

**OPERATOR**

Company: Falcon Exploration, Inc.  
 Address: 125 N. Market Suite 1252  
 Wichita, KS 67202  
 Contact Geologist: Brian Fisher  
 Contact Phone Nbr: 316-262-1378  
 Well Name: Martha Garetson #1-35 (SE)  
 Location: Sec. 35 - T27S - R31W  
 Pool: Sec. 35 - T27S - R31W  
 State: Kansas  
 API: #15-081-21976--0000  
 Field: Wildcat  
 Country: USA

Scale 1:240 Imperial

Well Name: Martha Garetson #1-35 (SE)  
 Surface Location: Sec. 35 - T27S - R31W  
 Bottom Location:  
 API: #15-081-21976--0000  
 License Number: 5316  
 Spud Date: 3/15/2012  
 Region: Haskell County  
 Drilling Completed: 3/28/2012  
 Surface Coordinates: 1840' FSL & 330' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2839.00ft  
 K.B. Elevation: 2850.00ft  
 Logged Interval: 2660.00ft  
 Total Depth: 5381.00ft  
 Formation: Mississippian  
 Drilling Fluid Type: Chemical/Fresh Water Gel  
 Time: 11:25  
 Time: 04:10  
 To: 5381.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: Latitude:  
 N/S Co-ord: 1840' FSL  
 E/W Co-ord: 330' 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: Sterling Drilling Company  
 Rig #: 2  
 Rig Type: mud rotary  
 Spud Date: 3/15/2012  
 TD Date: 3/28/2012  
 Rig Release:  
 Time: 11:25  
 Time: 04:10  
 Time:

**ELEVATIONS**

K.B. Elevation: 2850.00ft  
 K.B. to Ground: 11.00ft  
 Ground Elevation: 2839.00ft

**NOTES**

A Tooke Daq gas detection system owned by Sterling Drilling Company was employed on this well and drill time and gas data curves were imported into this report.

Due to negative drill stem tests, sample and electrical log evaluation, it was determined that the Martha Garetson #1-35 would be non-commercial and should be plugged and abandoned as a dry test.

The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully submitted  
 Keith Reavis


**Falcon Exploration, Inc**  
**daily drilling report**

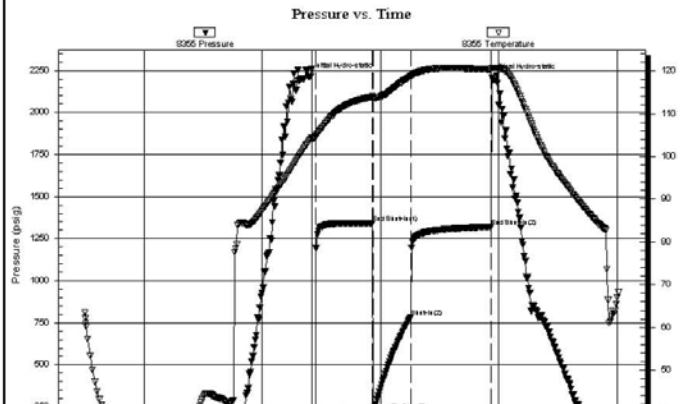
DATE	7:00 AM DEPTH	REMARKS
03/19/2012	2743	Geologist Keith Reavis on location @ 0430 hrs, 2653 ft., drilling ahead permian and Chase Group, Fort Riley, Cottonwood
03/20/2012	3364	drilling ahead, Neva, Foraker, Stotler, Tarkio, Bern
03/21/2012	3920	drilling ahead, Topeka, Lecompton, Heebner, Douglas, Lansing
03/22/2012	4429	drilling ahead, LKC, show in upper and lower J zone, no show in Swope, short trip, TOH and straddle upper and lower J with DST #1
03/23/2012	4585	conducting DST #1, complete DST #1, successful test, TIH w/bit, resume drilling LKC
03/24/2012	4772	drilling ahead, Marmaton, Pawnee, Cherokee
03/25/2012	4974	show gas kicks in Cherokee warrant DST, TOH w/bit and in w/tools, conduct DST #2, successful test, TIH with bit, resume drilling
03/26/2012	5115	drilling ahead, Morrow, Mississippian Chester and St. Gen
03/27/2012	5317	drilling ahead, Mississippian St. Lo, run DST #3, successful test back in hole w/bit, resume drilling
03/28/2012	5381	rathole ahead to TD @ 5381 ft @ 0410 hrs, TOH for logs, conduct logging operations, determined that lower Lans. J needs straddle test, run in with tools for DST #4, successful test, geologist released 2100 hrs

**well comparison sheet**

DRILLING WELL					COMPARISON WELL			
Martha Garetson #1-35					Garetson Bros. #1-36			
1840' FSL & 330' FEL					1680' FNL & 2310' FEL			
Sec 35-T27S-R31W					Sec 36-T27S-R31W			
2850 KB					2858 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Chase	2686	164	2680	170	2684	174	-10	-4
Winfield	2764	86	2762	88	2767	91	-5	-3
Towanda	2802	48	2804	46	2808	50	-2	-4
Ft. Riley	2851	-1	2854	-4	2859	-1	0	-3
Neva	3182	-332	3178	-328	3186	-328	-4	0
Foraker	3293	-443	3292	-442	3303	-445	2	3
Stotler	3529	-679	3527	-677	3542	-684	5	7
Tarkio	3599	-749	3595	-745	3614	-756	7	11
Topeka	3789	-939	3788	-938	3808	-950	11	12
Heebner	4110	-1260	4105	-1255	4131	-1273	13	18
Lansing	4200	-1350	4197	-1347	4229	-1371	21	24
Stark Sh.	4559	-1709	4556	-1706	4583	-1725	16	19
Marmaton	4701	-1851	4704	-1854	4728	-1870	19	16
Pawnee	4792	-1942	4792	-1942	4821	-1963	21	21
Cherokee	4837	-1987	4834	-1984	4863	-2005	18	21
Morrow	5030	-2180	5029	-2179	5068	-2210	30	31
Mississippi	5094	-2244	5092	-2242	5124	-2266	22	24
St. Gen	5161	-2311	5163	-2313	5186	-2328	17	15
St. Lo Por	5272	-2422	5272	-2422	5289	-2431	9	9
Total Depth	5381	-2531	5381	-2531	5552	-2694	163	163

