



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1209292
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1209292

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size: _____ Set At: _____ Packer At: _____	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	C. Shrack 1-15
Doc ID	1209292

All Electric Logs Run

Dual Induction
Compensated Neutron
Sonic
Micro

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3653

Date	4-30-10	Sec.	15	Twp.	26	Range	13	County	PRATT	State	KS	On Location		Finish	5:30 PM
Lease	SHRACK C		Well No.	1-15		Location									
Contractor										Owner					
STERLING H										1/2 E N INTO					
Type Job										To Quality Oilwell Cementing, Inc.					
CONDUCTOR										You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Hole Size		12 1/2		T.D.		225									
Csg.		13 3/8 48"		Depth		220									
Tbg. Size				Depth		Charge To									
						CAPTIVA									
Tool				Depth		Street									
						City									
						State									
Cement Left in Csg.		15		Shoe Joint		15									
The above was done to satisfaction and supervision of owner agent or contractor.										CEMENT					
Meas Line				Displace		31.2 BBL									
EQUIPMENT										Amount Ordered					
										225 COM 3% CL 2% GEL					
Pumptrk		5 No.		Cementer		TODD		4 1/2		Common					
				Helper						225					
Bulktrk		8 No.		Driver		JOE		5		Poz. Mix					
				Driver											
Bulktrk		PU No.		Driver		DARIN		5 1/2		Gel.					
				Driver						4					
JOB SERVICES & REMARKS										Calcium					
Remarks:										8					
Ren 5 H's 13 3/8 48"										Hulls					
Mix & Pump 225 sk Common										Salt					
2% GEL 3% CL										Flowseal					
15 #/gal 1.36 H3															
Disp Bbls total										Handling					
										237					
Cement circulated										Mileage					
										.08 PER SK PER M. 15					
										FLOAT EQUIPMENT					
										Guide Shoe					
										Centralizer					
										Baskets					
										AFU Inserts					
										Pumptrk Charge					
										Sufaco					
										Mileage					
										10					
Thanks										Tax					
DOD DASHN JOE										Discount					
Signature <i>[Signature]</i>										Total Charge					
PLEASE CALL AGAIN															
Pratt															

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3661

Date	5-8-10	Sec.	15	Twp.	26	Range	13	County	PRATT	State	Ks	On Location		Finish	3:00 P.M.	
Lease	SHRACK C			Well No.	1-15			Location	PRATT, Ks N to BYEES BIK TOP							
Contractor	STEELING DELS "4"							Owner	1/2 E N END							
Type Job	PTA							To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Hole Size	7 7/8			T.D.	4650			Charge To	CAPTIVA							
Csg.								Depth								
Tbg. Size								Depth								
Tool								Depth								
Cement Left in Csg.								Shoe Joint								
Meas Line								Displace								
EQUIPMENT								CEMENT								
Pumptrk	5	No.		Cementer	TODD			5	Amount Ordered	255 sk 60/40 4% GEL						
Bulktrk	2	No.		Helper					Common	153						
Bulktrk		No.		Driver	JOE			5	Poz. Mix	102						
Bulktrk		No.		Driver				3 or 2	Gel.	9						
JOB SERVICES & REMARKS								CEMENT								
Remarks:								Hulls								
1st Plug 4582'								Salt								
50 sk 60/40 4% GEL								Flowseal 63 II								
DISP w/ mud																
2nd Plug 720'								Handling 264								
50 sk 60/40 4% GEL								Mileage .08 per sk per M.I.C								
DISP w/ H2O																
3rd Plug 240								FLOAT EQUIPMENT								
75 sk 60/40 4% GEL								Guide Shoe								
DISP w/ H2O								Centralizer								
60' 30 sk 60/40 4% GEL								Baskets								
R-h 30 sk 60/40 4% GEL								AFU Inserts								
M-h 20 sk 60/40 4% GEL								Pumptrk Charge PTA								
Thank								Mileage 10								
TODD JOE								Tax								
X Signature Larry S. Salo								Discount								
								Total Charge								

Please call again

Company	Captiva Energy II, Inc.	Lease Name	C. Shrack	
Address	455 Union Blvd. Ste. 208	Lease #	1-15	
CSZ	Lakewood, CO 80228	Legal Desc	See Comments	Job Ticket 2105
Attn.	Derek Patterson	Section	15	Range 13W
		Township	26S	
		County	Pratt	State KS
		Drilling Cont	Sterling Drilling Co. Rig #4	
Comments	Legal Description: 679' FSL & 2190' FEL Field: Frisbie NE			

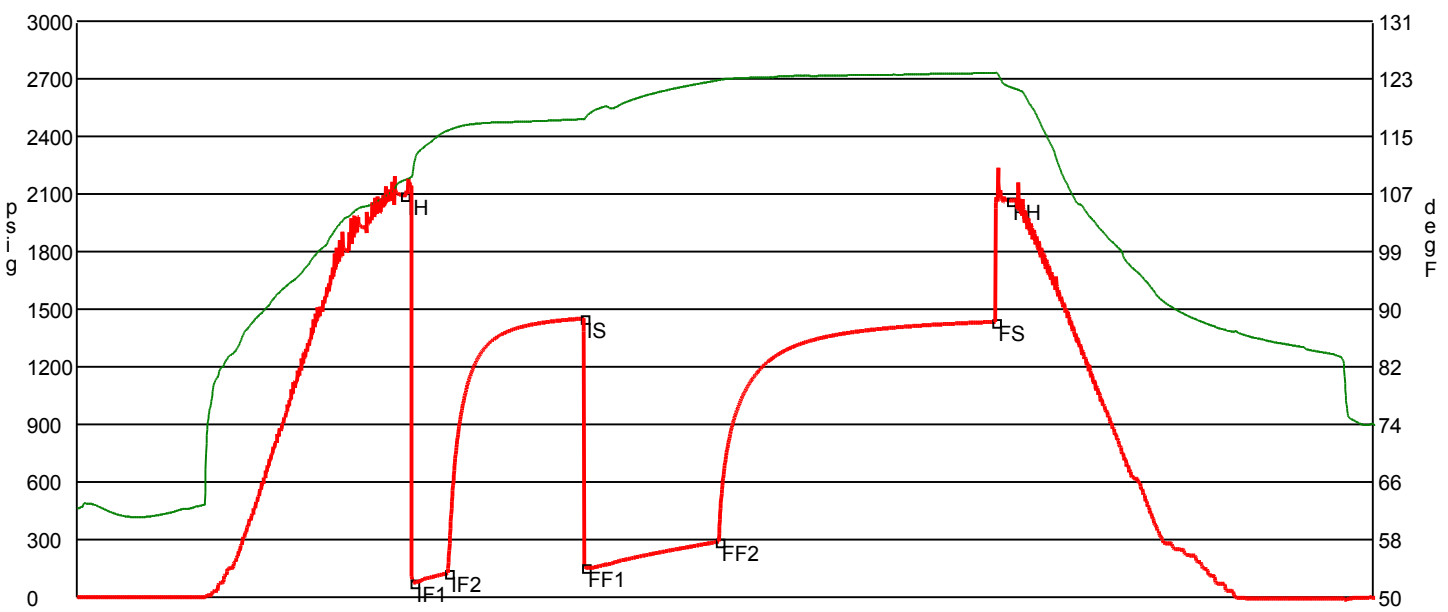
GENERAL INFORMATION

Test # 1	Test Date	5/6/2010	Chokes	3/4	Hole Size	7 7/8
Tester	Tim Venters		Top Recorder #	W1119		
Test Type	Conventional Bottom Hole Successful Test		Mid Recorder #	W1022		
# of Packers	2.0	Packer Size	6 3/4	Bott Recorder #	13564	
Mud Type	Gel Chem		Mileage	20	Approved By	
Mud Weight	9.0	Viscosity	54.0	Standby Time	0	
Filtrate	9.2	Chlorides	4000	Extra Equipmnt	Jars & Safety joint	
Drill Collar Len	218.0		Time on Site	6:30 AM		
Wght Pipe Len	0		Tool Picked Up	9:10 AM		
			Tool Layed Dwn	5:45 PM		
Formation	Mississippian		Elevation	1924.00	Kelley Bushings	1933.00
Interval Top	4352.0	Bottom	4380.0	Start Date/Time	5/6/2010 8:20 AM	
Anchor Len Below	28.0	Between	0	End Date/Time	5/6/2010 5:49 PM	
Total Depth	4380.0					
Blow Type	Fairly strong 2 1/2 inch blow at the start of the initial flow period, building, reaching the bottom of the bucket in 1 1/2 minutes. Fairly strong 2 inch blow at the start of the final flow period, building, reaching the bottom of the bucket in 6 minutes. I had my 2 inch flow valve open about 1/4 inch on both flow periods, and still blew off bottom. Weak surface blow back at the start of the final flow period, building to 1/2 inch. Times: 15, 60, 60, 120.					

