, NO STN, WK SHEEN WK HALO FLOR, NSFO, NO ODR

Sh- Black, organic rich, micaceous

**TARKIO LIME 2460' (-645) E-LOG 2487' (-672)**

Lm- Cream, VFXLN, dense, well cemented & tight w/ min. vis. porosity, barren

Sh- Gray Lime Green, gummy argillaceous clumps

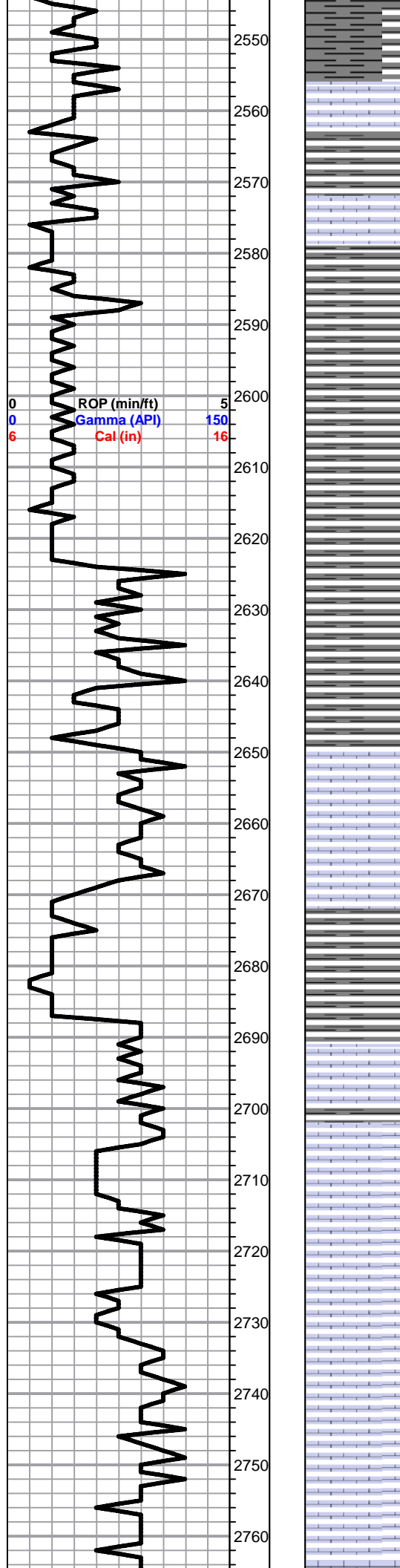
Lm- Buff Tan Black, FXLN, trashy fsl high-energy mix w/ sctrd XLN to no vis. porosity, barren

Sh- abundant green argillaceous clumps

Lm- Cream Buff, FXLN, fsl & heavily mottled, sctrd XLN porosity, barren

ROP (min/ft)  
Gamma (API) 150  
Cal (in) 16

CFS @ 2470'



2550 Sh- abundant argillaceous gray clumps

2560 Lm- Tan, VF-FXLN, dense, well cemented, sl fsl, sctrd micro XLN porosity, barren  
 Sh- Gray White, gummy argillaceous clumps

2570

2580 Lm- Cream, Vf grn, dense, well cemented, sl arenaceous w/ vry fn rounded grain inclusions, poor vis. porosity, barren  
 Sh- Gray, abundant gummy clumps

2590 Sh- A/A

2600

2610 Sh- abundant argillaceous gray clumps

2620

2630 Sh- A/A w/ some sandy shale, & dense gray slivers

2640

2650 Lm- Cream Tan Buff, FXLN, dense, well cemented, fsl w/ crinoids, sctrd XLN porosity, barren

2660 Lm- Tan Gray, FXLN, fsl trashy high-energy mix, sctrd XLN porosity

2670 Sh- Gray Maroon White, calcareous & chalky, gritty & earthy, gummy white chalk

2680

2690 **TOPEKA 2687' (-872) E-LOG 2692' (-877)** Lm- Tan Brown, FXLN, fsl high-energy mix, some densely packed w/ fsl & fsl fragments, sctrd XLN porosity, barren

2700 Lm- Cream, VFXLN, Vf Grn, dense tight mix, some mud supported matrix, all w/ poor vis. porosity, vry clean & barren  
 Sh- Gray, calcareous & gummy clumps

