



KANSAS CORPORATION COMMISSION 1086764
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4058
Name: American Warrior, Inc.
Address 1: 3118 Cummings Rd
Address 2: PO BOX 399
City: GARDEN CITY State: KS Zip: 67846 + _____
Contact Person: Joe Smith
Phone: (620) 275-2963
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Keith Reavis
Purchaser: None

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
 Conv. to GSW
 Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

06/11/2012	06/19/2012	06/20/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-057-20812-00-00

Spot Description: _____
SE NW NW Sec. 24 Twp. 27 S. R. 22 East West
335 Feet from North / South Line of Section
400 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Ford

Lease Name: Herman Well #: 2-24

Field Name: _____

Producing Formation: None

Elevation: Ground: 2409 Kelly Bushing: 2420

Total Depth: 5047 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 273 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: 14000 ppm Fluid volume: 60 bbls

Dewatering method used: Evaporated

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

- Letter of Confidentiality Received
Date: _____
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: Deanna Garcia Date: 07/09/2012



1086764

Operator Name: American Warrior, Inc. Lease Name: Herman Well #: 2-24
 Sec. 24 Twp. 27 S. R. 22 East West County: Ford

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum Attached Attached Attached
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CASING RECORD <input checked="" 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
Surface	12.250	8.625	24	273	Class A	200	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

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 checked="" 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 (Explain) _____				
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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Herman 2-24
Doc ID	1086764

Tops

Name	Top	Datum
Heebner	4177'	-1757
Lansing	4310'	-1890
Stark	4619'	-2199
B/KC	4697'	-2277
Marmaton	4751'	-2331
Cherokee	4879	-2459
Mississippian	4988'	-2568
Warsaw	5027'	-2607

ALLIED OIL & GAS SERVICES, LLC KB 052452

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Liberal KS

DATE <u>6-11-12</u>	SEC <u>24</u>	TWP <u>27</u>	RANGE <u>22</u>	CALLED OUT	ON LOCATION	JOB START <u>4:00pm</u>	JOB FINISH <u>5:00pm</u>
LEASE <u>Herman</u>		WELL # <u>2-24</u>	LOCATION <u>North of Ford KS</u>		COUNTY <u>Ford</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Duke drilling Co rig #10
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 hole T.D. 280
 CASING SIZE 8 5/8 24 DEPTH 262.03
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 44 FT
 CEMENT LEFT IN CSG. 44 FT
 PERFS. _____
 DISPLACEMENT 13.88 bbl

OWNER _____
 CEMENT AMOUNT ORDERED 200SK class A
31CL 27 gel

EQUIPMENT

PUMP TRUCK CEMENTER Jose Gonzalez
 # 549550 HELPER Lenny B.
 BULK TRUCK DRIVER Daniel P.
 # 470-528
 BULK TRUCK DRIVER _____
 # _____

COMMON	<u>200</u>	@	<u>16.25</u>	<u>3250.00</u>
POZMIX		@		
GEL	<u>4</u>	@	<u>21.25</u>	<u>85.00</u>
CHLORIDE	<u>7</u>	@	<u>58.20</u>	<u>407.40</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>211</u>	@	<u>2.25</u>	<u>474.75</u>
MILEAGE	<u>52 X mil. X 11</u>			<u>1160.50</u>
				TOTAL <u>5372.65</u>

REMARKS:

Thank you!!

SERVICE

DEPTH OF JOB	<u>280</u>
PUMP TRUCK CHARGE	<u>1125.00</u>
EXTRA FOOTAGE	@ _____
MILEAGE <u>Heavy</u>	<u>50</u> @ <u>7.00</u> <u>350.00</u>
MANIFOLD <u>thead</u>	@ <u>200.00</u> <u>200.00</u>
<u>light</u>	<u>50</u> @ <u>4.00</u> <u>200.00</u>
	@ _____

CHARGE TO: America Warriors Inc
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 1875.00