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
835	Gas in Pipe	100% 835ft	0% 0ft	0% 0ft	0% 0ft
30	Very slight oil cut mud	0% 0ft	1% 0.3ft	0% 0ft	99% 29.7ft
65	Very slight oil, very slight water cut mud	0% 0ft	10% 6.5ft	3% 2ft	87% 56.6ft
65	Very slight oil, mud cut water	0% 0ft	3% 2ft	67% 43.6ft	30% 19.5ft
505	Very slight mud cut water	0% 0ft	0% 0ft	98% 494.9ft	2% 10.1ft

DST Fluids **79000**



	Date	Time	Pressure	Temp	
IH	5/6/2010 10:42:40 AM	2.377778	2094.494	108.69	Initial Hydro-static
IF1	5/6/2010 10:46:40 AM	2.444444	78.221	110.258	Initial Flow (1)
IF2	5/6/2010 11:01:50 AM	2.697222	128.666	115.672	Initial Flow (2)
IS	5/6/2010 12:01:30 PM	3.691667	1453.321	117.27	Initial Shut-In
FF1	5/6/2010 12:02:10 PM	3.702778	156.747	117.344	Final Flow (1)
FF2	5/6/2010 1:00:50 PM	4.680556	292.297	122.745	Final Flow (2)
FS	5/6/2010 3:02:20 PM	6.705556	1435.829	123.771	Final Shut-In
FH	5/6/2010 3:08:40 PM	6.811111	2069.051	121.798	Final Hydro-static

GAS FLOWS

Min Into IFP Min Into FFP Gas Flows Pressure Choke

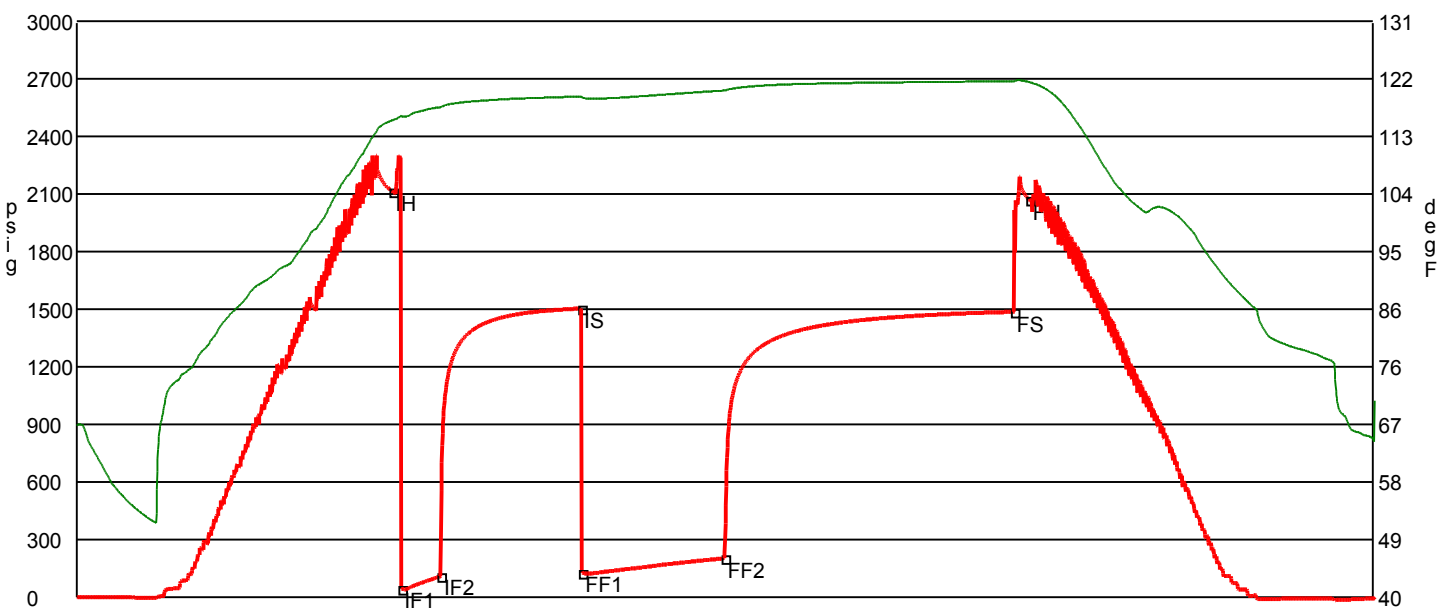
Company	Captiva Energy II, Inc.	Lease Name	C. Shrack	
Address	455 Union Blvd. Ste. 208	Lease #	1-15	
CSZ	Lakewood, CO 80228	Legal Desc	See Comments	Job Ticket 2105
Attn.	Derek Patterson	Section	15	Range 13W
		Township	26S	
		County	Pratt	State KS
		Drilling Cont	Sterling Drilling Co. Rig #4	
Comments	Legal Description: 679' FSL & 2190' FEL Field: Frisbie NE			

GENERAL INFORMATION

Test # 2	Test Date 5/8/2010	Chokes 3/4	Hole Size 7 7/8
Tester Tim Venters		Top Recorder # W1119	
Test Type Straddle		Mid Recorder # W1022	
		Bott Recorder # 13564	
# of Packers 3.0	Packer Size 6 3/4	Mileage 20	Approved By
		Standby Time 0	
Mud Type Gel Chem		Extra Equipmnt Jars, Safety joint, Extra pac. Sm pack.	
Mud Weight 9.1	Viscosity 51.0	Time on Site 3:50 AM	
Filtrate 12.8	Chlorides 6000	Tool Picked Up 6:50 AM	
		Tool Layed Dwn 8:39 AM	
Drill Collar Len 218.0		Elevation 1924.00	Kelley Bushings 1933.00
Wght Pipe Len 0			
Formation Mississippian		Start Date/Time 5/8/2010 6:24 AM	
Interval Top 4406.0	Bottom 4448.0	End Date/Time 5/8/2010 3:27 PM	
Anchor Len Below 42.0	Between 202.0		
Total Depth 4650.0			
Blow Type Weak surface blow at the start of the initial flow period, building to 8 inches. Weak surface blow at the start of the final flow period, building, reaching the bottom of the bucket in 38 minutes. It never did blow water out of the bucket . Very weak surface blow back lasting about 5 minutes. Times: 15, 60, 60, 122.			

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
100	Water cut mud	0% 0ft	0% 0ft	37% 37ft	63% 63ft
190	Mud cut water	0% 0ft	0% 0ft	77% 146.3ft	23% 43.7ft
105	Slight mud cut water	0% 0ft	0% 0ft	89% 93.4ft	11% 11.6ft
20	Mud	0% 0ft	0% 0ft	0% 0ft	100% 20ft
DST Fluids	40000				



	Date	Time	Pressure	Temp	
IH	5/8/2010 8:35:10 AM	2.186111	2115.869	115.396	Initial Hydro-static
IF1	5/8/2010 8:39:00 AM	2.25	45.113	116.001	Initial Flow (1)
IF2	5/8/2010 8:55:30 AM	2.525	111.926	117.461	Initial Flow (2)
IS	5/8/2010 9:54:20 AM	3.505556	1505.271	119.156	Initial Shut-In
FF1	5/8/2010 9:54:50 AM	3.513889	129.655	119.007	Final Flow (1)
FF2	5/8/2010 10:54:30 AM	4.508333	204.725	120.104	Final Flow (2)
FS	5/8/2010 12:56:00 PM	6.533333	1488.083	121.582	Final Shut-In
FH	5/8/2010 1:02:30 PM	6.641667	2070.872	121.412	Final Hydro-static

GAS FLOWS

Min Into IFP Min Into FFP Gas Flows Pressure Choke

MAX-HENRY **OPERATING, LLC**

Scale 1:240 (5"=100') Imperial

Well Name: C. Shrack #1-15
Location: Sec. 15 - T26S - R13W, Pratt County, KS
Licence Number: API #15-151-22352-0000
Spud Date: April 30, 2010
Surface Coordinates: 679' FSL & 2190' FEL (3-D Seismic Loc)

Region: Frisbie Northeast
Drilling Completed: May 7, 2010

Bottom Hole Coordinates:

Ground Elevation (ft): 1924' K.B. Elevation (ft): 1933'
Logged Interval (ft): 2700' To: 4650' Total Depth (ft): 4653' (LTD)
Formation: Arbuckle
Type of Drilling Fluid: Chemical/Polymer

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Captiva Energy, LLC
Address: 445 Union Blvd. Suite 208
Lakewood, CO 80228

GEOLOGIST

Name: Derek W. Patterson
Company: Max-Henry Operating, LLC
Address: 133 N. Glendale
Wichita, KS 67208

REMARKS

After review of the Open Hole Logs, DST Results, and Geological Log, it was agreed upon by all interested parties to plug and abandon the C. Shrack #1-15 as a dry hole.

The drill time and DST intervals were shifted 4' lower/deeper to match electric logs.

Note the RTD was 4650' & LTD was 4653'.

The samples will be delivered, processed and available for review at the KGS Sample Library located in Wichita, Kansas.

Respectfully submitted,

Captiva Energy, LLC

DAILY DRILLING REPORT

Company: Captiva Energy, LLC
455 Union Blvd., Suite 208
Lakewood, CO 80228

Well: C. Shrack #1-15
Location: 679' FSL & 2190' FEL
Sec. 15 - 26S - 13W
Pratt Co., KS

Jim Waechter Cell: 785.623.1525

Operations Manager: Chris Gottschalk 785.623.1524

Wellsite Geologist: Derek W. Patterson
Cell: 316.655.3550
Office: 316.558.5202

Elevation: 1924' GL & 1933' KB
Field: Frisbie Northeast
API#: 15-151-22352-00-00
Surface Casing: 13 3/8" set @ 220.89' KB

Drilling Contractor: Sterling Drilling, Co. Rig #4 620.388.4192 Toolpusher: Lanny Saloga - 620.388.4397

DATE	7:00 AM DEPTH	Last 24 Hour Operations
5/5/2010	4087'	Drilling and connections Topeka, Heebner, Toronto, Douglas, Brown Lime and into Lansing. Geologist Derek W. Patterson on location @ 2145 hrs 5/4/2010. Drilling and connections Lansing. CFS @ 4040 ft (LKC). Resume drilling lower Lansing. DMC: \$2,084.45 CMC: \$10,560.50
5/6/2010	4380'	Drilling and connections lower Lansing, BKC, and into Marmaton. Loss of circulation @ 4206 ft, 1305 hrs 5/5/10. Resume drilling Marmaton 1700 hrs 5/5/10. Drilling and connections Marmaton and into Mississippian. CFS @ 4370 ft (Miss), CFS @ 4380 ft (Miss), shows and gas kick warrant DST. Short trip @ 4380 ft. CTCH. Drop survey, strap out, TOH for DST #1, testing Mississippian. Deviation Survey @ 4380 ft: 1 1/4 deg, Strap: 0.07' short to board. DMC: \$2,612.15 CMC: \$13,172.65
5/7/2010	4544'	TIH with tool for DST #1, conducting DST #1, test successful. Resume drilling Mississippian 2215 hrs 5/6/10. CFS @ 4445 ft (Miss). Resume drilling, drilling and connections Mississippian and into Kinderhook. CFS @ 4512 ft (Kind). Resume drilling Kinderhook, drilling and connections Kinderhook and into Viola. DMC: \$744.00 CMC: \$13,916.65
5/8/2010	RTD - 4650' LTD - 4653'	Drilling and connections Viola, Simpson, and into Simpson Sand. CFS @ 4554 ft (Simp Sand). Resume drilling Simpson Sand, drilling and connections Simpson Sand and into Arbuckle. TD @ 4650 ft, 1705 hrs 5/7/10. CTCH, drop survey, TOH for logging operations. Superior Well Services on location 2030 hrs 5/7/10. Short trip due to pulling tight, CTCH. TOH for logging operations. Logging operations commenced 2315 hrs 5/7/10. Logging operations complete 0515 hrs 5/8/10. Decision to run Straddle Test for DST #2, testing Mississippian. TIH for DST #2. Deviation Survey @ 4650 ft: 3/4 deg. DMC: \$936.30 CMC: \$14,852.95
5/9/2010	RTD - 4650' LTD - 4653'	TIH for DST #2, conducting DST #2, test successful. Orders received to plug and abandon hole 1700 hrs 5/8/10. Geologist Derek W. Patterson off location 1715 hrs 5/8/10.