2710

2720 Lm- A/A w/ few pcs of golden brown fsl fresh bedded chert/cherty Ls

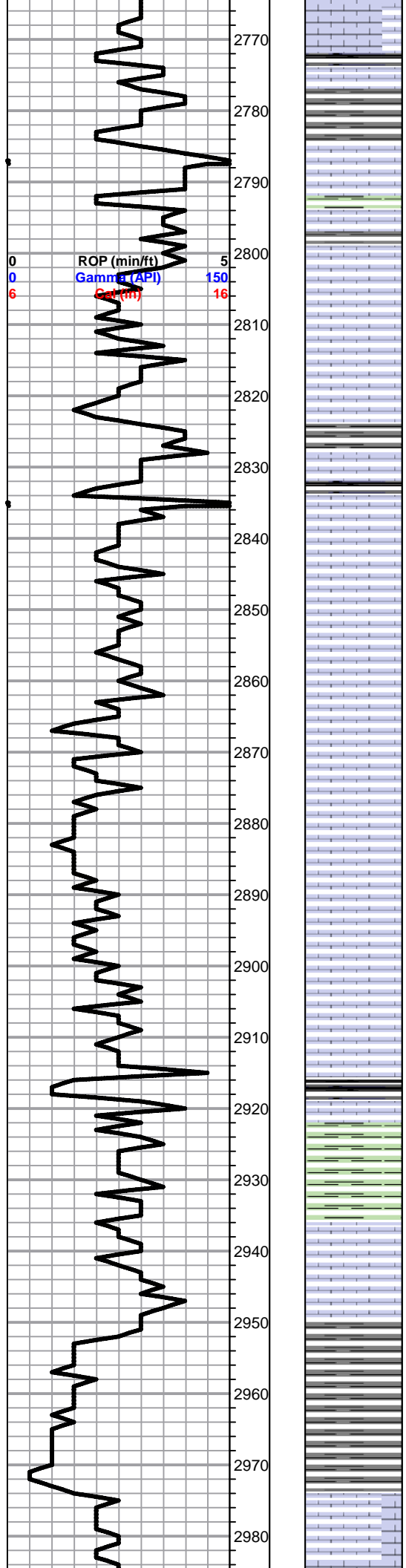
2730 Lm- Cream Off White, FXLN, well cemented, sl sandy & granular, sctrd XLN porosity, barren, a few sl chalky in part

2740 Lm- Tan, FXLN, fsl, some fsl fragments, dense XLN porosity

2750 Lm- Cream Off White, FXLN, dnse, well cmented, dense XLN porosity, some chalky in part, heavily mottled

2760





Sh- Black, fissile & carbonaceous

Lm- Cream, VFXLN, dnse, tight, min. vis. porosity, some sl chalky in part, vry clean & barren

Lm- Cream Gray, FXLN, dnse, well cemented, mostly tight w/ sctrd XLN porosity

Lm- A/A, heavily mottled

Sh- Black Gray Green, fissile & carbonaceous, silty & calcareous, gummy clumps

Lm- Cream Buff, FXLN, trashy fsl high-energy mix, sctrd XLN porosity, some chalky in part, barren

Lm- Cream, FXLN, mod. dev. oolitic w/ sctrd fn ppt interoolite & XLN porosity, SCTRD DRK STN, TR FO, NO ODR

Lm- Cream Off White, FXLN, sl fsl, poorly dev. sctrd XLN porosity, chalky in part, loosely cemented, barren

Lm- A/A w/ dark fresh bedded chert w/o vis. porosity

Lm- A/A w/ much soft white chalk

Lm- Tan Buff, VFXLN, dense, vry well cemented, tight w/ no vis. porosity, barren

**HEEBNER 2915' (-1100) E-LOG 2918' (-1103)** Sh- Black, fissile & carbonaceous

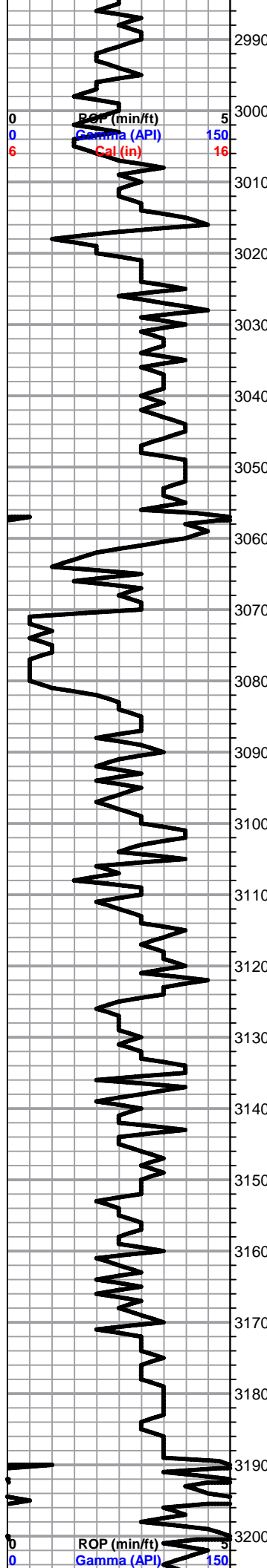
Sh- Green Gray, gummy argillaceous clumps

