

**OPERATOR**

Company: Younger Energy Company  
 Address: 9415 E. Harry  
 Suite 403  
 Wichita, KS 67207

Contact Geologist:  
 Contact Phone Nbr: 316-681-2542  
 Well Name: Strecker "B" #8  
 Location: Sec. 36 - T14S - R14W  
 API: 15-167-24044-0000  
 Pool:  
 State: Kansas

Field: Hall - Gurney  
 Country: USA



Scale 1:240 Imperial

Well Name: Strecker "B" #8  
 Surface Location: Sec. 36 - T14S - R14W  
 Bottom Location:  
 API: 15-167-24044-0000  
 License Number: 30705  
 Spud Date: 2/12/2016 Time: 1:30 PM  
 Region: Russell County  
 Drilling Completed: 2/18/2016 Time: 5:15 AM  
 Surface Coordinates: 2310' FNL & 550' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1745.00ft  
 K.B. Elevation: 1753.00ft  
 Logged Interval: 2250.00ft To: 3202.00ft  
 Total Depth: 3202.00ft  
 Formation: Pre-Cambrian  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 Latitude:  
 N/S Co-ord: 2310' FNL  
 E/W Co-ord: 550' FEL

**LOGGED BY**

***Keith Reavis***  
*Consulting Geologist*

Company: Keith Reavis, Inc.  
 Address: 3420 22nd Street  
 Great Bend, KS 67530

Phone Nbr: 620-617-4091  
 Logged By: KLG #136

Name: Keith Reavis

**CONTRACTOR**

Contractor: Duke Drilling Co.  
 Rig #: 2  
 Rig Type: mud rotary  
 Spud Date: 2/12/2016  
 TD Date: 2/18/2016  
 Rig Release:

Time: 1:30 PM  
 Time: 5:15 AM  
 Time:

**ELEVATIONS**

K.B. Elevation: 1753.00ft  
K.B. to Ground: 8.00ft

Ground Elevation: 1745.00ft

**NOTES**

Due to negative results of DST's 1, 2, and 3, along with un-favorable structural position, it was determined that the Strecker B #8 was non-commercial and should be plugged and abandoned as a dry test.

A Bloodhound gas detection system operated by Bluestem Labs was employed during the drilling of this well. ROP and gas data were imported into this mudlog. Gamma ray and caliper curves were also imported from the electrical suite.

Respectfully submitted  
Keith Reavis

## Younger Energy Company daily drilling report

DATE	7:00 AM DEPTH	REMARKS
02/15/2016		Geologist Keith Reavis on location @ 0500 hrs, 2106 ft, drilling ahead Tarkio, Howard, Topeka
02/16/2016	2770	drilling ahead, Topeka, King Hill, Queen Hill, Heebner, Toronto, show and gas kick in Toronto warrants test, short trip, conduct and complete DST #1, successful test, TIH w/bit, resume drilling, Douglas shale, Lansing
02/17/2016	2936	drilling ahead, Lansing, show in C zone warrants test, TOH for DST #2, conducting DST #2, complete DST #2, successful test, resume drilling Lansing
02/18/2016	3202	drilling ahead, Lansing/BKC, Reagan, Pre Cambrian, TD @ 0515 hrs, cfs and ctch, TOH, conduct and complete logging operations, straddle test Reagan sand, successful test, geologist off location @ 2000 hrs

## Younger Energy Company well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Well #					Cities Service - Strecker B5				Rosel - Strecker B5			
2310' FNL & 550' FBL					C B/2 SE NE				C B/2 NE NE			
Sec 36-T14S-R14W					Sec 36-T14S-R14W				Sec 36-T14S-R14W			
1753 KB					1741 KB		Structural Relationship		1738 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Tarkio Lime	2320	-567	2320	-567	2304	-563	-4	-4	2300	-562	-5	-5
Howard	2526	-773	2527	-774	2512	-771	-2	-3	2507	-769	-4	-5
Topeka	2592	-839	2592	-839	2576	-835	-4	-4	2571	-833	-6	-6
Heebner	2825	-1072	2825	-1072	2808	-1067	-5	-5	2805	-1067	-5	-5
Toronto	2842	-1089	2842	-1089	2826	-1085	-4	-4	2822	-1084	-5	-5
Douglas	2858	-1105	2857	-1104	2842	-1101	-4	-3	2836	-1098	-7	-6
Lansing	2891	-1138	2892	-1139	2876	-1135	-3	-4	2871	-1133	-5	-6
Base KC	3125	-1372	3128	-1375	3112	-1371	-1	-4	3107	-1369	-3	-6
Reagan Sand	3145	-1392	3146	-1393	3129	-1388	-4	-5	3130	-1392	0	-1
Granite Wash	3150	-1397	3152	-1399	3135	-1394	-3	-5	3142	-1404	7	5
Granite	3173	-1420	3174	-1421								
Total Depth	3202	-1449	3204	-1451	3135	-1394	-55	-57	3162	-1424	-25	-27