Captiva Energy, LLC

WELL COMPARISON SHEET

DRILLING WELL					COMPARISON WELL					COMPARISON WELL					COMPARISON WELL				
Captiva Energy - C. Shrack #1-15 679' FSL & 2190' FEL Sec. 15 - 26S - 13W 1933 KB					Captiva Energy - M-G Unit #1 479' FNL & 2420' FWL Sec. 22 - 26S - 13W OIL- Mississippian 1937 KB					Captiva Energy - Shrack Farms Unit #1 596' FSL & 2161' FWL Sec. 15 - 26S - 13W DRY 1944 KB					R & D Petroleum - Griffith #1-C C NW NW Sec. 22 - 26S - 13W DRY 1934 KB				
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log				
							Structural Relationship			Structural Relationship				Structural Relationship					
Topeka	3230	-1297	3231	-1298	3253	-1316	19	18	3236	-1292	-5	-6	3245	-1311	14	13			
King Hill	3345	-1412	3344	-1411	3365	-1428	16	17	3352	-1408	-4	-3	3360	-1426	14	15			
Heebner	3581	-1648	3585	-1652	3608	-1671	23	19	3586	-1642	-6	-10	3590	-1656	8	4			
Toronto	3602	-1669	3602	-1669	3626	-1689	20	20	3603	-1659	-10	-10	3611	-1677	8	8			
Douglas	3615	-1682	3615	-1682	3645	-1708	26	26	3617	-1673	-9	-9	3627	-1693	11	11			
Douglas Sand	3646	-1713	3645	-1712	3672	-1735	22	23	3644	-1700	-13	-12	3657	-1723	10	11			
Brown Lime	3747	-1814	3751	-1818	3776	-1839	25	21	3749	-1805	-9	-13	3763	-1829	15	11			
Lansing	3767	-1834	3771	-1838	3798	-1861	27	23	3768	-1824	-10	-14	3782	-1848	14	10			
Lansing B	3798	-1865	3802	-1869	3829	-1892	27	23	3798	-1854	-11	-15	3812	-1878	13	9			
Lansing H	3928	-1995	3932	-1999	3965	-2028	33	29	3930	-1986	-9	-13	3945	-2011	16	12			
Base Kansas City	4097	-2164	4100	-2167	4132	-2195	31	28	4095	-2151	-13	-16	4109	-2175	11	8			
Marmaton	4108	-2175	4111	-2178	4150	-2213	38	35	4115	-2171	-4	-7	4125	-2191	16	13			
Basal Penn Cong	4350	-2417	4360	-2427	4326	-2389	-28	-38	4214	-2270	-147	-157	4255	-2321	-96	-106			
Mississippian	Not Called In Field		4388	-2455	4353	-2416	N/A	-39	4233	-2289	N/A	-166	4292	-2358	N/A	-97			
Kinderhook	4493	-2560	4496	-2563	4450	-2513	47	50	4265	-2321	-239	-242	4364	-2430	-130	-133			
Viola	4510	-2577	4514	-2581	4471	-2534	43	47	4272	-2328	-249	-253	4368	-2434	-143	-147			
Simpson	4535	-2602	4547	-2614					4380	-2436	-166	-178	4416	-2482	-120	-132			
Simpson Sand	4545	-2612	4549	-2616					4385	-2441	-171	-175	4422	-2488	-124	-128			
Arbuckle	4582	-2649	4577	-2644					4456	-2512	-137	-132							
Total Depth	4650	-2717	4653	-2720	4550	-2613	-104	-107	4646	-2702	-15	-18	4500	-2566	-151	-154			

Please Note: Changed Mississippian top to Basal Penn Conglomerate on geolog, thus changing field top picks from Mississippian to Basal Penn Conglomerate. Did not call second Chert top in field, but did so off of electric log.

NOTE: DST intervals need to be shifted 4' Lower / Deeper on the E-Logs

Company **Captiva Energy II, Inc.**
 Address **455 Union Blvd. Ste. 208**
 CSZ **Lakewood, CO 80228**
 Attn. **Derek Patterson**

Lease Name **C. Shrack**
 Lease # **1-15**
 Legal Desc **See Comments** Job Ticket **2105**
 Section **15** Range **13W**
 Township **26S**
 County **Pratt** State **KS**
 Drilling Cont **Sterling Drilling Co. Rig #4**

Comments **Legal Description: 679' FSL & 2190' FEL**
Field: Frisbie NE

GENERAL INFORMATION

Test #1 **1** Test Date **5/6/2010**
 Tester **Tim Venters**
 Test Type **Conventional Bottom Hole**
Successful Test
 # of Packers **2.0** Packer Size **6 3/4**

Chokes **3/4** Hole Size **7 7/8**
 Top Recorder # **W1119**
 Mid Recorder # **W1022**
 Bott Recorder # **13564**

Mud Type **Gel Chem**
 Mud Weight **9.0** Viscosity **54.0**
 Filtrate **9.2** Chlorides **4000**

Mileage **20** Approved By
 Standby Time **0**
 Extra Equipmnt **Jars & Safety joint**
 Time on Site **6:30 AM**
 Tool Picked Up **9:10 AM**
 Tool Layed Dwn **5:45 PM**

Drill Collar Len **218.0**
 Wght Pipe Len **0**

Elevation **1924.00** Kelley Bushings **1933.00**

Formation **Mississippian**
 Interval Top **4352.0** Bottom **4380.0**
 Anchor Len Below **28.0** Between **0**
 Total Depth **4380.0**

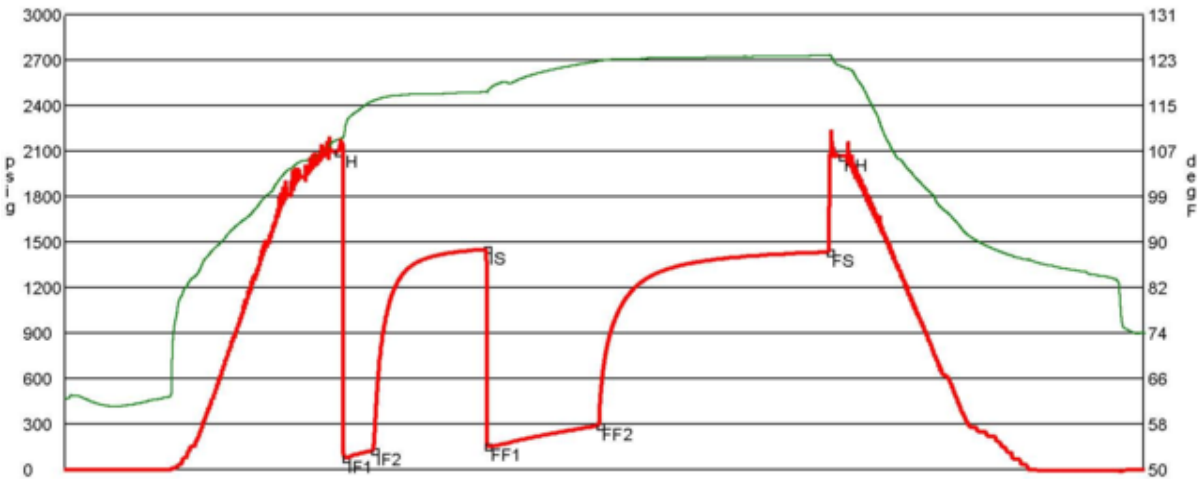
Start Date/Time **5/6/2010 8:20 AM**
 End Date/Time **5/6/2010 5:49 PM**

Blow Type **Fairly strong 2 1/2 inch blow at the start of the initial flow period, building, reaching the bottom of the bucket in 1 1/2 minutes. Fairly strong 2 inch blow at the start of the final flow period, building, reaching the bottom of the bucket in 6 minutes. I had my 2 inch flow valve open about 1/4 inch on both flow pe rods, and still blew off bottom. Weak surface blow back at the start of the final flow period, building to 1/2 inch. Times: 15, 60, 60, 120.**

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
835	Gas in Pipe	100% 835ft	0% 0ft	0% 0ft	0% 0ft
30	Very slight oil cut mud	0% 0ft	1% 0.3ft	0% 0ft	99% 29.7ft
65	Very slight oil, very slight water cut mud	0% 0ft	10% 6.5ft	3% 2ft	87% 56.6ft
65	Very slight oil, mud cut water	0% 0ft	3% 2ft	67% 43.6ft	30% 19.5ft
505	Very slight mud cut water	0% 0ft	0% 0ft	98% 494.9ft	2% 10.1ft

DST Fluids **79000**



	Date	Time	Pressure	Temp		
IH	5/6/2010	10:42:40 AM	2.377778	2094.494	108.69	Initial Hydro-static
IF1	5/6/2010	10:46:40 AM	2.444444	78.221	110.258	Initial Flow (1)
IF2	5/6/2010	11:01:50 AM	2.697222	128.666	115.672	Initial Flow (2)
IS	5/6/2010	12:01:30 PM	3.691667	1453.321	117.27	Initial Shut-In
FF1	5/6/2010	12:02:10 PM	3.702778	156.747	117.344	Final Flow (1)
FF2	5/6/2010	1:00:50 PM	4.680556	292.297	122.745	Final Flow (2)
FS	5/6/2010	3:02:20 PM	6.705556	1435.829	123.771	Final Shut-In
FH	5/6/2010	3:08:40 PM	6.811111	2069.051	121.798	Final Hydro-static