**DST #1**

	<b>DRILL STEM TEST REPORT</b>	
	Falcon Exp. 125 N Market Wchita Ks 67202-1719 ATTN: Keith Revus	35/27/31 <b>Martha G 1-35</b> Job Ticket: 41252 Test Start: 2012.03.23 @ 01:30:00 <b>DST# 1</b>
<b>GENERAL INFORMATION:</b> Formation: <b>Lansing J</b> Deviated: No Whipstock: ft (KB) Time Tool Opened: 07:16:15 Time Test Ended: 15:03:15 Interval: <b>4496.00 ft (KB) To 4553.00 ft (KB) (TVD)</b> Total Depth: 4585.00 ft (KB) (TVD) Hole Diameter: 7.88 inches-Hole Condition: Fair Test Type: Conventional Straddle (Initial) Tester: Harley Davidson Unit No: 58 Reference Elevations: 2850.00 ft (KB) 2839.00 ft (CF) KB to GR/CF: 11.00 ft		
Serial #: <b>8355</b> Outside Press@RunDepth: 780.51 psig @ 4531.00 ft (KB) Start Date: 2012.03.23 End Date: 2012.03.23 Start Time: 01:30:05 End Time: 15:03:15 Capacity: 8000.00 psig Last Calib.: 2012.03.23 Time On Btm: 2012.03.23 @ 07:09:45 Time Off Btm: 2012.03.23 @ 11:49:45		
TEST COMMENT: IF- Strong blow BOB 3min. IS- No blow back FF- Strong blow BOB 3min. FS- Weak blow back		




Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.72	103.27	Initial Hydro-static
7	95.50	104.08	Open To Flow (1)
12	195.60	104.48	Shut-In(1)
98	1341.67	113.96	End Shut-In(1)
100	225.20	113.74	Open To Flow (2)
156	780.51	118.69	Shut-In(2)
279	1319.09	120.35	End Shut-In(2)
280	2210.08	120.70	Final Hydro-static

Recovery			Gas Rates		
Length (ft)	Description	Volume (bbl)	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
0.00	870' GIP	0.00			
124.00	100% oil	0.61			
620.00	5% gas 5% oil 5% mud 85% water	7.55			
930.00	100% water	13.05			

TriLOBITE TESTING, Inc Ref. No: 41252 Printed: 2012.03.23 @ 13:34:05

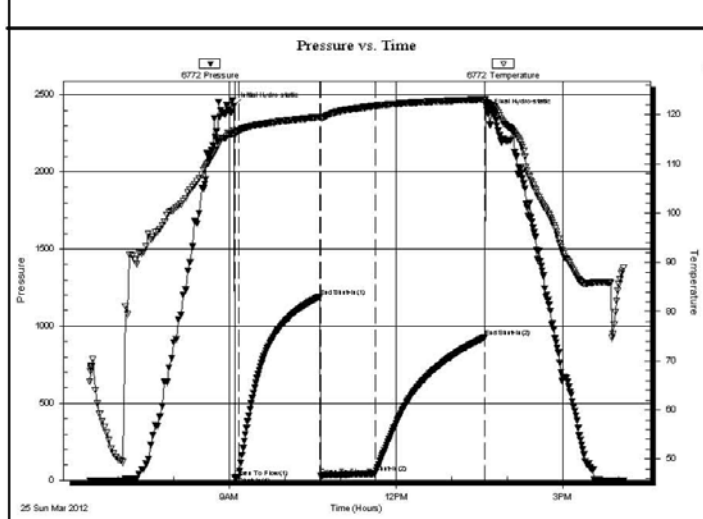
**DST #2**

	<b>DRILL STEM TEST REPORT</b>	
	Falcon Exp.	<b>35/27/31</b>
	125 N Market Wichita Ks 67202-1719	<b>Martha G 1-35</b>
ATTN: Keith R	Job Ticket: 41253	<b>DST# 2</b>
	Test Start: 2012.03.25 @ 06:30:00	

**GENERAL INFORMATION:**  
 Formation: **Cherokee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:06:00  
 Time Test Ended: 16:05:15  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Harley Davidson  
 Unit No: 58  
 Interval: **4932.00 ft (KB) To 4974.00 ft (KB) (TVD)**  
 Total Depth: 4974.00 ft (KB) (TVD)  
 Reference Elevations: 2850.00 ft (KB)  
 2839.00 ft (CF)  
 Hole Diameter: 7.88 inches-Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 6772 Outside**  
 Press@RunDepth: 47.61 psig @ 4934.00 ft (KB)  
 Start Date: 2012.03.25 End Date: 2012.03.25  
 Start Time: 06:30:05 End Time: 16:05:15  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.03.25  
 Time On Btm: 2012.03.25 @ 09:05:00  
 Time Off Btm: 2012.03.25 @ 13:38:45

**TEST COMMENT:** IF- Strong blow BOB 3min.  
 IS- No blow back  
 FF- Strong blow BOB 3min.  
 FS- No blow back




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2425.95	116.82	Initial Hydro-static
1	18.96	116.34	Open To Flow (1)
6	23.21	116.74	Shut-In(1)
93	1190.63	119.51	End Shut-In(1)
94	27.74	119.24	Open To Flow (2)
153	47.61	121.78	Shut-In(2)
270	925.92	123.10	End Shut-In(2)
274	2382.50	122.26	Final Hydro-static

Recovery			Gas Rates		
Length (ft)	Description	Volume (bbl)	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
0.00	2000' GIP	0.00			
60.00	100% mud	0.30			