**TORONTO 2933' (-1118) E-LOG 2936' (-1121)** Lm- Off White, FXLN, sl fsl, chalky, loosely cemented, 2 PCS W/ LT RESIDUAL STN, NSFO, NO ODR, much soft white chalk, several pcs of fresh bedded chert/cherty Ls

Sh- Gray Maroon, gummy argillaceous clumps

**LKC 2974' (-1159) E-LOG 2979' (-1164)** Lm- Cream Off White, FXLN, fsl, mod. dev. w/ sctrd inter fsl XLN porosity, some sctrd reXLN porosity, LT STN, NSFO, WK TR ODR





Sh- Gray, gummy argillaceous clumps

Lm- Cream Off White, FXLN, fsl & sl oolitic, sctrd dev. w/ XLN & inter fsl porosity, LT TR STN, NSFO, WK TR ODR

Lm- Cream Off White, FXLN, fsl & oomoldic, sctrd fr vuggy porosity, no intervugular connectivity, LT SCTRD STN, TR GSY FO, WK ODR, several pcs of oolitic Ls & cherty Ls w/ min. vis - no vis. porosity

Lm- Cream Off White, VF-FXLN, dense, well cemented & tight w/ sctrd XLN porosity, much soft white chalk, barren

Lm- A/A w/ VFXLN cherty Ls w/ no vis. porosity, barren

Lm- Brown, VFXLN, dense, well cemented, oolitic, cherty like Ls, sctrd micro XLN porosity, barren

Lm- Off White, FXLN, fsl, dense XLN porosity, barren

Lm- Cream, FXLN, well dev. oomoldic w/ consistant vugs, poor interconnectivity, DRK SCTRD STN, GSY FO, FR ODR

Lm- Cream Off White, VF-FXLN, dense, well cemented & tight w/ poor vis. porosity, vry clean & barren, some soft white chalk

Lm- A/A w/ black fresh bedded chert, cryptoXLN w/o vis. porosity

Sh- Black Gray, fissile & carbonaceous, dense slivers

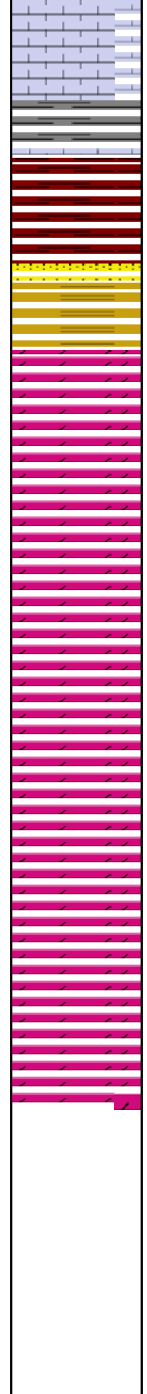
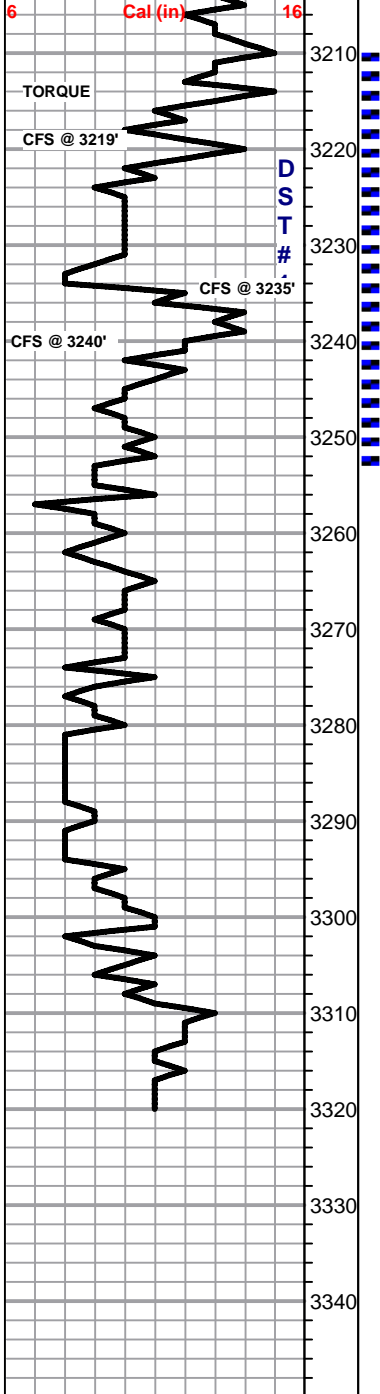
Lm- Cream Off White, VF-FXLN, dense, well cemented & mostly tight w/ poor vis. porosity, vry clean & barren