Company **Captiva Energy II, Inc.**
 Address **455 Union Blvd. Ste. 208**
 CSZ **Lakewood, CO 80228**
 Attn. **Derek Patterson**

Lease Name **C. Shrack**
 Lease # **1-15**
 Legal Desc **See Comments** Job Ticket **2105**
 Section **15** Range **13W**
 Township **26S**
 County **Pratt** State **KS**
 Drilling Cont **Sterling Drilling Co. Rig #4**

Comments **Legal Description: 679' FSL & 2190' FEL**
Field: Frisbie NE

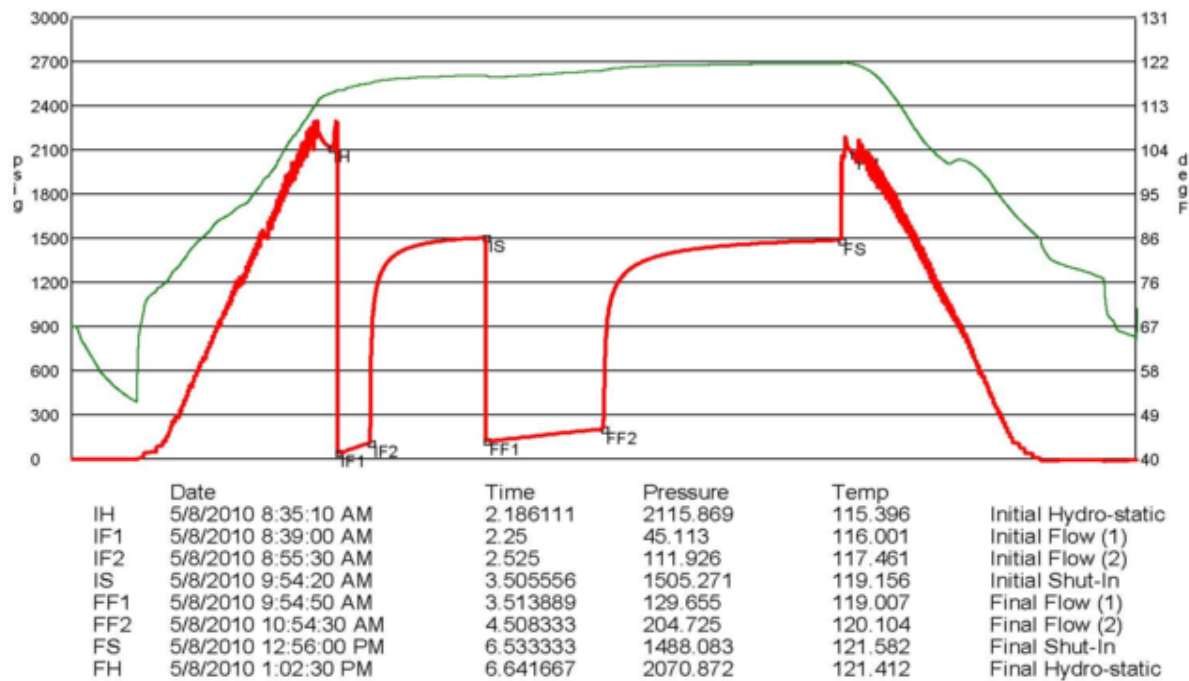
GENERAL INFORMATION

Test # **2** Test Date **5/8/2010** Chokes **3/4** Hole Size **7 7/8**
 Tester **Tim Venters** Top Recorder # **W1119**
 Test Type **Straddle** Mid Recorder # **W1022**
Successful Test Bott Recorder # **13564**
 # of Packers **3.0** Packer Size **6 3/4** Mileage **20** Approved By
 Mud Type **Gel Chem** Standby Time **0**
 Mud Weight **9.1** Viscosity **51.0** Extra Equipmnt **Jars, Safety joint, Extra pac. Sm pack.**
 Filtrate **12.8** Chlorides **6000** Time on Site **3:50 AM**
 Drill Collar Len **218.0** Tool Picked Up **6:50 AM**
 Wght Pipe Len **0** Tool Layed Dwn **8:39 AM**
 Elevation **1924.00** Kelley Bushings **1933.00**
 Formation **Mississippian** Start Date/Time **5/8/2010 6:24 AM**
 Interval Top **4406.0** Bottom **4448.0** End Date/Time **5/8/2010 3:27 PM**
 Anchor Len Below **42.0** Between **202.0**
 Total Depth **4650.0**
 Blow Type **Weak surface blow at the start of the initial flow period, building to 8 inches.**
Weak surface blow at the start of the final flow period, building, reaching th
e bottom of the bucket in 38 minutes. It never did blow water out of the bucket
. Very weak surface blow back lasting about 5 minutes. Times: 15, 60, 60, 122.

RECOVERY

Feet	Description	Gas	Oil	Water	Mud
100	Water cut mud	0% 0ft	0% 0ft	37% 37ft	63% 63ft
190	Mud cut water	0% 0ft	0% 0ft	77% 146.3ft	23% 43.7ft
105	Slight mud cut water	0% 0ft	0% 0ft	89% 93.4ft	11% 11.6ft
20	Mud	0% 0ft	0% 0ft	0% 0ft	100% 20ft

DST Fluids **40000**



ROCK TYPES

LITHOLOGY

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol
	Gyp
	Igne
	Lmst
	Meta
	Mrst
	Salt
	Shale
	Shcol
	Shgy
	Slstst
	Ss
	Till
	Slststn
	Shale
	Sandylms
	Lms
	Gry sh
	Dtd
	Dol
	Carb sh
	pipesymbol

	unknown lith
	Red shale

FOSSIL

	Oomoldic
	Fuss
	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite
	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom

MINERAL

	Silty
--	-------

	Sand
	Dol
	Chlorite
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau
	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil

	Sulphur
	Tuff

STRINGER

	Red shale
	Sh
	Sandylms
	Lms
	Gryslt
	Grysh
	Dol
	Clystn
	Carbsh
	Anhy
	Arg
	Bent
	Coal
	Dol
	Gyp
	Ls
	Mrst
	Slststrg
	Ssstrg

TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln

	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackst

OIL SHOW

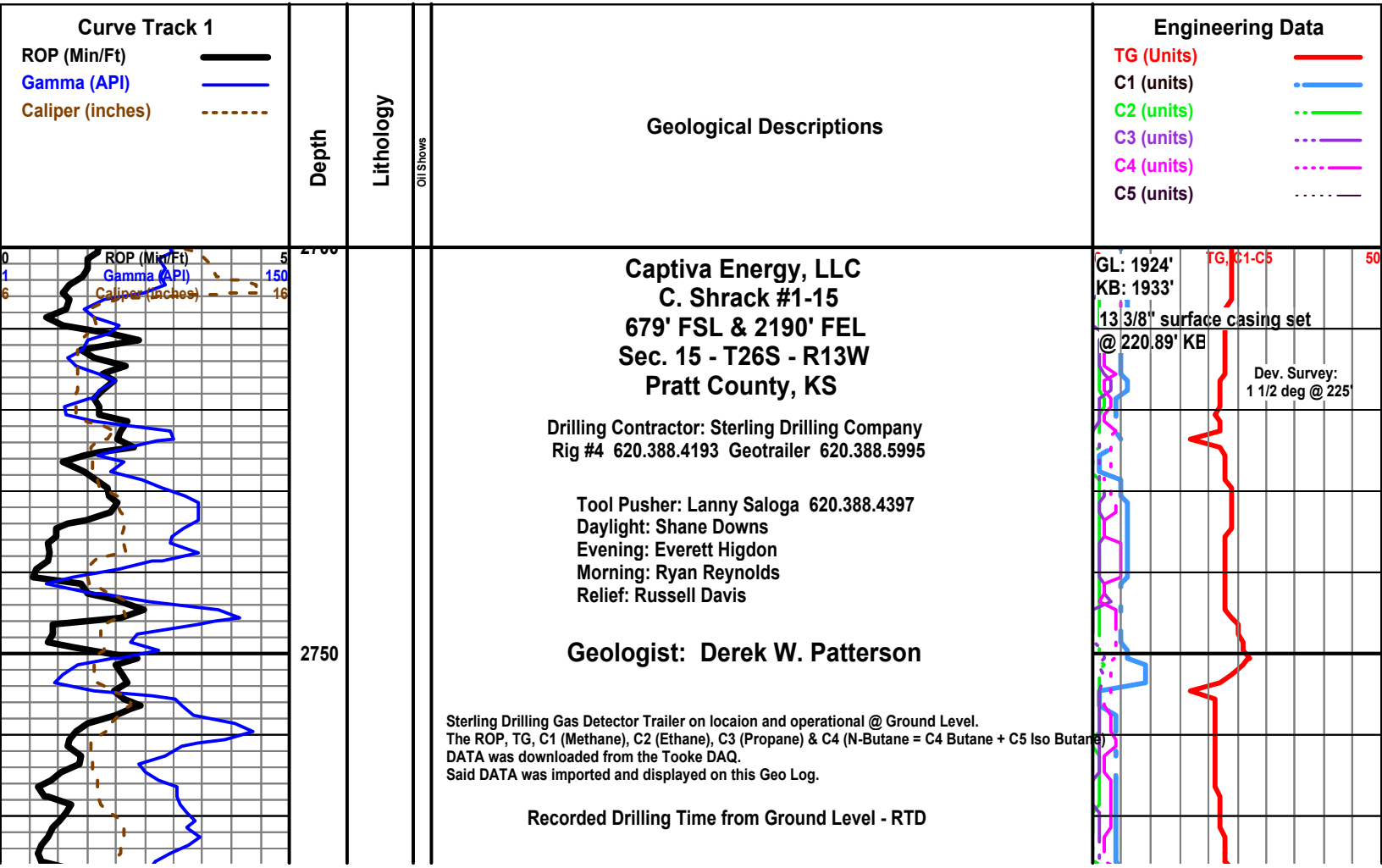
	Gas show
	Good
	Fair
	Poor
	Dead

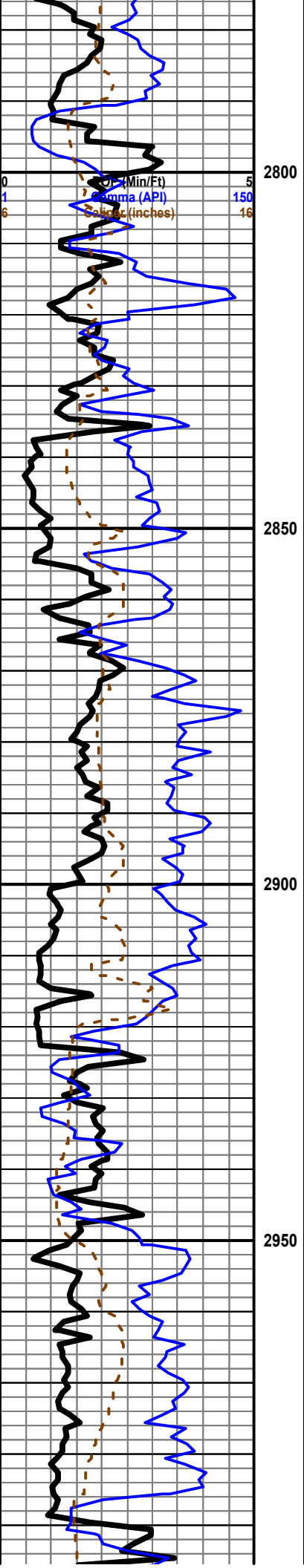
INTERVAL

	Dst
	Core
	Dst
	Straddle test t

EVENT

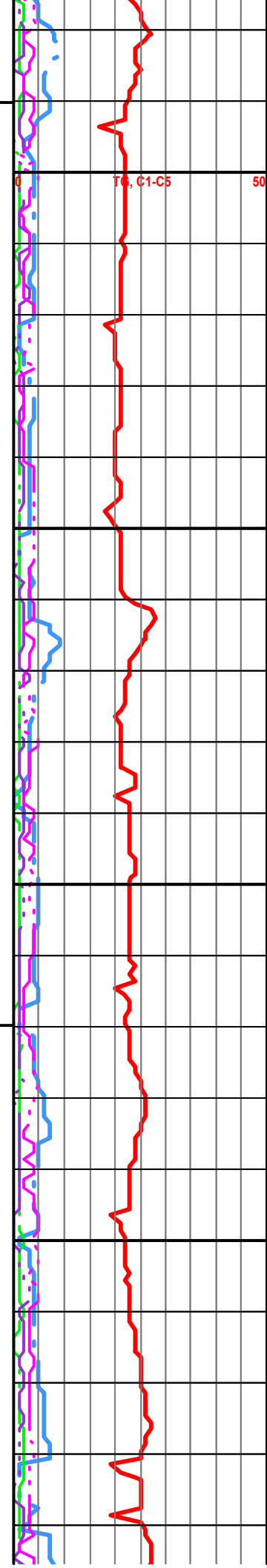
	Rft
	Sidewall
	Dst
	Open hole
	Perforations





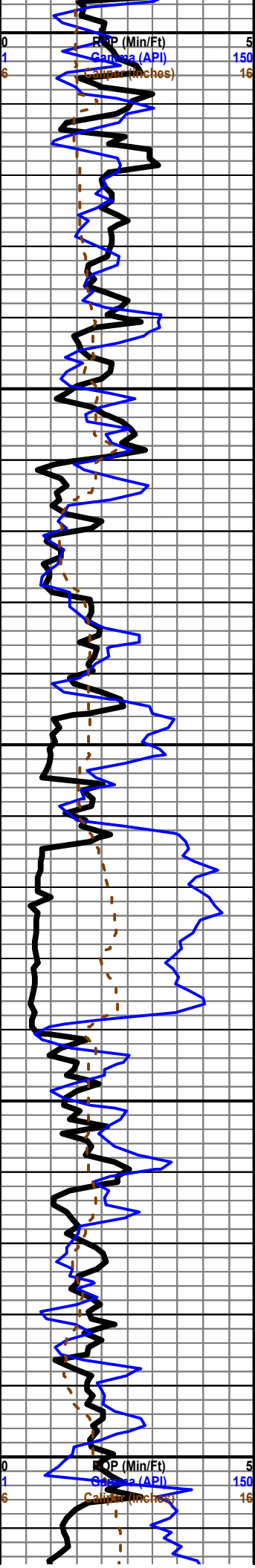
Wabaunsee 2790 (-857)

2800
2850
2900
2950



Stotler 2920 (-987)

2800
2850
2900
2950



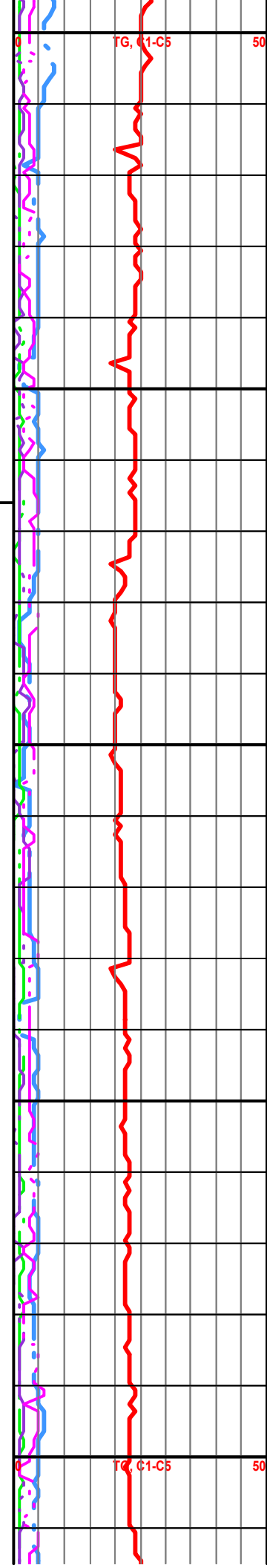
3000
3050
3100
3150
3200

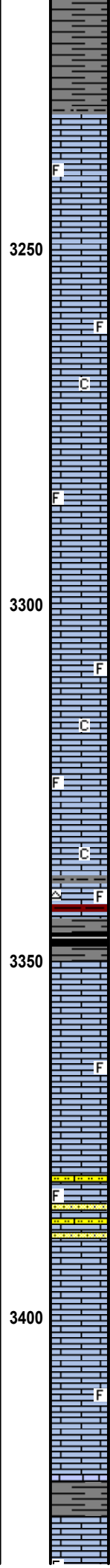
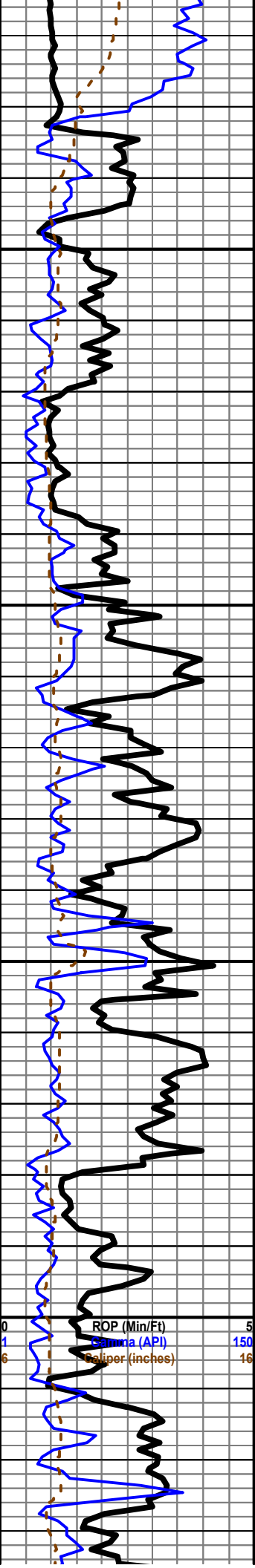
Displaced Mud System @ 3054'

Emporia 3066 (-1133)

Please Note: tops above 3200' picked strictly on drill time and electrical logs.

Start 20' wet & dry samples @ 3200'





Shale: mixed grays, mostly soft round and waxy.

Topeka 3231 (-1298)

Limestone: cream lt gray lt tan, dense, microxn, fossiliferous, poor visible porosity, no shows noted.

3250

Limestone: cream lt tan lt gray, dense to chalky, microxn, fossiliferous, poor visible porosity, no shows noted.

Limestone: lt gray lt cream, dense, microxn-vfxln, fossiliferous, very xln, poor visible porosity, no shows noted.

3300

Limestone: lt cream cream lt gray, dense and slightly chalky, microxn, fossiliferous, few scattered small vugs, overall poor interxn/vuggy porosity, no shows noted.

Limestone: cream lt cream lt gray, dense and chalky, microxn, fossiliferous, poor visible porosity, with trace Chert: white lt gray, fossiliferous, sharp to weathered, no shows noted, and mixed Shale: gray dk gray brick red, mostly blocky and hard.

King Hill Shale 3344 (-1411)

Shale: black, carbonaceous, with Shale: gray dk gray, mostly blocky and hard.