TriLOBITE TESTING, Inc Ref. No: 41253 Printed: 2012.03.25 @ 21:37:54

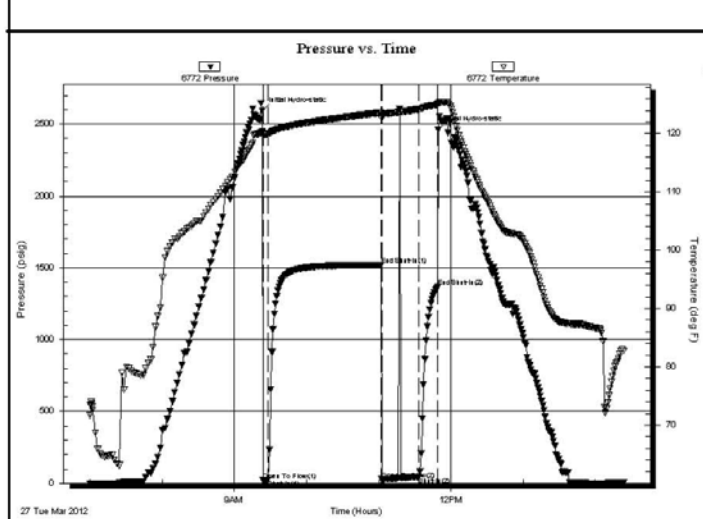
**DST #3**

	<b>DRILL STEM TEST REPORT</b>	
	Falcon Exp.	<b>35/27/31</b>
	125 N Market Wichita Ks 67202-1719	<b>Martha G 1-35</b>
ATTN: Keith R	Job Ticket: 41254	<b>DST# 3</b>
	Test Start: 2012.03.27 @ 07:00:00	

**GENERAL INFORMATION:**  
 Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:23:45  
 Time Test Ended: 14:24:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Harley Davidson  
 Unit No: 58  
 Interval: **5266.00 ft (KB) To 5317.00 ft (KB) (TVD)**  
 Total Depth: 5317.00 ft (KB) (TVD)  
 Reference Elevations: 2850.00 ft (KB)  
 2839.00 ft (CF)  
 Hole Diameter: 7.88 inches-Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 6772 Outside**  
 Press@RunDepth: 45.88 psig @ 5269.00 ft (KB)  
 Start Date: 2012.03.27 End Date: 2012.03.27  
 Start Time: 07:00:05 End Time: 14:23:59  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.03.27  
 Time On Btm: 2012.03.27 @ 09:23:15  
 Time Off Btm: 2012.03.27 @ 11:49:15

**TEST COMMENT:** IF- Weak surface blow.  
 IS- No blow back  
 FF- No blow, flushed tool, No blow.  
 FS- No blow back

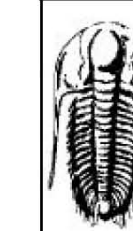


PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2593.77	120.31	Initial Hydro-static
1	21.00	119.82	Open To Flow (1)
5	24.33	119.95	Shut-In(1)
99	1520.46	123.59	End Shut-In(1)
99	27.16	122.68	Open To Flow (2)
130	45.88	124.19	Shut-In(2)
146	1367.01	124.97	End Shut-In(2)
146	2460.49	125.19	Final Hydro-static

Recovery			Gas Rates		
Length (ft)	Description	Volume (bbl)	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
10.00	100% Mud	0.05			

TriLOBITE TESTING, Inc Ref. No: 41254 Printed: 2012.03.28 @ 07:39:59

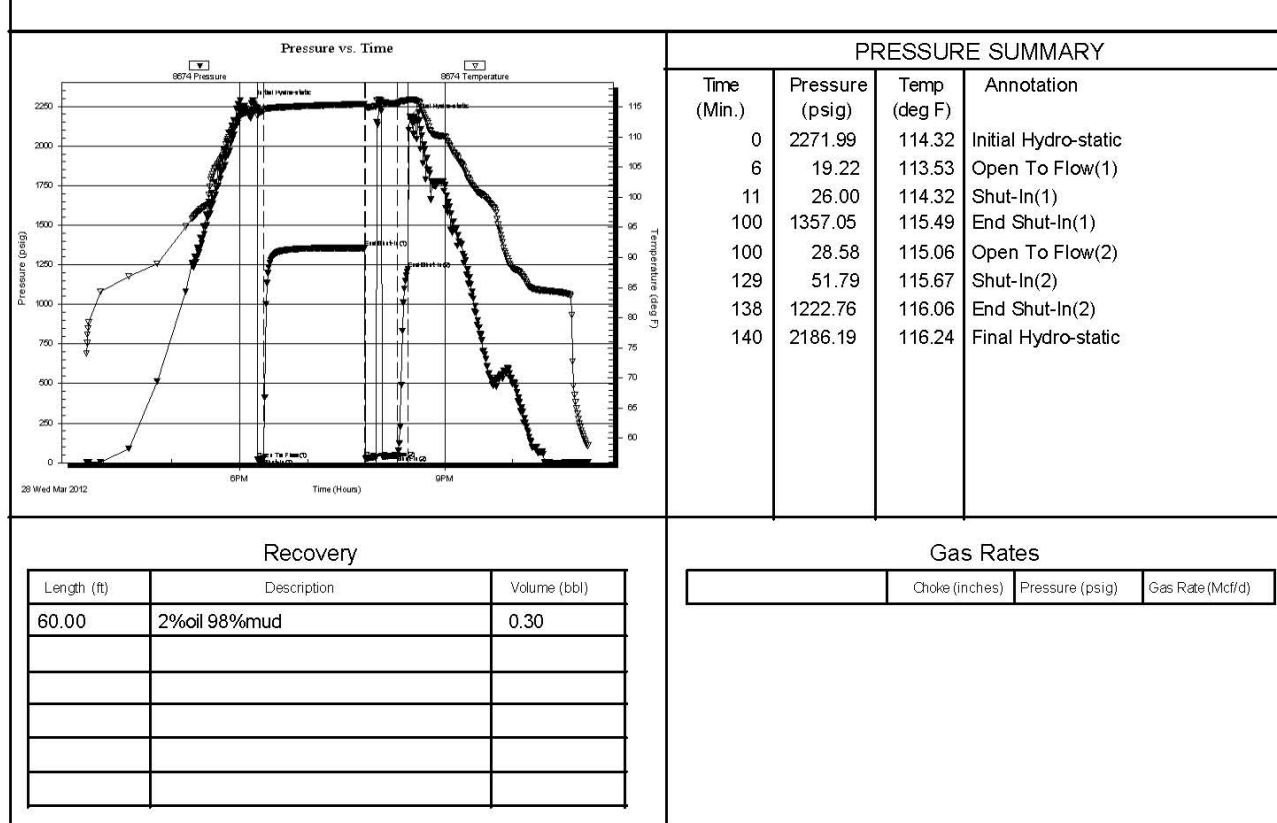
**DST #4**

	<b>DRILL STEM TEST REPORT</b>	
	Falcon Exp.	<b>35/27/31</b>
	125 N Market Wichita Ks 67202-1719	<b>Martha G 1-35</b>
ATTN: Keith R	Job Ticket: 41255	<b>DST# 4</b>
	Test Start: 2012.03.28 @ 15:45:00	