Lm- Cream Tan, VF-FXLN, dense, well cemented, mix of tight Ls & gritty sl dolomitic Ls, all w/ poor vis. porosity, vry clean & barren

Lm- Cream Buff, VFXLN, dense, tight & poorly dev. sl fsl, poor vis. porosity, several pcs of milky white cherty Ls w/o vis. porosity

Lm- Cream Off White, VF-FXLN, sl fsl, dense, well cemented & tight w/ sctrd micro XLN porosity, barren

Lm- Cream Off White, VFLX, dense, well cemented, tight w/ dense micro XLN porosity, barren, some soft white chalk



Lm/Chert- Tan Cream Golden Brown, cryptoXLN chert/cherty Ls w/o vis. porosity

Sh- Gray Maroon White Green, gummy argillaceous clumps, gritty & earthy

**BKC 3221' (-1406) E-LOG 3225' (-1410)**

**3235' 20"**- Sand- Clear, abundant Vf ind. grains stuck in gummy white clumps, rounded & mature, consolidated, several Crs Grn ind. grains loose in tray, angular & immature, no vis. clusters, NO OIL SHEEN ON WET CUP, TR SULPHURIC ODR

**40"**- A/A, extremely friable, 1 FN GRN CLUSTER, DRK SAT STN, NSFO, ODR A/A, INSTANT YLW FLOR UPON CRUSH

**60"**- A/A

**ARBUCKLE 3241' (-1426)**

**3240' 40"**- Dolomite- Bone White F-MED XLN, well cemented, dense micro XLN porosity, sctrd round mature fn grn qtz. inclusions, SCTRDRK STN, FR GSY FO, SL PUNGANT SULPHURIC ODR, coarse qtz. grains A/A, NO VIS STN OR FLOR.

Dolomite/Sand- mix of Med XLN dolomite w/ med-crs qtz inclusions, clear/frosted med-crs grn sand clusters, sub-rounded, semi-mature, & med grn sandy dolomite, ALL W/ VARYING DEGREE OF OIL STN/SHW, FR FRO, GD ODR

**3250'**- Dolomite- White, VF-FXLN, dense, vry well cemented cherty dolomite w/ poor vis. porosity, barren

**3260'**- Dolomite- Cream Pink, FXLN, well cemented, well dev. w/ consistent interXLN porosity, barren, some waxy green shale

**3265'**- Dolomite- Cream White, VF-FXLN, dense, well cemented, mostly tight w/ micro XLN porosity, rounded mature fn-med qtz inclusions, barren

**3270'**- Sand- Clear, Crs Grn, rounded & mature, light dolomitic cementation, clusters, friable, BARREN TO DRK STN, FRO UPON CRUSH, WK ODR, much soft white chalk

Dolomite- White, Fn-Med Grn, loosely to well cemented sandy dolomite, vry friable, clean & barren

Dolomite- Cream Off White, F-MED XLN, dense, well cemented, tight w/ micro XLN porosity, barren

Dolomite- Cream Lt Buff, VF-FXLN, dense, well cemented mostly tight w/ micro XLN porosity, barren

**RTD 3320' (-1505) LTD 3324' (-1509) @ 16:26 12/6/2017**

DST #1  
SAND  
(STRADDLE)  
3210' - 3254'  
30-45-30-45

170' TOTAL FLUID  
50' SLWCHMCO  
(52%O, 3%W, 45%  
M)  
60' SLOCM  
(3%O, 97%M)  
60' SLG,O, & WCM  
(6%G, 9%O,  
10%W, 75%M)

IFP: 33-78#  
FFP: 79-92#  
SIP: 1089-1089#  
HYD:1532-11527#  
BHT: 105 deg.

SHORT TRIP  
SURVEY 1 1/4deg  
TOH FOR LOGS  
LOGGED BY:  
GEMINI