3350

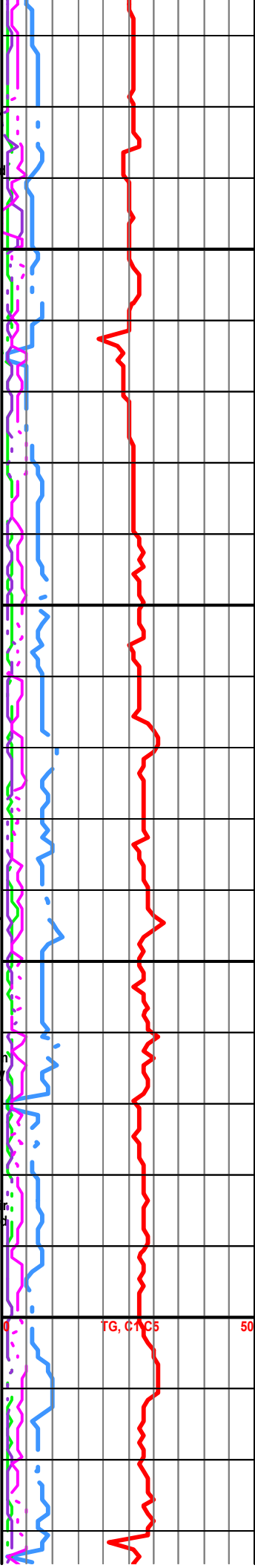
Limestone: lt cream cream, dense, microxn-vfxln, slightly fossiliferous, slightly chalky, poor interxn porosity, no shows noted, with abundant Shale sluff: gray dk gray brick red, round to blocky, mostly hard.

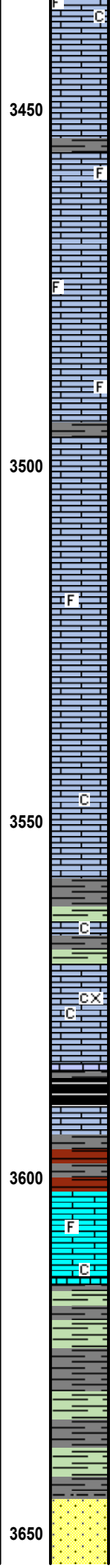
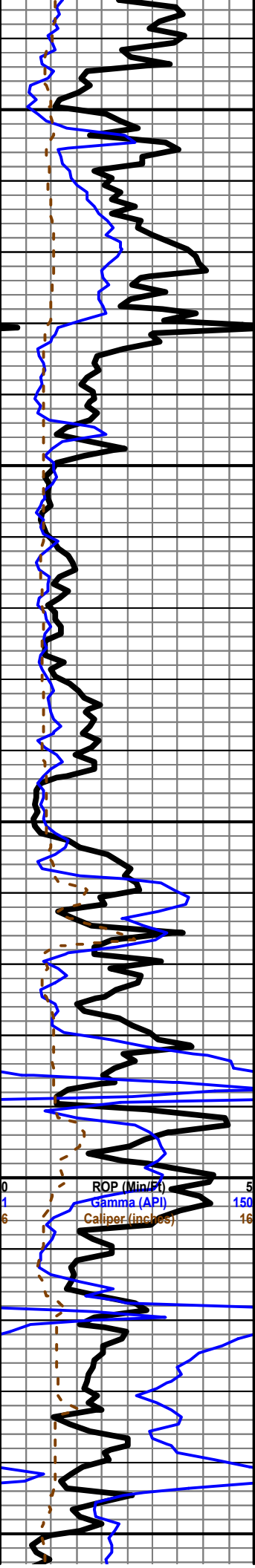
Limestone: cream lt cream, dense, microxn, heavily fossiliferous, fair interfossiliferous porosity, fair amount of 2ndary xln in porosity, no shows noted, with scattered Sandstone and Siltstones: salt and pepper, very fine grained

3400

Limestone: cream lt gray, dense, microxn, fossiliferous, poor interxn porosity, no shows noted.

Limestone: off white lt cream lt gray, dense and chalky, microxn, fossiliferous, poor interxn poros...





no shows noted, with abundant Shale sluff: gray dk gray brick red, round to blocky, mostly ni

3450

Limestone: cream lt cream tan, dense, microxn, fossiliferous, poor visible porosity, no shows noted

Limestone: cream tan lt gray brown, mixed, dense, microxn, fossiliferous, poor visible porosity, no shows noted, with abundant Shale: gray dk gray green, mostly hard and blocky.

3500

Limestone: off white lt cream lt gray, dense and chalky, microxn with some cryptoxn, slightly fossiliferous to barren, poor interxn porosity, no shows noted.

3550

Limestone: off white lt cream lt gray, microxn, mostly barren and very chalky, poor visible porosity no shows noted.

Shale: dk gray green, mostly hard and blocky, with Limestone: lt cream, dense, microxn, mostly barren, very chalky, poor visible porosity, no shows noted.

Limestone: dolomitic, lt brown lt tan, fxn-vfxn, barren, slightly sucrosic, poor interxn porosity, no shows noted, with abundant Chalk in tray.

Heebner 3585 (-1652)

Shale: black, carbonaceous, with Shale: gray dk gray, mostly hard and blocky.
Limestone: lt cream lt gray, chalky, microxn, mostly barren, poor visible porosity, no shows noted.

3600

Shale: gray dk gray brick red, round to blocky, hard to soft.

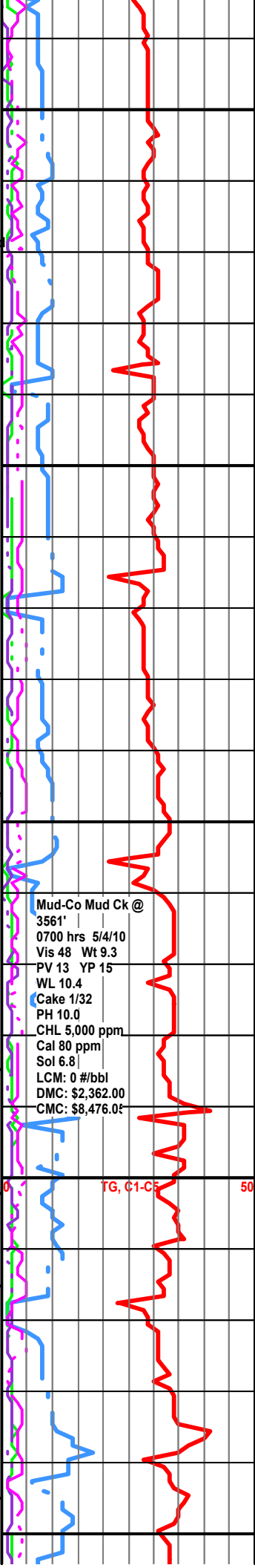
Toronto 3602 (-1669)

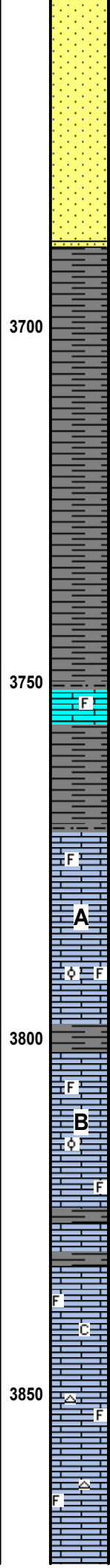
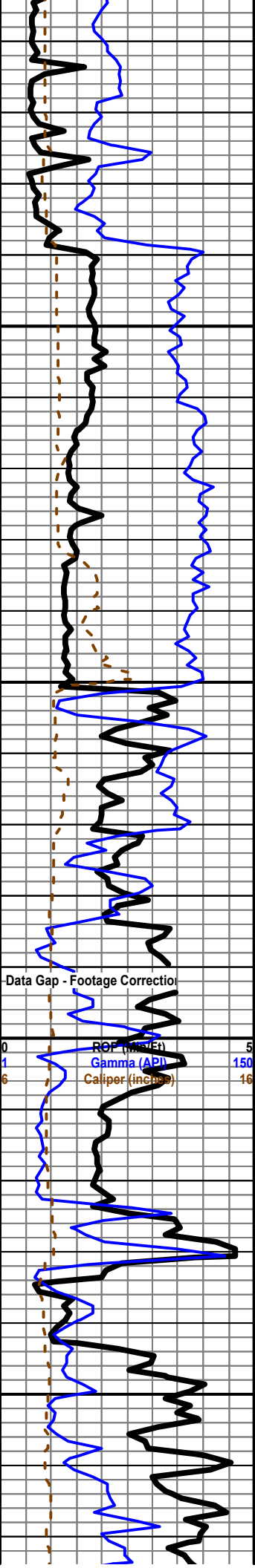
Limestone: lt cream lt gray lt brown, dense, microxn-vfxn, fossiliferous, very chalky, poor interxn porosity, no shows noted

Douglas 3615 (-1682)

Shale: gray olive green dk gray, round to blocky, hard to so

Douglas Sand 3645 (-1712)





Sandstone: gray lt green, fine-vf grained, fairly sorted, round to well rounded, poor visible porosity, mostly dense and well cemented with some friable, micaceous, no shows noted.

3700

Shale: gray dk gray, round to blocky, soft to hard, silty, with abundant Sandstone sluff from above.

Mixed Shale as above: mostly soft and round, with overall decrease in Sandstone sluff.

3750

Brown Lime 3751 (-1818)

Limestone: lt brown lt gray gray, dense, microxn, fossiliferous, slightly cherty, poor interxn porosity, no shows noted

Shale: gray dk gray, round to blocky, soft to hard.

Lansing 3771 (-1838)

Limestone: tan brown gray, dense, microxn, fossiliferous, poor overall visible porosity, no shows noted, with scattered Limestone: gray dk gray, cryptoxn, slightly cherty, barren, poor visible porosity, no shows noted.

Limestone: mixed as above, with trace Limestone: cream, dense, fossiliferous oolitic, poor visible porosity, no shows noted

Data Gap - Footage Correction

Data Gap - Footage Correction

3800

Start 10' wet & dry samples @ 3800'

Limestone: cream lt cream lt gray, dense, microxn, fossiliferous to slightly fossiliferous, some oolitic scattered poor 2ndary xln, trace small vugs, overall poor interxn/vuggy porosity, no shows noted.