**GENERAL INFORMATION:**  
 Formation: **LSG J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:15:30  
 Time Test Ended: 23:06:09  
 Test Type: Conventional Straddle (Initial)  
 Tester: Harley Davidson  
 Unit No: 58  
 Interval: **4520.00 ft (KB) To 4546.00 ft (KB) (TVD)**  
 Total Depth: 5381.00 ft (KB) (TVD)  
 Reference Elevations: 2850.00 ft (KB)  
 2839.00 ft (CF)  
 Hole Diameter: 7.88 inches-Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 8674**  
 Press@RunDepth: 51.79 psig @ ft (KB)  
 Start Date: 2012.03.28 End Date: 2012.03.28  
 Start Time: 15:45:05 End Time: 23:06:10  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.03.28  
 Time On Btm: 2012.03.28 @ 18:10:10  
 Time Off Btm: 2012.03.28 @ 20:29:20

**TEST COMMENT:** IF- Weak surface blow.  
 IS- No blow back.  
 FF- No blow.  
 FS- No blow back.



Length (ft)	Description	Volume (bbl)
60.00	2%oil 98%mud	0.30

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

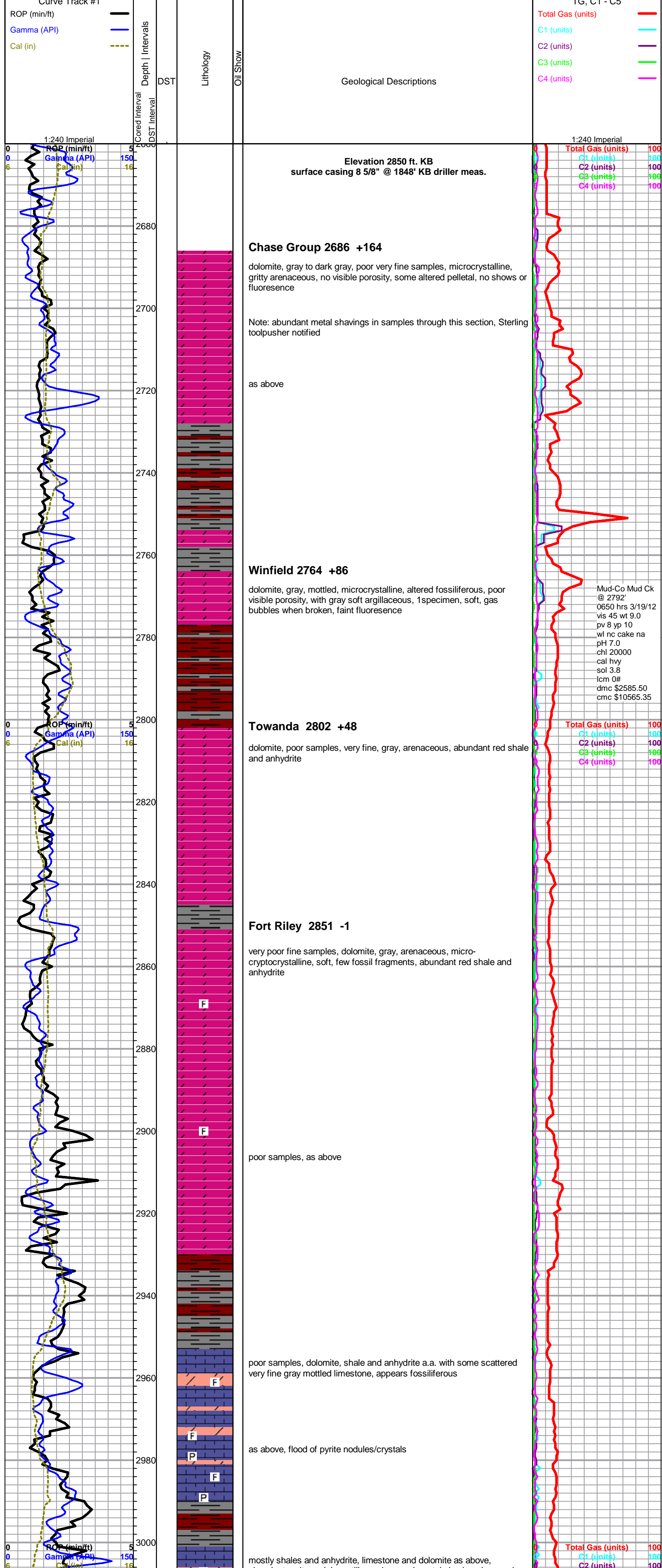
Trilobite Testing, Inc Ref. No: 41255 Printed: 2012.03.29 @ 17:48:30

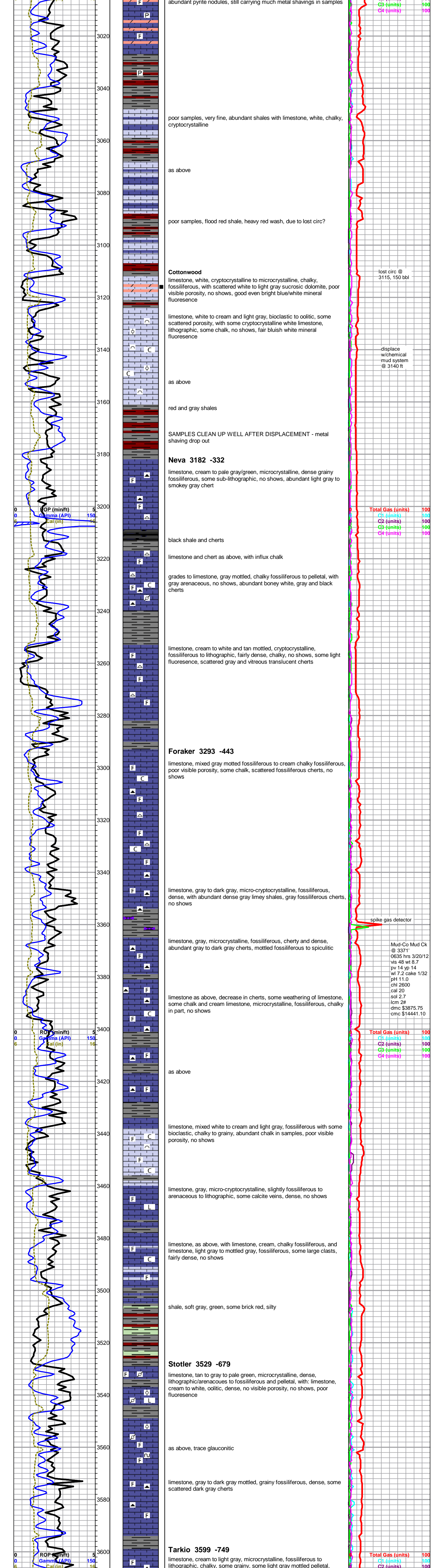
	Dolprim		Lmst fw<7		shale, gry		Ss
	Dolsec		Lmst fw>7		Carbon Sh		shale, red
	sdymst		shale, grn		shale, red		