COMPARISON WELL					COMPARISON WELL			
Rosel - Strecker B2					Cities Service - Strecker B4			
C W/2 W/2 NE					C S/2 NE			
Sec 36-T14S-R14W					Sec 36-T14S-R14W			
1759 KB			Structural Relationship		1744 KB		Structural Relationship	
Formation	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Tarkio Lime	2320	-561	-6	-6	2309	-565	-2	-2
Howard	2528	-769	-4	-5	2517	-773	0	-1
Topeka	2592	-833	-6	-6	2582	-838	-1	-1
Heebner	2827	-1068	-4	-4	2813	-1069	-3	-3
Toronto	2845	-1086	-3	-3	2830	-1086	-3	-3
Douglas	2859	-1100	-5	-4	2845	-1101	-4	-3
Lansing	2892	-1133	-5	-6	2882	-1138	0	-1
Base KC	3130	-1371	-1	-4	3118	-1374	2	-1
Reagan Sand	3144	-1385	-7	-8	3133	-1389	-3	-4
Granite Wash					3139	-1395	-2	-4



Granite							
Total Depth	3185	-1426	-23	-25	3139	-1395	-54

### Drill Stem Test #1

	<b>DRILL STEM TEST REPORT</b>	
	YOUNGER ENERGY COMPANY	
9415 EAST HARRY STREET SUITE 403 BUILDING 400 WICHITA, KANSAS 67207-5083 ATTN:	<b>STRECKER B 8</b> Job Ticket: 01211 <b>DST#: 1</b> Test Start: 2016.02.16 @ 04:00:00	

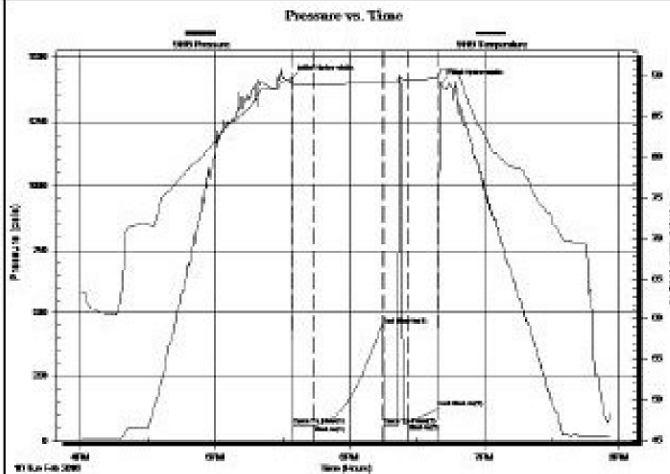
#### GENERAL INFORMATION:

Formation: **TORONTO**  
 Deviated: No Whipstock      ft (KB)  
 Time Tool Opened: 05:30:00  
 Time Test Ended: 19:56:00  
 Interval: **2822.00 ft (KB) To 2880.00 ft (KB) (TVD)**  
 Total Depth: 2880.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches -ole Condition: Fair  
 Test Type: Conventional Bottom Hole (hitia)  
 Tester: GENE BUDIG  
 Unit No: 1  
 Reference Bevatons: 1753.00 ft (KB)  
 1745.00 ft (CF)  
 KB to GR/CF: 8.00 ft

#### Serial #: 9119

Press@RunDepth: 128.32 psia @      ft (KB)      Capacity:      psia  
 Start Date: 2016.02.16      End Date: 2016.02.16      Last Calib.: 1899.12.30  
 Start Time: 16:00:00      End Time: 19:56:00      Time On Btm: 2016.02.16 @ 17:34:00  
 Time Off Btm: 2016.02.16 @ 18:40:30

**TEST COMMENT:** 1ST OPENING 10 MINUTES WEAK SURFACE BLOW FOR 8 MINUTES AND DIED  
 1ST SHUT-IN 30 MINUTES-NO BLOW BACK  
 2ND OPENING 10 MINUTES-NO BLOW-FLUSHED TOOL=GOOD SURGE-NO HELP  
 2ND SHUT-IN 10 MINUTES NO BLOW BACK



#### PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1417.99	89.45	Initial Hydro-static
1	58.94	89.07	Open To Flow(1)
10	59.24	88.99	Shut-In(1)
41	451.37	89.39	End Shut-In(1)
41	61.70	89.30	Open To Flow(2)
52	68.88	89.49	Shut-In(2)
66	128.32	89.76	End Shut-In(2)
67	1399.76	90.80	Final Hydro-static