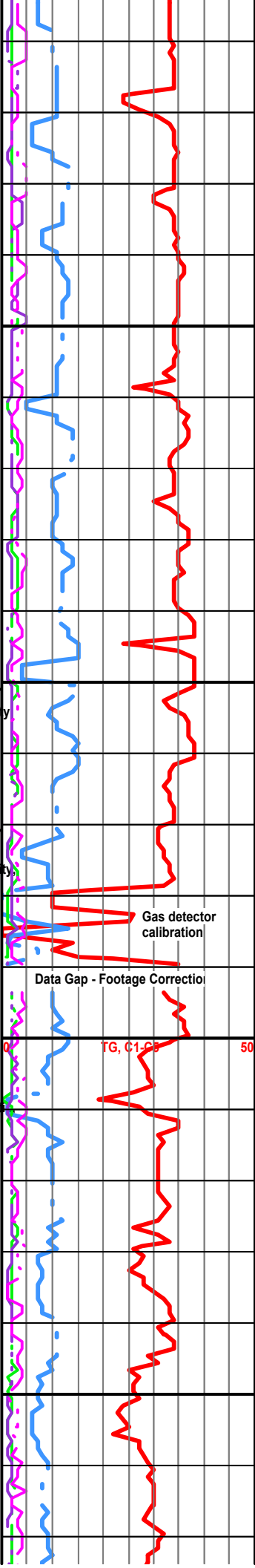
Limestone: cream lt gray, mostly dense, microxn-vfxln, slightly fossiliferous, scattered 2ndary xln, trace small-med vugs, slightly chalky in part, overall poor interxn/vuggy porosity, no shows noted.

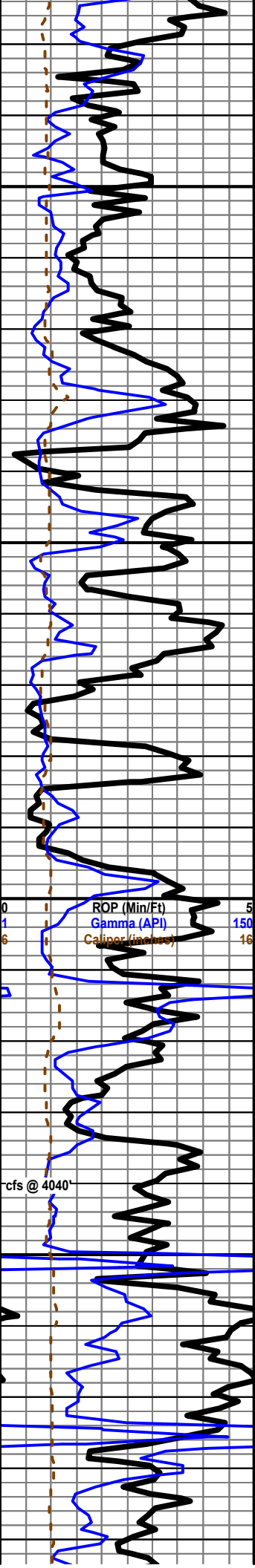
3850

Limestone: as above, with scattered Chert: gray lt gray, barren, sharp, no shows noted.

Limestone: cream lt tan lt brown brown, dense, microxn, fossiliferous, trace 2ndary xln, small scattered vugs, poor interxn/vuggy porosity, no shows noted.

Limestone: brown dk brown. some mottled. dense. microxn. fossiliferous. poor interxn porositv.





3900

3950

4000

4050

4067'

F

C

G=F

C

F

F

H

F

F

C

F

F

F

J

C

F

C

K

F

L

shows noted.

Limestone: gray dk gray dk brown, some mottled, dense, microxn, fossiliferous, chalky to grainy, poor interxn porosity, no shows noted, with Limestone: dk brown, dense, cryptoxn, cherty in part, slightly fossiliferous.

Limestone: off white cream lt gray, microxn, fossiliferous, slightly chalky in part, poor interxn porosity, no shows noted.

Limestone: gray lt gray cream, dense, microxn, cherty, fossiliferous, poor interxn porosity, with Chert: gray lt gray, fossiliferous, sharp, no shows noted.

Geologist Derek W. Patterson on location 2145 hrs, 5/4/10

Limestone: cream lt cream lt gray, microxn, fossiliferous, trace sub-oomoldic, overall poor visible porosity, with scattered Chert: white gray lt gray, fossiliferous, sharp, no shows noted.

Limestone: cream tan, dense, microxn, fossiliferous, poor visible porosity, no shows noted, with Chert as above

Limestone: cream lt cream off white lt gray, dense, microxn, fossiliferous with some oolitic, slightly chalky, scattered lt gray sub-oomoldic to oomoldic, overall poor visible porosity, no shows noted, with trace Chert as above, and scattered Chal

Limestone: cream lt cream, dense, microxn, fossiliferous with some oolitic, chalky, scattered vugs and sub-oomoldic material, poor interxn/oomoldic porosity, no shows noted, with Chert: gray lt gray fossiliferous, sharp, no shows noted, and abundant Chalk.

Limestone: as above with decrease in Chert and Chalk.

Limestone: gray tan lt brown, some mottled, microxn, heavily fossiliferous, grainy texture, scattered poor interclast porosity, no shows noted.

Limestone: lt brown gray brown, microxn, heavily fossiliferous, grainy texture, overall poor visible porosity with poor-fair interclast porosity in few pieces, very poor show golden brown oil droplets upon break in few pieces, no free oil in tray, few gas bubbles, very faint odor in cup, no fluorescence

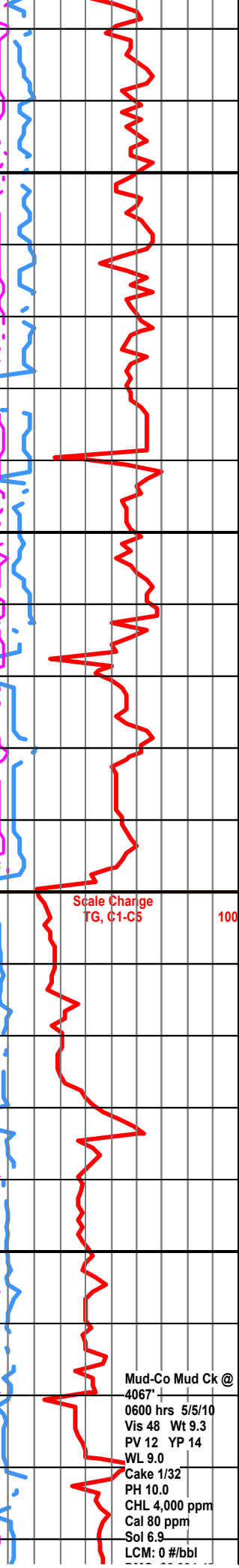
Limestone: off white lt cream lt gray, dense, microxn, fossiliferous, chalky, poor visible porosity, no shows noted, with abundant Chalk in tray.

Shale: black, carbonaceous, with Shale: gray dk gray some green, mostly blocky, soft to hard.

Limestone: cream lt cream lt gray tan, dense, microxn, fossiliferous, poor interxn porosity, no shows noted, with mixed Shales as above, abundant Chalk in tray, and Chert: lt gray cream tan, slightly fossiliferous, sharp

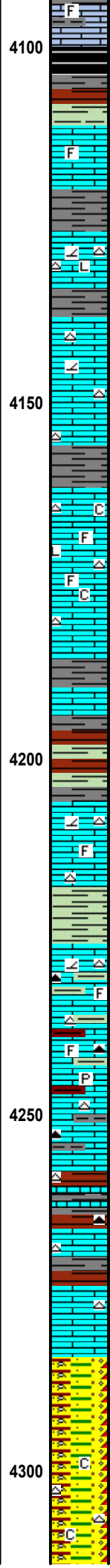
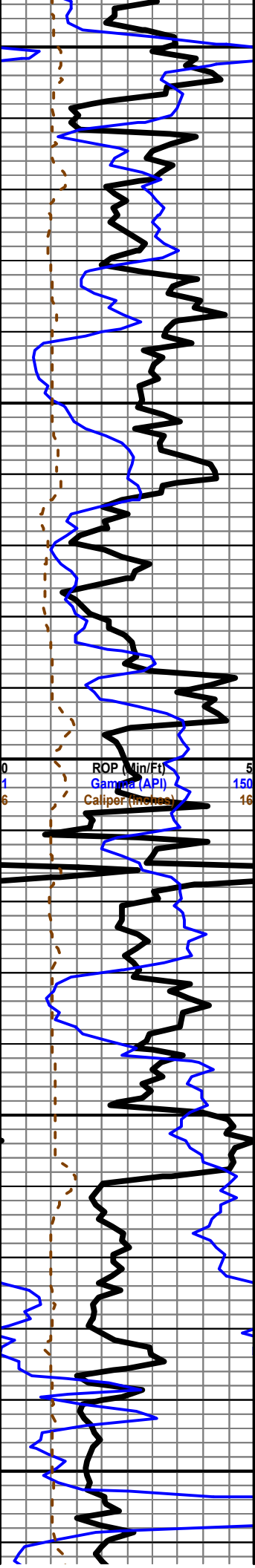
Shale: black, carbonaceous, with Shale: gray dk gray some green, mostly blocky, soft to hard.

Limestone (mixed): off white cream lt cream, dense, microxn, fossiliferous, poor interxn porosity, no shows noted, with Limestone: brown lt brown, dense and cherty, heavily fossiliferous-oolitic, poor interxn porosity, no shows noted, and mixed Shales: gray dk gray black green, mostly blocky, soft to hard



Scale Change
TG, C1-C5

Mud-Co Mud Ck @
4067'
0600 hrs 5/5/10
Vis 48 Wt 9.3
PV 12 YP 14
WL 9.0
Cake 1/32
PH 10.0
CHL 4,000 ppm
Cal 80 ppm
Sol 6.9
LCM: 0 #/bbl



Base Kansas City 4100 (-2167)
Shale: black, carbonaceous, with Shale: gray dk gray brick red green, mostly blocky, soft to hard, some silty.

Marmaton 4111 (-2178)
Limestone: It gray It cream tan, dense, microxln, slightly fossiliferous and chalky in part, poor inter porosity, very slight show light brown oil sheen in few pieces upon break, no other shows or odor noted, no fluorescence.

Limestone: slightly dolomitic, It gray off white, slightly friable, microxln, mostly barren lithographic, some slightly cherty, poor visible porosity, scattered poor asphaltic staining in few pieces, no show free oil or odor, no fluorescence, with scattered Chert: gray off white, fossiliferous in part, very slight staining, no shows noted.