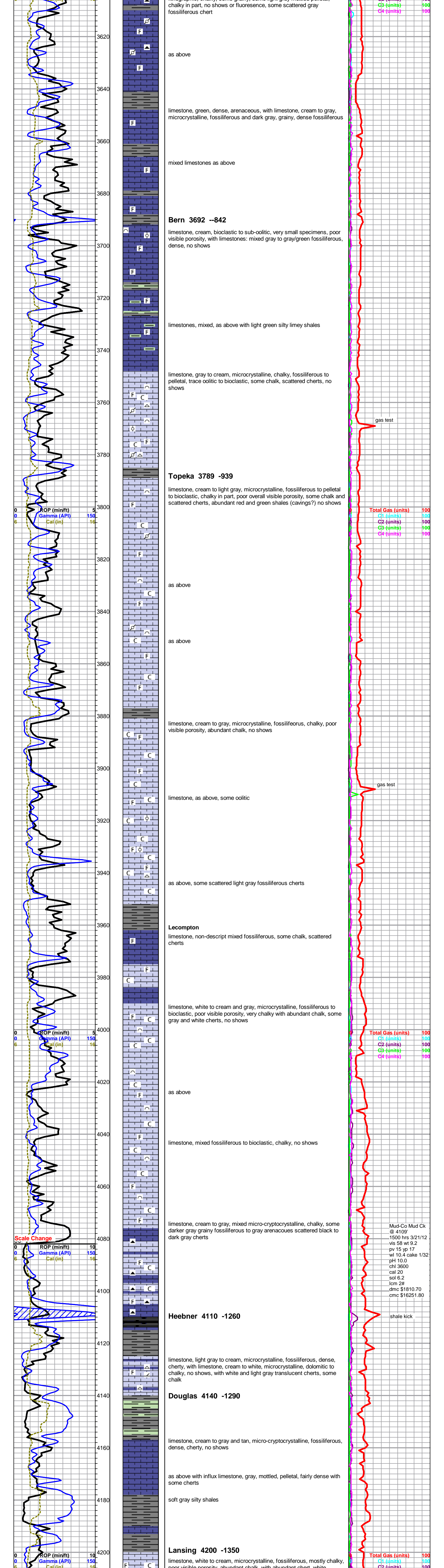
<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
▲ Chert, dark ▲ Dolomitic ∩ Glaucanite P Pyrite △ Chert White	∩ Bioclastic or Fragmental ∩ Coral F Fossils < 20% ∩ Oolite ∩ Pellets ∩ Oomoldic	■ Limestone ■ Sandstone ■ Siltstone ■ Shale ■ green shale ■ red shale ■ carb shale	C Chalky L Lithogr

<b>MISC</b>	<b>DST</b>
DR Daily Report Digital Photo Document Folder Link Vertical Log File Horizontal Log File Core Log File Drill Cuttings Rpt	DST Int DST alt Core tail pipe

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chalky in part, no shows or fluorescence, some scattered gray fossiliferous chert

C3 (units) 100  
C4 (units) 100

as above

limestone, green, dense, arenaceous, with limestone, cream to gray, microcrystalline, fossiliferous and dark gray, grainy, dense fossiliferous

mixed limestones as above

**Bern 3692 --842**

limestone, cream, bioclastic to sub-oolitic, very small specimens, poor visible porosity, with limestones: mixed gray to gray/green fossiliferous, dense, no shows

limestones, mixed, as above with light green silty limey shales

limestone, gray to cream, microcrystalline, chalky, fossiliferous to pelletal, trace oolitic to bioclastic, some chalk, scattered cherts, no shows

gas test

**Topeka 3789 -939**

limestone, cream to light gray, microcrystalline, fossiliferous to pelletal to bioclastic, chalky in part, poor overall visible porosity, some chalk and scattered cherts, abundant red and green shales (cavings?) no shows

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

as above

as above

limestone, cream to gray, microcrystalline, fossiliferous, chalky, poor visible porosity, abundant chalk, no shows

gas test

limestone, as above, some oolitic

as above, some scattered light gray fossiliferous cherts

**Lecompton**

limestone, non-descript mixed fossiliferous, some chalk, scattered cherts

limestone, white to cream and gray, microcrystalline, fossiliferous to bioclastic, poor visible porosity, very chalky with abundant chalk, some gray and white cherts, no shows

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

as above

limestone, mixed fossiliferous to bioclastic, chalky, no shows

limestone, cream to gray, mixed micro-cryptocrystalline, chalky, some darker gray grainy fossiliferous to gray arenaceous scattered black to dark gray cherts

Mud-Co Mud Ck @ 4109' 1500 hrs 3/21/12 vis 58 wt 9.2 pv 15 yp 17 wl 10.4 cake 1/32 pH 10.0 chl 3600 cal 20 sol 6.2 lcm 2# dmc \$1810.70 cmc \$16251.80

**Heebner 4110 -1260**

shale kick

limestone, light gray to cream, microcrystalline, fossiliferous, dense, cherty, with limestone, cream to white, microcrystalline, dolomitic to chalky, no shows, with white and light gray translucent cherts, some chalk

**Douglas 4140 -1290**

limestone, cream to gray and tan, micro-cryptocrystalline, fossiliferous, dense, cherty, no shows

as above with influx limestone, gray, mottled, pelletal, fairly dense with some cherts

soft gray silty shales

**Lansing 4200 -1350**

limestone, white to cream, microcrystalline, fossiliferous, mostly chalky, poor visible porosity, abundant chalk, with abundant chert, white