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PLUG & FLOAT EQUIPMENT

<u>All 8 5/8</u>			
<u>Baffle plate</u>	@	<u>112.00</u>	<u>112.00</u>
	@		
<u>rubber plug</u>	<u>1</u>	@	<u>112.00</u> <u>112.00</u>
	@		
	@		
TOTAL <u>\$ 224.00</u>			

PRINTED NAME SCOTT EDWARDS
 SIGNATURE Scott Edwards

SALES TAX (If Any) _____
 TOTAL CHARGES 7476.65
 DISCOUNT 20% IF PAID IN 30 DAYS
\$ 5981.32

ALLIED OIL & GAS SERVICES, LLC KB 053453

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Lipral ks

DATE <u>6/25/12</u>	SEC <u>24</u>	TWP <u>27S</u>	RANGE <u>22W</u>	CALLED OUT <u>12:00 AM</u>	ON LOCATION <u>3:00 AM</u>	JOB START <u>7:00 AM</u>	JOB FINISH <u>7:30 AM</u>
LEASE <u>Herman</u>		WELL # <u>7-24</u>		FOR A TO LOCATION		COUNTY <u>Ford</u>	STATE <u>KS</u>
OLD OR (NEW) (Circle one)							

CONTRACTOR Duke #10

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 1570

CASING SIZE 8 5/8 DEPTH 262'

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH 1570

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER American Warrior

CEMENT AMOUNT ORDERED 2505 kgs, class A 60/40
822 + 438 = 1260 Floreal

EQUIPMENT

PUMP TRUCK CEMENTER David Mathis Ruben Chavez

549-550 HELPER Leahy Baeza

BULK TRUCK # 457-251 DRIVER Rubén Chavez

BULK TRUCK # _____ DRIVER _____

COMMON	@	_____	_____
POZMIX	@	_____	_____
GEL	@	_____	_____
CHLORIDE	@	_____	_____
ASC	@	_____	_____
<u>ALC 250</u>	@	<u>14.50</u>	<u>3625.00</u>
<u>Floreal 62</u>	@	<u>2.70</u>	<u>167.90</u>
HANDLING <u>250 kgs</u>	@	<u>2.25</u>	<u>562.50</u>
MILEAGE <u>822 = 12500 e. 11</u>	@		<u>137.500</u>
TOTAL			<u>5729.90</u>

REMARKS:

1570' 50 kgs

730' 80 kgs

300' 50 kgs

60' 20 kgs

Bot hole 30 kgs

mouse hole 20 kgs

Total 250 kgs

Thank you

SERVICE

DEPTH OF JOB <u>1570'</u>	_____	_____	
PUMP TRUCK CHARGE <u>Plugging</u>	<u>1750.00</u>	_____	
EXTRA FOOTAGE	@	_____	
MILEAGE <u>Heavy 100</u>	@ <u>2.00</u>	<u>200.00</u>	
MANIFOLD <u>light poly 100</u>	@ <u>4.00</u>	<u>400.00</u>	
TOTAL			<u>2350.00</u>

CHARGE TO: American Warrior

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____	@	_____	_____
_____	@	_____	_____
_____	@	_____	_____
_____	@	_____	_____
_____	@	_____	_____
TOTAL			_____

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____

TOTAL CHARGES 8079.90

DISCOUNT 6463.92 IF PAID IN 30 DAYS

PRINTED NAME Everett Nigdon

SIGNATURE Everett Nigdon

OPERATOR

Company: American Warrior, Inc.
 Address: 3118 Cummings Road
 P.O. Box 399
 Garden City, KS 67846

Contact Geologist: Kevin Wiles
 Contact Phone Nbr: 620-275-2963
 Well Name: Herman # 2-24
 Location: Sec 24 - T27S - R22W
 Pool:
 State: Kansas