Limestone: slightly dolomitic, off white It cream It gray, friable, microxln, mostly barren, poor inter porosity, no show free oil or odor, faint golden brown staining in few pieces along with some scattered asphaltic staining, no fluorescence, with Chert: orange yellow off white gray, sharp and fresh with some rounded and weathered, poor-fair golden brown staining in gray/white pieces along with some black dead oil staining, no show free oil.

Shale: mixed grays brick red green, round to blocky, soft to hard, some sil

Limestone: cream It cream It gray, microxln, lithographic to fossiliferous, chalky with some scattered cherty, poor interxln porosity, no show free oil or odor, scattered dead black staining with trace golden brown staining, with Chert: off white cream gray, weathered, scattered brown staining, no show free oil, very faint gassy odor in cup, no fluorescence or cut fluorescence.

Limestone and Chert as above, with increase in golden brown staining in Limestone, no show free very faint gassy odor in cup, no fluorescence or cut fluorescence.

Shale: mixed grays green brick red, mostly blocky, soft to hard.

Limestone: cream tan It gray, dense, some slightly dolomitic, mostly microxln, scattered fossiliferous, poor interxln porosity, scattered dark brown-black dead staining and slight golden brown staining in few pieces, no show free oil, with Chert: It brown tan cream, slightly tripolitic to weathered, some black dead staining and trace golden brown staining, no show free oil or odor, no fluorescence or cut fluorescence.

Shale: green gray red maroon purple, round to blocky, soft to hard, some pyritic, some silty, scattered argillaceous.

Limestone and Chert as above, with influx Chert: orange yellow cream, round to sharp, mostly barren, no show free oil or odor, still carrying abundant Shale from above.

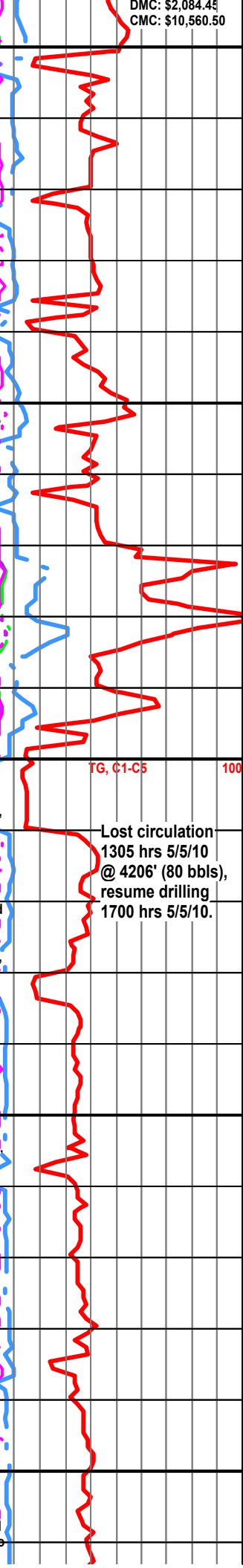
Limestone: off white cream It cream tan, dense to chalky, microxln, fossiliferous in part, poor interxln porosity, no shows noted, with mixed Chert as above, mostly fresh and sharp, overall decrease in Chert with staining, still carrying abundant Shale: brick red brown gray, mostly blocky and hard, and scattered Pyrite nodules in tray.

Limestone: off white It cream, dense and chalky, fossiliferous, poor interxln porosity, no shows noted with scattered Chert as above, and abundant Shale as above.

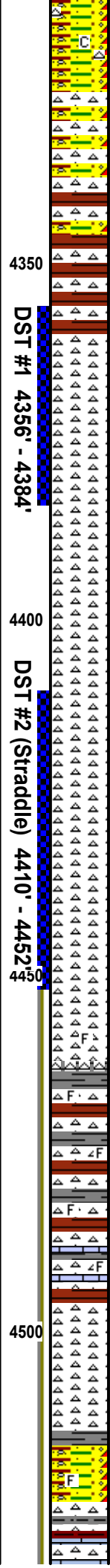
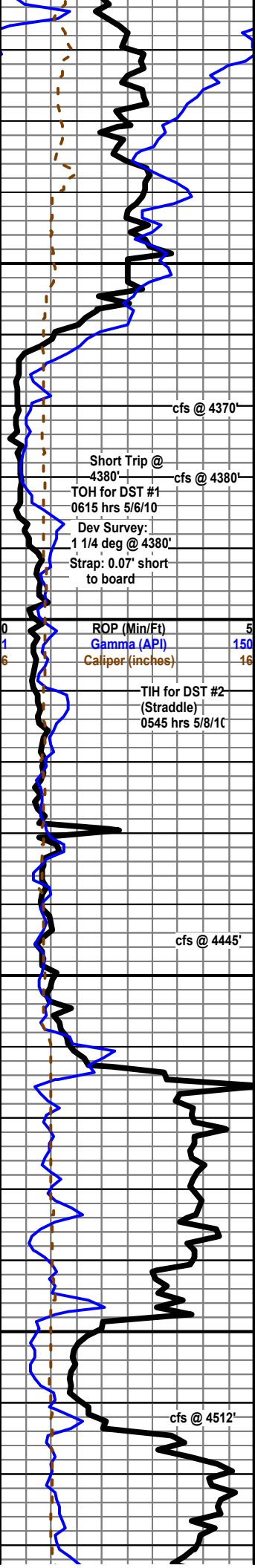
Mixed Limestone and Chert as above with abundant mixed Shale: rust red brown gray, mostly blocky and hard, no shows noted

Conglomerate: mixed Limestone: gray It cream cream, dense, microxln, fossiliferous in part, slightly chalky, poor visible porosity, with Shale: gray green rust red purple, mostly blocky and hard, and overall decrease in Chert from above, sample washes red/brown.

Conglomerate: mixed Limestone: It cream cream, dense, microxln-vfxln, some pieces very xln, overall poor interxln porosity, no shows noted, with Shale: mixed grays rust red brown purple green, rounded blocky, loose Calcite crystals in tray, scattered Chalk, and a few pieces of Chert: tan cream, opa



Lost circulation
1305 hrs 5/5/10
@ 4206' (80 bbls),
resume drilling
1700 hrs 5/5/10.



fresh, sharp, sample washes red/brown.

Conglomerate as above mixed with influx Chert: gray, barren, fresh, sharp, earthy breaks fairly easy no shows noted, sample washes red.

Conglomerate and Chert as above, with majority of sample being mixed red gray Shale and gray lit gray Chert as above, no shows noted, sample washes red.

Basal Penn Conglomerate 4360 (-2427)

4370' cfs 30" - Chert: lit gray off white as above, with trace Chert: cream lit cream off white, tripolitic, fair-good tripolitic porosity, very faint oil sheen over sample, no other shows or odor to note, no fl.

4370' cfs 60"/90" - Chert: white cream lit cream, most of sample tripolitic, good tripolitic porosity, breaks fairly easily, streaming golden brown free oil and gas bubbles, good-excellent inc in oil and gas upon break, scat golden brn sat stain, some pieces have a black sat tarry stain in porosity, fair-good odor, even bright grn-yellow fl, still carrying Chert and abundant Conglomerate from above

4380' cfs 30"/60" - Chert: as above w/ inc porosity and overall inc in free oil both in tray and bleeding from porosity, inc in pieces showing black sat stain, these pieces heavily bleeding brown oil from porosity with good-excellent inc upon break/under lamp, good-strong odor in cup, even bright grn-yellow fl.

Mississippian 4388 (-2455)
Resume Drilling 2215 hrs 5/6/10

Chert: white off white lit cream, mostly tripolitic, good tripolitic porosity, fair show golden brown oil streaming from porosity, fair-good increase upon break in some pieces, scattered golden brown saturated stain, some pieces with black saturated stain but overall decrease in such from above as well as overall decrease in shows from above, poor faint odor in cup, bright greenish yellow fluorescence.

4445' cfs 30" - Chert: as above grading to Chert: bony white yellowish, dense, fresh, sharp, slightly fossiliferous in part, poor visible porosity, slight golden oil sheen over sample, no other shows noted, dull yellowish fluorescence (may be mineral), overall decrease in shows and tripolitic material.

4445' cfs 60" - Chert: bone white off white pale green, dense, mostly sharp and fresh, some very slightly tripolitic and weathered, trace small vugs, fair-poor tripolitic/vuggy porosity, slight show in tripolitic/weathered pieces upon break, no fluorescence, with scattered Chert: white cream, tripolitic, good tripolitic porosity, fair-good show free oil in porosity with good increase on break, resembles that at top of section and may just be sluff, bright yellow fl, very faint odor in cup.

Chert: mixed - bone white off white pale green yellow pink, dense, some sharp fresh and vitreous, some rounded and slightly weathered, scattered fossiliferous, overall poor visible porosity, no shows noted.

Chert: mixed - bone white off white pale green gray yellow pink red lit brown, dense, mostly sharp and fresh, scattered vitreous, trace slightly weathered, scattered fossiliferous, poor visible porosity, no shows noted, with Shale: rust red maroon brown grays, mostly blocky, soft to hard.

Mixed Chert and Shale as above, no shows noted.

Mixed Chert and Shale as above, with few pieces of INTERBEDDED Limestone: gray brown, dense, microxn, fossiliferous, poor visible porosity, no shows noted in sample.

Kinderhook 4496 (-2563)

4512' cfs 30"/45" - Chert: mixed as above with most bone white off white smokey gray pale green tan dense, sharp and fresh, some opaque, scattered subfossiliferous to fossiliferous, poor visible porosity, no shows noted, still carrying abundant mixed Shale as above.

Viola 4514 (-2581)

Conglomerate: mixed Chert: off white boney white cream tan smokey gray pink-red, mostly sharp and fresh, some opaque, scattered subfossiliferous, poor visible porosity, with mixed Shale: rust red brown grays, round to blocky, mostly hard, and few pieces of Limestone: gray tan, dense, microxin-cryptoxln, slightly fossiliferous, poor visible porosity, no shows noted in sample.