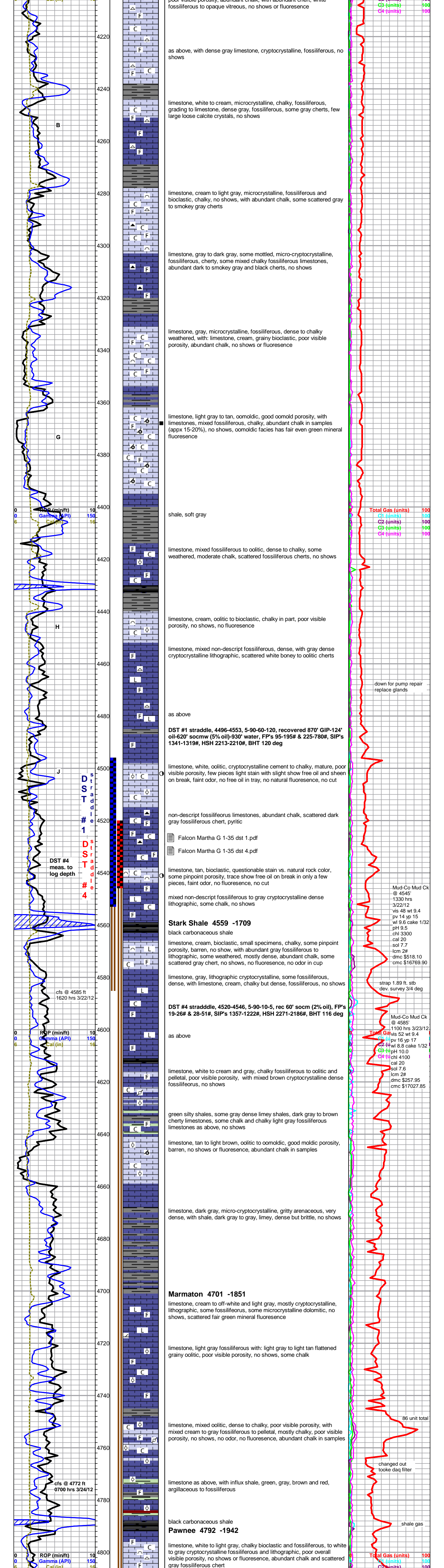
Total Gas (units) 100  
C1 (units) 100  
C2 (units) 100

ROP (min/ft) 5  
Gamma (API) 150  
Cal (in) 16

ROP (min/ft) 5  
Gamma (API) 150  
Cal (in) 16

Scale Change  
ROP (min/ft) 10  
Gamma (API) 150  
Cal (in) 16

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



poor visible porosity, abundant chert, with abundant chert, white fossiliferous to opaque vitreous, no shows or fluorescence

C3 (units) 100  
C4 (units) 100

as above, with dense gray limestone, cryptocrystalline, fossiliferous, no shows

limestone, white to cream, microcrystalline, chalky, fossiliferous, grading to limestone, dense gray, fossiliferous, some gray cherts, few large loose calcite crystals, no shows

limestone, cream to light gray, microcrystalline, fossiliferous and bioclastic, chalky, no shows, with abundant chalk, some scattered gray to smokey gray cherts

limestone, gray to dark gray, some mottled, micro-cryptocrystalline, fossiliferous, cherty, some mixed chalky fossiliferous limestones, abundant dark to smokey gray and black cherts, no shows

limestone, gray, microcrystalline, fossiliferous, dense to chalky weathered, with: limestone, cream, grainy bioclastic, poor visible porosity, abundant chalk, no shows or fluorescence

limestone, light gray to tan, oomoldic, good oomold porosity, with limestones, mixed fossiliferous, chalky, abundant chalk in samples (appx 15-20%), no shows, oomoldic facies has fair even green mineral fluorescence

shale, soft gray

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

limestone, mixed fossiliferous to oolitic, dense to chalky, some weathered, moderate chalk, scattered fossiliferous cherts, no shows

limestone, cream, oolitic to bioclastic, chalky in part, poor visible porosity, no shows, no fluorescence

limestone, mixed non-descript fossiliferous, dense, with gray dense cryptocrystalline lithographic, scattered white boney to oolitic cherts

down for pump repair  
replace glands

as above

**DST #1 straddle, 4496-4553, 5-90-60-120, recovered 870' GIP-124' oil-620' socmw (5% oil)-930' water, FP's 95-195# & 225-780#, SIP's 1341-1319#, HSH 2213-2210#, BHT 120 deg**

limestone, white, oolitic, cryptocrystalline cement to chalky, mature, poor visible porosity, few pieces light stain with slight show free oil and sheen on break, faint odor, no free oil in tray, no natural fluorescence, no cut

non-descript fossiliferous limestones, abundant chalk, scattered dark gray fossiliferous chert, pyritic

Falcon Martha G 1-35 dst 1.pdf  
Falcon Martha G 1-35 dst 4.pdf

limestone, tan, bioclastic, questionable stain vs. natural rock color, some pinpoint porosity, trace show free oil on break in only a few pieces, faint odor, no fluorescence, no cut

mixed non-descript fossiliferous to gray cryptocrystalline dense lithographic, some chalk, no shows

**Stark Shale 4559 -1709**  
black carbonaceous shale

Mud-Co Mud Ck @ 4545' 1330 hrs 3/22/12 vis 48 wt 9.4 pv 14 yp 15 wl 9.6 cake 1/32 chl 9.5 cal 3300 sol 20 lcm 2# dmc \$518.10 cmc \$16769.90

limestone, cream, bioclastic, small specimens, chalky, some pinpoint porosity, barren, no show, with abundant gray fossiliferous to lithographic, some weathered, mostly dense, abundant chalk, some scattered gray chert, no shows, no fluorescence, no odor in cup

limestone, gray, lithographic cryptocrystalline, some fossiliferous, dense, with limestone, cream, chalky but dense, fossiliferous, no shows

strap 1.89 ft. stb dev. survey 3/4 deg

**DST #4 straddle, 4520-4546, 5-90-10-5, rec 60' socm (2% oil), FP's 19-26# & 28-51#, SIP's 1357-1222#, HSH 2271-2186#, BHT 116 deg**

as above

Mud-Co Mud Ck @ 4585' 1100 hrs 3/23/12 vis 52 wt 9.4 pv 16 yp 17 wl 8.8 cake 1/32 chl 10.0 cal 4100 sol 20 lcm 2# dmc \$257.95 cmc \$17027.85

limestone, white to cream and gray, chalky fossiliferous to oolitic and pelletal, poor visible porosity, with mixed brown cryptocrystalline dense fossiliferous, no shows

green silty shales, some gray dense limey shales, dark gray to brown cherty limestones, some chalk and chalky light gray fossiliferous limestones as above, no shows

limestone, tan to light brown, oolitic to oomoldic, good moldic porosity, barren, no shows or fluorescence, abundant chalk in samples

limestone, dark gray, micro-cryptocrystalline, gritty arenaceous, very dense, with shale, dark gray to gray, limey, dense but brittle, no shows