#### Recovery

Length (ft)	Description	Volume (bbl)
10.00	OIL SPECKED MUD	0.14

#### Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (M ddd)

### Drill Stem Test #2

	<b>DRILL STEM TEST REPORT</b>	
	YOUNGER ENERGY COMPANY	
9415 EAST HARRY STREET SUITE 403 BUILDING 400 WICHITA, KANSAS 67207-5083 ATTN:	<b>STRECKER B 8</b> Job Ticket: 01211 <b>DST#: 1</b> Test Start: 2016.02.16 @ 04:00:00	



400  
WICHITA, KANSAS 67207-5083  
ATTN:

Job Ticket: 01212 DST#: 2  
Test Start: 2016.02.17 @ 04:00:00

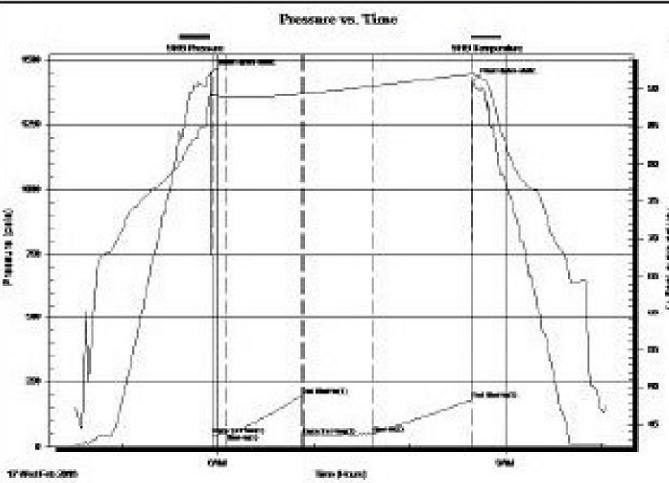
**GENERAL INFORMATION:**

Formation: **KANSAS CITY**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:58:00  
 Time Test Ended: 10:03:00  
 Interval: **2898.00 ft (KB) To 2936.00 ft (KB) (TVD)**  
 Total Depth: 2936.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-76  
 Reference Elevations: 1753.00 ft (KB)  
 1745.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 9119**

Press@RunDepth: 180.68 psia @ ft (KB) Capacity: psia  
 Start Date: 2016.02.17 End Date: 2016.02.17 Last Calib.: 1899.12.30  
 Start Time: 04:30:00 End Time: 10:03:00 Time On Btm: 2016.02.17 @ 05:56:00  
 Time Off Btm: 2016.02.17 @ 08:40:00

**TEST COMMENT:** 1ST OPENING 10 MINUTES-WEAK BUILDING BLOW BUILT TO 1 1/2 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 45 MINUTES-WEAK BUILDING BLOW BUILT BOTTOM OF THE BUCKET IN 28 MINUTE  
 2ND SHUT-IN 60 MINUTES-NO BLOW BACK



**PRESSURE SUMMARY**

Time (Mn.)	Pressure (psia)	Temp (deg F)	Annotation
0	1450.42	89.61	Initial Hydro-static
1	45.85	89.08	Open To Flow (1)
10	48.55	88.93	Shut-In (1)
57	196.65	89.36	End Shut-In (1)
58	41.36	89.34	Open To Flow (2)
101	48.49	90.38	Shut-In (2)
163	180.68	91.96	End Shut-In (2)
164	1416.26	92.22	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	180 feet of gas in the pipe	0.00
15.00	slightly oil cut mud 10 oil 90 mud	0.21

**Gas Rates**

Choke (inches)	Pressure (psia)	Gas Rate (M dft)

**Drill Stem Test #3**



**DRILL STEM TEST REPORT**

YOUNGER ENERGY COMPANY

9415 EAST HARRY STREET SUITE 403 BUILDING  
 400  
 WICHITA, KANSAS 67207-5083  
 ATTN:

**STRECKER B 8**  
 Job Ticket: 1213 DST#: 3  
 Test Start: 2016.02.18 @ 14:02:00

**GENERAL INFORMATION:**

Formation: **REAGAN**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:42:00  
 Time Test Ended: 20:08:00  
 Interval: **3120.00 ft (KB) To 3154.00 ft (KB) (TVD)**  
 Total Depth: 3154.00 ft (KB) (TVD)  
 Test Type: Conventional Straddle (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-76  
 Reference Elevations: 1753.00 ft (KB)  
 1745.00 ft (CF)