**Marmaton 4701 -1851**  
limestone, cream to off-white and light gray, chalky fossiliferous to lithographic, some off-white and some microcrystalline dolomitic, no shows, scattered fair green mineral fluorescence

limestone, light gray fossiliferous with: light gray to light tan flattened grainy oolitic, poor visible porosity, no shows, some chalk

limestone, mixed oolitic, dense to chalky, poor visible porosity, with mixed cream to gray fossiliferous to pelletal, mostly chalky, poor visible porosity, no shows, no odor, no fluorescence, abundant chalk in samples

86 unit total

limestone as above, with influx shale, green, gray, brown and red, argillaceous to fossiliferous

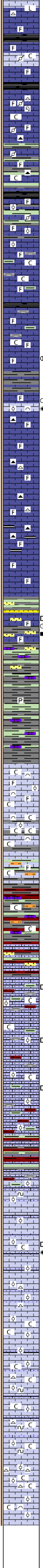
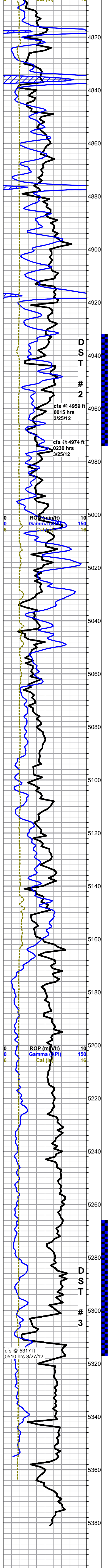
changed out  
tooke daq filter

black carbonaceous shale  
**Pawnee 4792 -1942**

shale gas

limestone, white to light gray, chalky bioclastic and fossiliferous, to white to gray cryptocrystalline fossiliferous and lithographic, poor overall visible porosity, no shows or fluorescence, abundant chalk and scattered gray fossiliferous chert

Total Gas (units) 100  
C1 (units) 100  
C2 (units) 100



shale, black carbonaceous

limestone, gray, microcrystalline, fossiliferous to pelletal, grainy, chalky, some tan/brown cherty cryptocrystalline, fossiliferous, no shows

**Cherokee 4837 -1987**  
shale, black carbonaceous

limestones, mixed gray, fossiliferous to pelletal, chalky and grainy, mixed fossiliferous cherts, sharp, fresh, some large bryozoan and coral fan frags, some mixed shales

grading to limestone, dark gray, dense crypto-microcrystalline, fossiliferous, with cream to light gray, chalky fossiliferous to pelletal, marked increase in shales, cherts as above

shale black carbonaceous

limestone, brown to tan, oolitic to pelletal and fossiliferous, dense to sub-chalky, with limestone, gray, cryptocrystalline, dense lithographic, trace pyritic, still abundant shales, mixed

limestones, mixed non-descript fossiliferous, mostly gray, some fairly chalky, decreasing shales, no shows

limestone, mostly gray chalky to grainy fossiliferous, with mixed tan to brown fossiliferous, some chalky/weathered

limestone, brown to gray, crypto-microcrystalline, fossiliferous, some large clasts and crystals, some fair pinpoint porosity, trace solution vugs, spotty to fair staining, slight to fair show free oil on break, faint fluorescence, no cut, fleeting odor in wet cup, light fluorescence, good bright white streaming cut

Falcon Martha G 1-35 dst 2.pdf

60 min cfs - few small pieces light brown oolitic/bioclastic, questionable light brown stain, gas bubbles and oil film on break, faint fluorescence, no cut, fleeting odor - some limestone as at 4940 in 4970 sample, no odor in wet cup

limestone, gray to light brown, mixed xln, fossiliferous, with light gray limestone, chalky fossiliferous to pelletal, poor porosity, limestone, cryptocrystalline dense but chalky, sl. fossiliferous, some calcite seams, bright green mineral fluorescence no cut - no noticable shows in samples or odor in wet cup, some scattered cherts

limestone, mixed gray to cream and brown, mixed crystalline to arenaceous, dense, abundant mixed chert

**DST #2, 4932-4974, 5-90-60-120, recovered 2000' GIP & 60 ft mud, FP's 18-23# & 27-47#, SIP's 1190-925#, HSH 2425-2382#, BHT 123 deg**

limestone as above, increasing brown mixed crystalline lithographic to fossiliferous, cherty, dense, influx dark gray to black cherts, black shale and black dense limey/calcareous shales, no shows or fluorescence

limestone, light gray, microcrystalline, fossiliferous, chalky in part, with limestone, brown to tan, cherty cryptocrystalline, fossiliferous, some secondary calcite crystals, trace small vugs, no shows or fluorescence - 5040 sample, flood dark gray and brown dense cherty, fossiliferous limestones

**Morrow 5030 -2192**  
light gray to light green, soft, slightly pyritic shales

5060 sample - sandstone, quartz, fine grained, poorly sorted, glauconitic, barren, some shale loaded with sandstone a.a., dark brown stain, some limestone inclusions, no free oil, asphalt loaded, no odor, or fluorescence, slow medium cut with halo, limestones, dark gray and brown, dense, very fossiliferous, large clasts, some sandy, no show

5070 sample - light gray to light green waxy shales, some scattered sand a.a., limestone, mixed cream to gray to brown, fine specimens, chalky in part, fossiliferous, some interclast porosity, scattered light brown stain, one specimen with trace heavy free oil and gas bubbles, faint fluorescence with fair streaming cut - no odor in wet samples

a.a., some pyrite - limestone and sand drops out

shales, green to gray, soft to dense waxy, some coal/asphalt seams, with limestone, light gray to gray green, smooth compact lithographic to arenaceous lithographic

**Mississippian Chester 5094 -2244**

limestone, gray to blue/gray and cream, oolitic and bioclastic, some large clasts, dense to heavily weathered and chalky poor visible porosity, no shows or fluorescence, abundant chalk

limestone, as above with flood chalk (appx 20-30%) and light gray/green smooth compact lithographic limestone, soft to dense, pale gray/green limey shale and light green silty/sandy shale, no shows or fluorescence

a.a. some green silty shales and dark green dense siltstone, some dark green limestone

flood shales, abundant brick red, samples wash red, some silty to sandy, siltstone a.a., with abundant tan cryptocrystalline limestone, fossiliferous, dense, some other mixed limestone, abundant chalk

**St Gen. 5161 -2311**  
shales as above, with limestone, gray, very sandy, chalky and gray very fine grain sandstone, shaley-chalky, no shows

limestone, white to light gray, sandy to very sandy, micro-oolitic, chalky in part, fairly friable, poor visible porosity, barren to spotty to saturated brown to dark brown dead staining, trace scaley film on break, no odor, no fluorescence, decreasing shales

limestone as above, progressively decreasing staining, still carrying some shales as above

as above

5240 and 50 samples, flood shales, gray, green, maroon-brick red and maroon/green mottled, appx 70% of sample in 5250 sample

5260, a.a. limestone is barren, couple pieces white oolitic with slightly larger mature oolites, slightly sandy, chalky, barren

**St. Louis 5247 -2397**

limestone, cream to light gray, trace pale green, flattened to sub-mature oolitic, slightly sandy, chalky and glauconitic in part, poor visible porosity, no show or fluorescence (shales drop out 5270 sample)

limestone a.a., with limestone, cream, mature to flattened oolitic, chalky, sandy in part, poor visible porosity, glauconitic, no show with very faint overall fluorescence

limestone as above, with some light gray dense flattened oolitic, some scattered inter-oolite dissolution with black to brown glauconitic stain, no show oil, few gas bubbles on break, overall poor porosity, no odor, very faint fluorescence, no cut, abundant chalk

limestone, cream to light gray, micro to fine oolitic, mostly flattened, sandy in part, dense to chalky, no show, with: chert, light gray translucent fossiliferous

Falcon Martha G 1-35 dst 3.pdf

limestone, cream to white, mature, chalky, no visible porosity, no shows, very faint even fluorescence, some loose oolites, no odor, no cut, moderate chalk in samples

limestone, light gray, mature to flattened oolitic, dense, grainy, slightly glauconitic, poor visible porosity, with limestone, cream to white, mature very chalky oolitic, slightly glauconitic, no visible porosity, scattered light gray sandy limestone, no shows or fluorescence, abundant chalk, some scattered chert

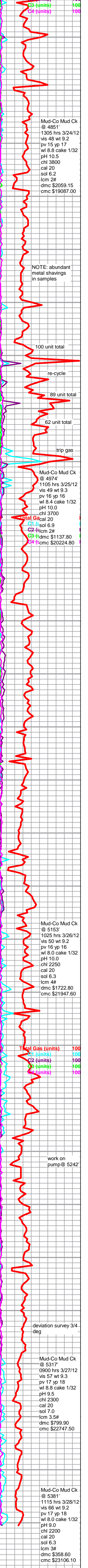
**DST #3, 5266-5317, 5-90-10-10, recovered 10 ft. mud, FP's 21-24# & 27-45#, SIP's 1520-1367#, HSH 2594-2460#, BHT 125 deg**

as above

limestone, light gray to white, oolitic, mature, chalky, no visible porosity, no show or fluorescence, abundant chalk, abundant gray fossiliferous chert

limestone, light gray, mature to flattened oolitic, dense, slightly glauconitic, with limestone, cream to white, oolitic to bioclastic, chalky, no visible porosity, scattered light gray sandy limestone, no shows or fluorescence, abundant chalk

**Rotary TD 5381 ft. @ 0410 hrs 3/28/12**  
**Log Tech TD 5381 ft.**  
**complete logging operations @ 1445 hrs 3/28/12**



Mud-Co Mud Ck @ 4851'  
1305 hrs 3/24/12  
vis 48 wt 9.2  
pv 15 yp 17  
wl 8.8 cake 1/32  
pH 10.5  
chl 3800  
cal 20  
sol 6.2  
lcm 2#  
dmc \$2059.15  
cmc \$19087.00

NOTE: abundant metal shavings in samples

100 unit total

re-cycle

89 unit total

62 unit total

trip gas

Mud-Co Mud Ck @ 4974'  
1105 hrs 3/25/12  
vis 49 wt 9.3  
pv 16 yp 16  
wl 8.4 cake 1/32  
pH 10.0  
chl 3700  
cal 20  
sol 6.9  
lcm 2#  
dmc \$1137.80  
cmc \$20224.80

Mud-Co Mud Ck @ 5153'  
1025 hrs 3/26/12  
vis 50 wt 9.2  
pv 16 yp 16  
wl 8.0 cake 1/32  
pH 10.0  
chl 2250  
cal 20  
sol 6.3  
lcm 4#  
dmc \$1722.80  
cmc \$21947.60

Total Gas (units) 100  
C1 (units) 100  
C2 (units) 100  
C3 (units) 100  
C4 (units) 100  
C5 (units) 100

work on pump @ 5242'

deviation survey 3/4-deg

Mud-Co Mud Ck @ 5317'  
0900 hrs 3/27/12  
vis 57 wt 9.3  
pv 17 yp 18  
wl 8.8 cake 1/32  
pH 9.5  
chl 2300  
cal 20  
sol 7.0  
lcm 3.5#  
dmc \$799.90  
cmc \$22747.50

Mud-Co Mud Ck @ 5381'  
1115 hrs 3/28/12  
vis 66 wt 9.2  
pv 17 yp 18  
wl 8.0 cake 1/32  
pH 9.0  
chl 2200  
cal 20  
sol 6.3  
lcm 3#  
dmc \$358.60  
cmc \$23106.10