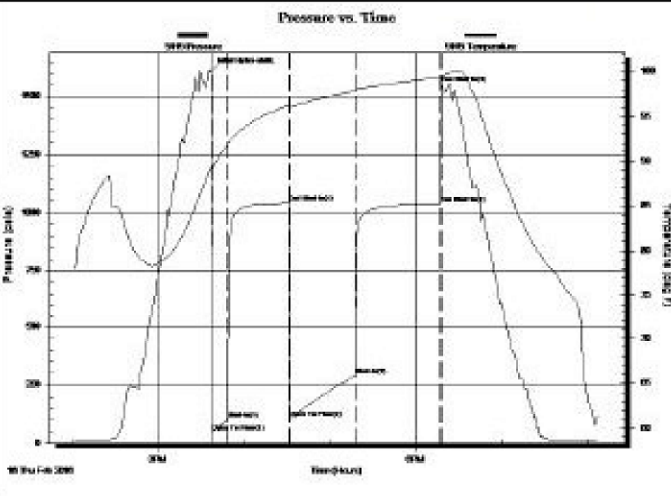


Total Depth: 3204.00 ft (KB) (IVD)      1745.00 ft (CF)      Hole Diameter: 7.88 inches -hole Condition: Fair      KB to GR/CF: 8.00 ft

**Serial #: 9119**

Press@RunDepth: 1555.96 psia @      ft (KB)      Capacity:      psia  
 Start Date: 2016.02.18      End Date: 2016.02.18      Last Calib.: 1899.12.30  
 Start Time: 14:02:00      End Time: 20:08:30      Time On Btm: 2016.02.18 @ 15:37:30  
 Time Off Btm

**TEST COMMENT:** 1ST OPENING 10 MINUTES-WEAK BUILDING BLOW BUILT TO BOTTTOM OF THE BUCKET IN 8 MINUTES  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 45 MINUTES-WEAK BUILDING BLOW BUILT TO BOTTOM OF THE BUCKET IN 8 MINUTES  
 2N SHUT-IN 60 MINUTES-NO BLOW BACK



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1609.63	89.28	Initial Hydro-static
1	47.03	88.84	Open To Flow(1)
12	101.40	91.87	Shut-In(1)
55	1041.64	96.22	End Shut-In(1)
55	106.04	95.81	Open To Flow(2)
101	288.16	97.79	Shut-In(2)
160	1038.92	99.34	End Shut-In(2)
161	1555.96	99.47	End Shut-In(3)

Length (ft)	Description	Volume (tbi)
0.00	60 feet of gas in the pipe	0.00
60.00	gassy slightly oil cut muddy water	0.84
0.00	50 gas 5 oil 20 mud 25 water	0.00
60.00	slightly oil cut muddy water	0.84
0.00	5 oil 35 mud 60 water	0.00
180.00	slightly muddy water with a trace of oil	2.52

Choke (Inches)	Pressure (psia)	Gas Rate (M d/d)

**ROCK TYPES**

Dolsec	Lmst fw7>	Carbon Sh	Siltst	Qtz Cryst
sdy lmsd	shale, grn	shale, red	Igne	
Lmst fw<7	shale, gry	Ss	Brec	

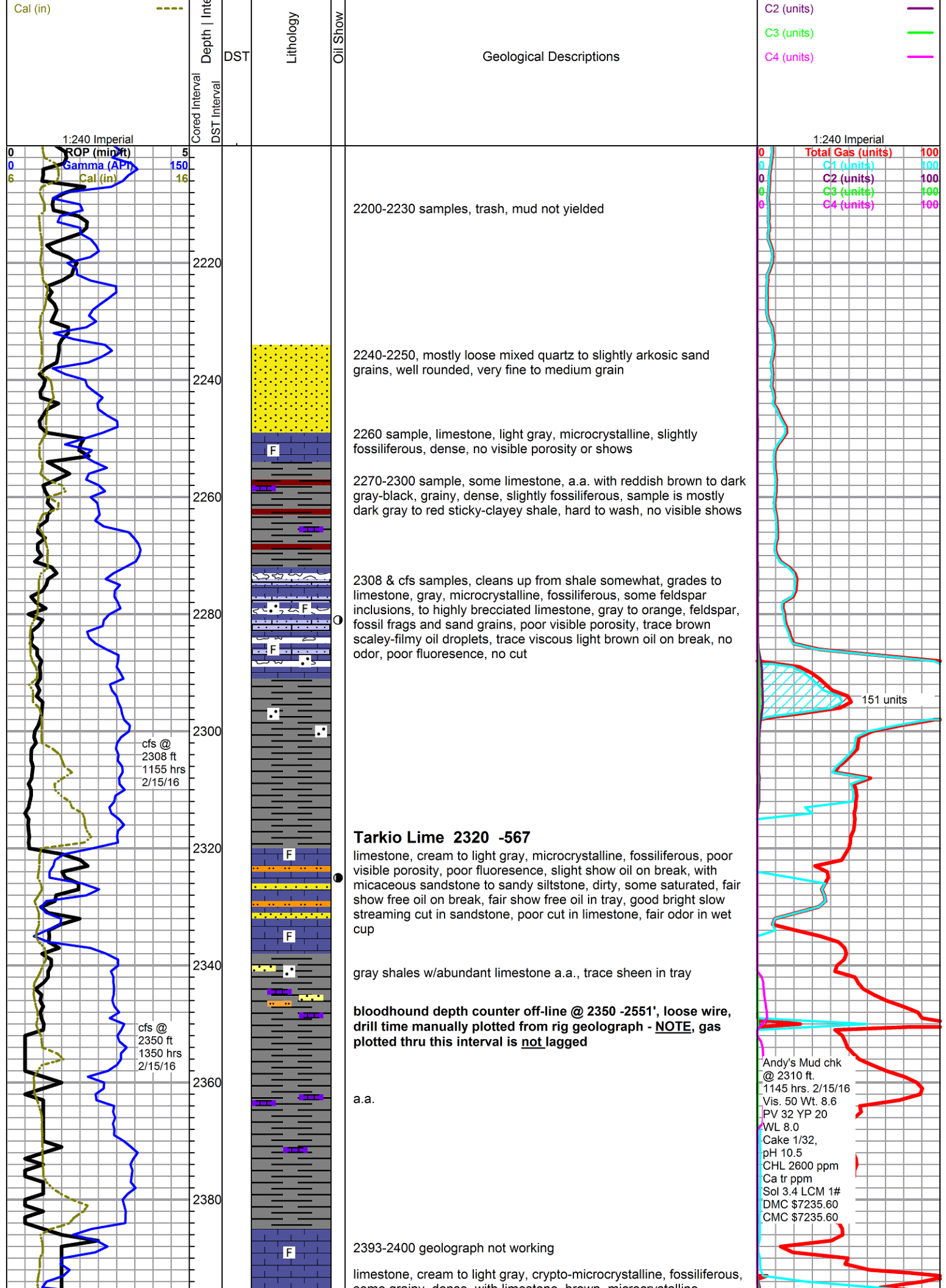
**ACCESSORIES**

<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
▲ Chert, dark	∩ Bioclastic or Fragments	■ Limestone	C Chalky
• Sandy	F Fossils < 20%	● Sandstone	L Lithogr
Mc Mica	⊙ Oolite	● Siltstone	
	⊘ Pellets	■ Shale	
	⊙ Oomoldic	■ green shale	
		■ red shale	

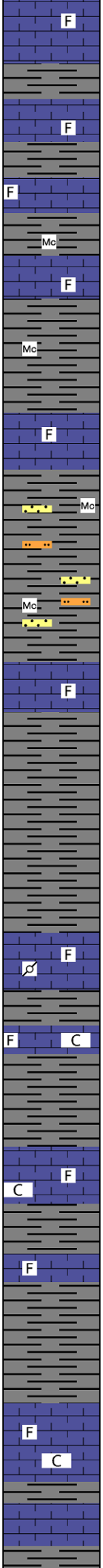
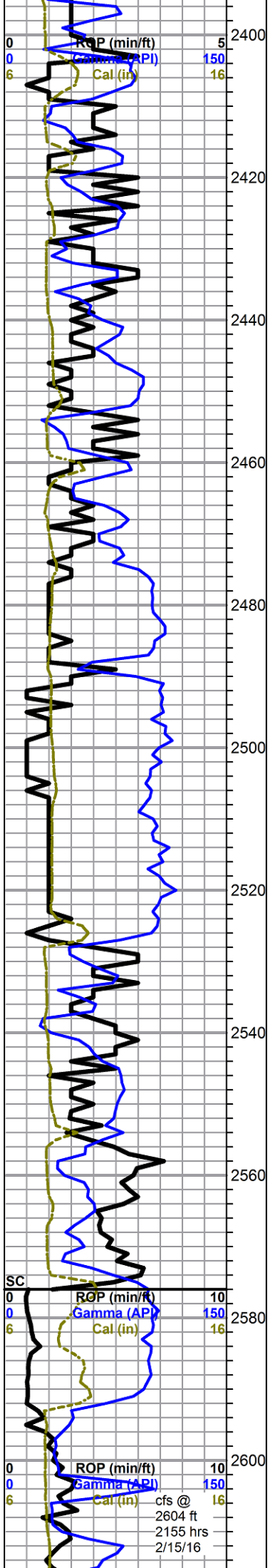
**OTHER SYMBOLS**

<b>Oil Show</b>	<b>DST</b>
● Good Show	■ DST Int
● Fair Show	■ DST alt
○ Poor Show	■ Core
○ Spotted or Trace	■ tail pipe
○ Questionable Stn	
D Dead Oil Stn	
■ Fluorescence	
* Gas	

Curve Track #1					TG, C1 - C5
ROP (min/ft)	—				Total Gas (units) —
Gamma (API)	—				C1 (units) —







some grainy, dense, with limestone, brown, microcrystalline, fossiliferous, dense, no shows

gray shales, micaceous in part, with some micaceous siltstone, with limestones, cream to gray, some mottled, mixed fossiliferous, mostly dense, no shows

a.a.

marked increase in siltstone with dirty micaceous silty sandstones

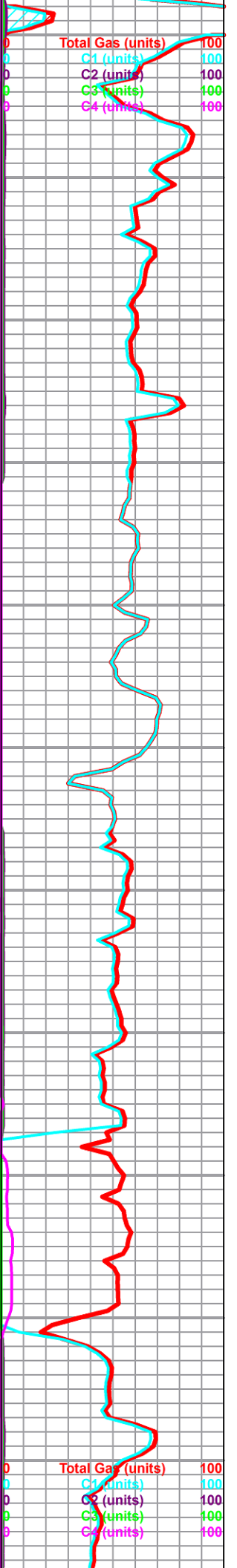
gray shales

**Howard 2526 -773**  
 limestone, brown to gray, microcrystalline, fossiliferous, some pelletal, grainy to gritty, some large clasts, poor visible porosity, with limestone, light gray to cream, cryptocrystalline, fossiliferous, dense to chalky, no shows, scattered light fluorescence

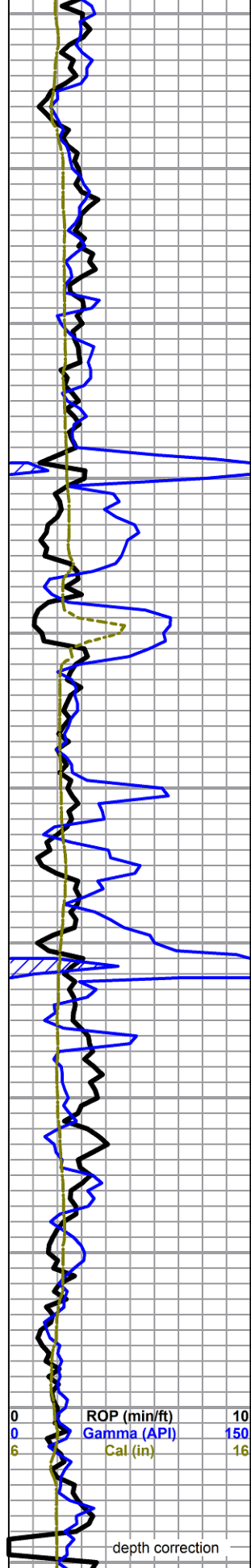
**Bloodhound depth counter back on line @ 2551', now importing electronic drill time and lagged gas**

gray and cream limestones a.a., brown limestone drops out

**Topeka 2592 -839**  
 limestone, gray to light gray, some mottled, fossiliferous, trace pellets, dense to soft chalky weathered, poor visible porosity, some chalk, no shows

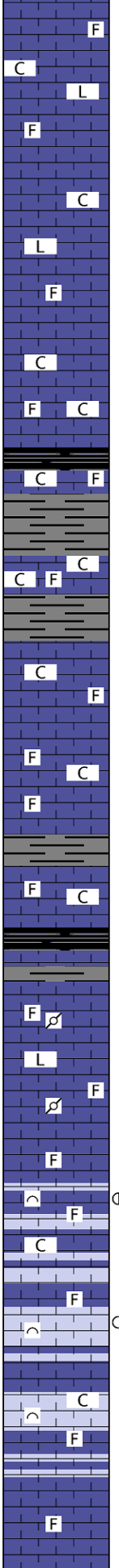


2620  
2640  
2660  
2680  
2700  
2720  
2740  
2760  
2780  
2800  
2820



0 ROP (min/ft) 10  
0 Gamma (API) 150  
6 Cal (in) 16

depth correction



limestone, cream to light gray, micro-cryptocrystalline, fossiliferous, chalky in part, limestone, dark gray, cryptocrystalline, lithographic to fossiliferous, dense, some arenaceous, no shows

as above, darker limestones marked decrease, increase chalkiness

**King Hill Shale**

shale, black to brown carbonaceous  
limestone, mixed cream to gray, abundant chalk in samples

limestones, mixed non-descript fossiliferous, moderate chalk in samples, no shows

as above

**Queen Hill Shale**

shale, black carbonaceous  
limestone, gray, some mottled, micro-cryptocrystalline, fossiliferous to pelletal, with limestone, cream to light gray, sub-lithographic, dense, no shows

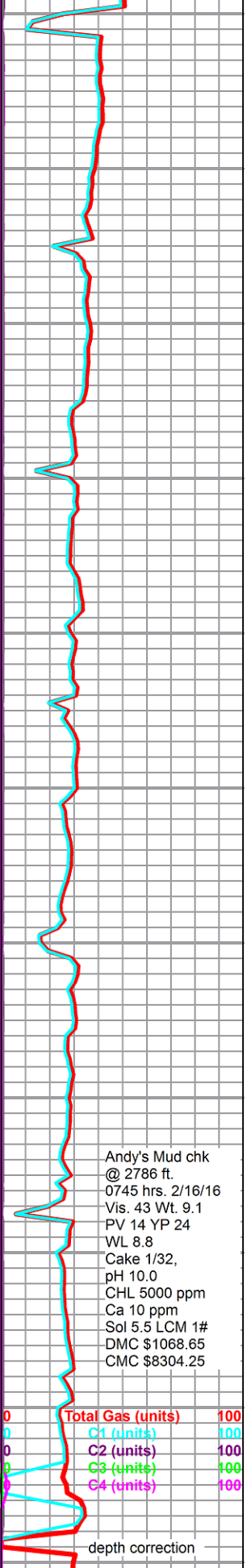
limestone, cream to tan, fossiliferous to bioclastic, fair interclast porosity, spotty to saturated light brown stain, slight sheen, no free oil, weak odor in wet cup, poor fluorescence, good cut with halo

limestone, cream to tan, bioclastic, some fair porosity, light stain, no odor, no show free oil, poor fluorescence, slow fair to weak cut

mixed dense fossiliferous limestones

**Heebner 2825 -1072**

shale, black carbonaceous

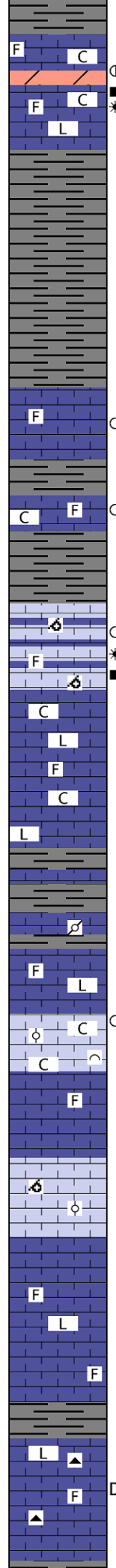
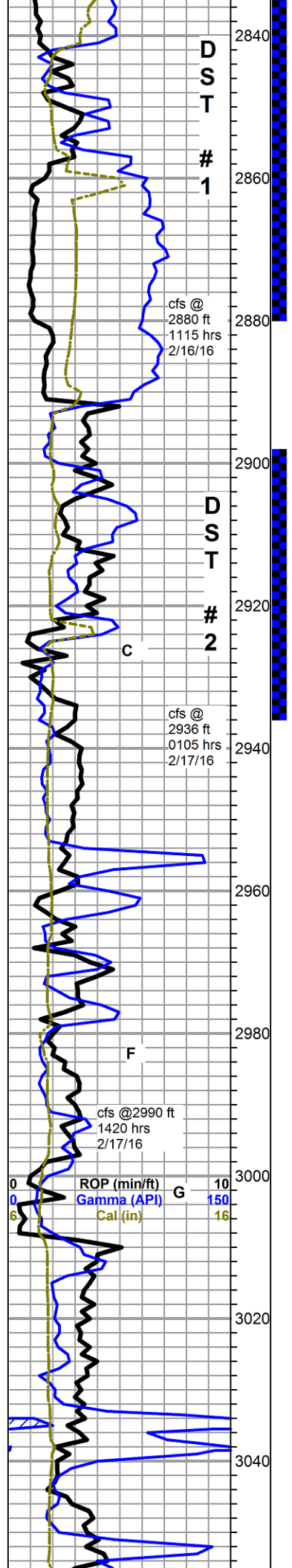


Andy's Mud chk  
@ 2786 ft.  
0745 hrs. 2/16/16  
Vis. 43 Wt. 9.1  
PV 14 YP 24  
WL 8.8  
Cake 1/32,  
pH 10.0  
CHL 5000 ppm  
Ca 10 ppm  
Sol 5.5 LCM 1#  
DMC \$1068.65  
CMC \$8304.25

0 Total Gas (units) 100  
0 C1 (units) 100  
0 C2 (units) 100  
0 C3 (units) 100  
0 C4 (units) 100

depth correction





**Toronto 2842 -1089**

limestone, white to pale gray/green, cryptocrystalline, lithographic to fossiliferous, dense to chalky, abundant chalk, with limestone, tan, dolomitic, crystalline to grainy, trace recrystallized fossils, some secondary large calcite, pinpoint porosity, light golden stain, spotty to saturated, slight show free oil, gas bubbles, faint odor, good fluorescence, good cut

**Douglas 2858 -1105**

pipe strap 0.24 ft short to board - deviation survey 1/4 deg.

**Lansing 2891 -1138**

limestone, light gray to white, mostly cryptocrystalline, some secondary calcite, sub-lithographic to fossiliferous, cherty in part, trace chert, poor porosity, scattered light stain, slight sheen with few droplets free oil, fleeting odor, fair fluorescence, poor cut

limestone a.a., some grainy, increase in chalk

limestone, cream to light gray, crypto-microcrystalline, sub-lithographic to fossiliferous and grainy, some vugs, light stain, gassy slight bleeding, with limestone, light gray, oomoldic to sub-oomoldic, some good mold porosity, some scattered to fair stain, some gassy with slight bleeding and show on break, sheen in tray, slight show free oil, fair odor, yellow fluorescence, fair cut with halo

limestone, white to light gray, mostly cryptocrystalline lithographic, chalky in part, with some fossiliferous, chalky to dense, moderate chalk, no shows

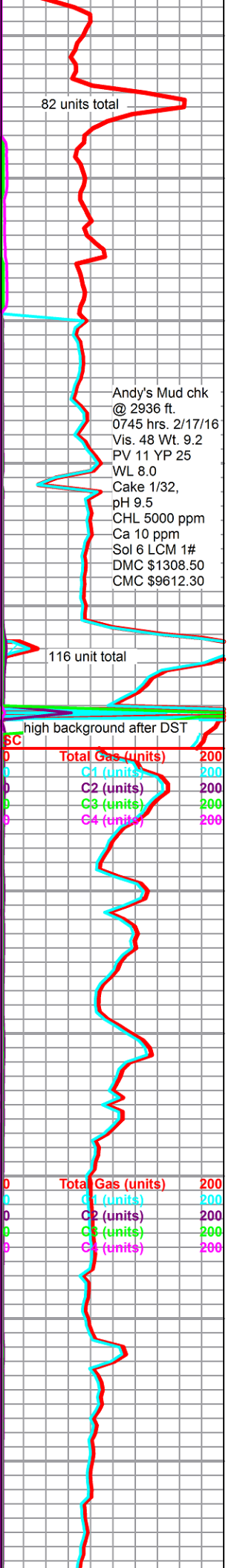
gray shales with limestone a.a., increase in fossiliferous, with some gray mottled pelletal, chalky, no shows

limestone, white to light gray, bioclastic, oolitic and fossiliferous, some fair interclast porosity, friable with some loose oolites, scattered light stain, trace free oil on break, slight odor on break, dull fluorescence, slow milky cut, no odor in wet cup, with abundant white soft chalky limestone, abundant chalk in samples, heavy chalky wash

limestone, white, oolitic, oomoldic and sub-oomoldic, good to fair mold porosity, barren, no fluorescence

limestone, mixed fossiliferous to lithographic, dense, no shows

3050-60 limestone, gray to cream and white, lithographic to fossiliferous, some arenaceous, with abundant chert, light gray fossiliferous and dark gray, 1 piece slight solution etching with stain, no other shows



82 units total

116 unit total

Andy's Mud chk @ 2936 ft. 0745 hrs. 2/17/16 Vis. 48 Wt. 9.2 PV 11 YP 25 WL 8.0 Cake 1/32, pH 9.5 CHL 5000 ppm Ca 10 ppm Sol 6 LCM 1# DMC \$1308.50 CMC \$9612.30

high background after DST

Total Gas (units)	200
C1 (units)	200
C2 (units)	200
C3 (units)	200
C4 (units)	200

Total Gas (units)	200
C1 (units)	200
C2 (units)	200
C3 (units)	200
C4 (units)	200