API: 15-057-20812-00-00
 Field: Konda Southeast
 Country: USA

Scale 1:240 Imperial

Well Name: Herman # 2-24
 Surface Location: Sec 24 - T27S - R22W
 Bottom Location:
 API: 15-057-20812-00-00
 License Number: 4058
 Spud Date: 6/11/2012 Time: 12:00 AM
 Region: Ford County
 Drilling Completed: 6/19/2012 Time: 3:50 PM
 Surface Coordinates: 335' FNL & 400' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2409.00ft
 K.B. Elevation: 2420.00ft
 Logged Interval: 4000.00ft To: 5047.00ft
 Total Depth: 5047.00ft
 Formation: Mississippian
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 N/S Co-ord: 335' FNL
 E/W Co-ord: 400' FWL
 Latitude:

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: Geologist Name: Ted Pfau

CONTRACTOR

Contractor: Duke Drilling Co., Inc.
 Rig #: 10
 Rig Type: mud rotary
 Spud Date: 6/11/2012 Time: 12:00 AM
 TD Date: 6/19/2012 Time: 3:50 PM
 Rig Release: Time:

ELEVATIONS

K.B. Elevation: 2420.00ft Ground Elevation: 2409.00ft
 K.B. to Ground: 11.00ft

NOTES

Due to the poor shows in samples and poor results from DST #1, it was decided by all parties to refrain from running electric logs and plug and abandon the well.

An analog gas detector operated by MBC Well Logging was employed on this well. This was switched to a TookeDAQ gas detector during DST #1

gas detector during DST #1.

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

Respectfully submitted,
Ted Pfau

DDR

American Warrior, Inc.

daily drilling report

DATE	7:00 AM DEPTH	REMARKS
06/17/2012	4482	Geologist Ted Pfau on location @ 1445 hrs, 3940 ft., drilling ahead Heebner, Douglas, drilling Lansing
06/18/2012	4935	drilling ahead through Lansing, Stark, BKC, Marmaton, Cherokee
06/19/2012	5040	drilled through Cherokee and Mississippian, CFS at 5010, 5030, 5035, 5040, Short trip and TOH for DST #1 at 5040 Finished DST #1 at 1026 hrs 6/19, TIH, resume drilling, cfs at 5047 TD at 5047, geologist released 1755 hrs

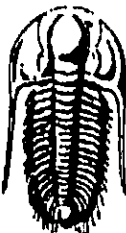
WCS

American Warrior, Inc.

well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Herman 2-24 335' FNL & 400' FWL Sec 24 T27S R22W					Am. Warrior - Linlor A6 425' FSL & 2300' FEL Sec 14 T27S R22W				Am. Warrior - Herman 1-24 1044' FNL & 354' FWL Sec 24 T27S R22W			
2420 KB					2421 KB		Structural Relationship		2418 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	4177	-1757	No		4169	-1748	-9		4176	-1758	1	
Douglas	4205	-1785	e-logs		4204	-1783	-2		4211	-1793	8	
Lansing	4310	-1890	run		4305	-1884	-6		4309	-1891	1	
Stark Shale	4619	-2199			4615	-2194	-5		4614	-2196	-3	
Base KC	4697	-2277			4695	-2274	-3		4696	-2278	1	
Marmaton	4751	-2331			4747	-2326	-5		4753	-2335	4	
Cherokee	4879	-2459			4868	-2447	-12		4876	-2458	-1	
Mississippian	4988	-2568			4990	-2569	1		4981	-2563	-5	
Warsaw Por.	5027	-2607			5026	-2605	-2		5023	-2605	-2	
Total Depth	5047	-2627			5132	-2711	84		5174	-2756	129	

DST #1

DRILL STEM TEST REPORT	
 <p>TRILOBITE TESTING, INC.</p>	<p>American Warrior INC 24-27s-22w</p> <p>Po Box 399 Herman #2-24 Gardencity KS 67846</p> <p>ATTN: Cecil Obrate/ Ted Pf Job Ticket: 47557 DST#:1</p> <p style="text-align: right;">Test Start: 2012.06.18 @ 23:28:00</p>

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 06:02:45
 Time Test Ended: 10:12:15

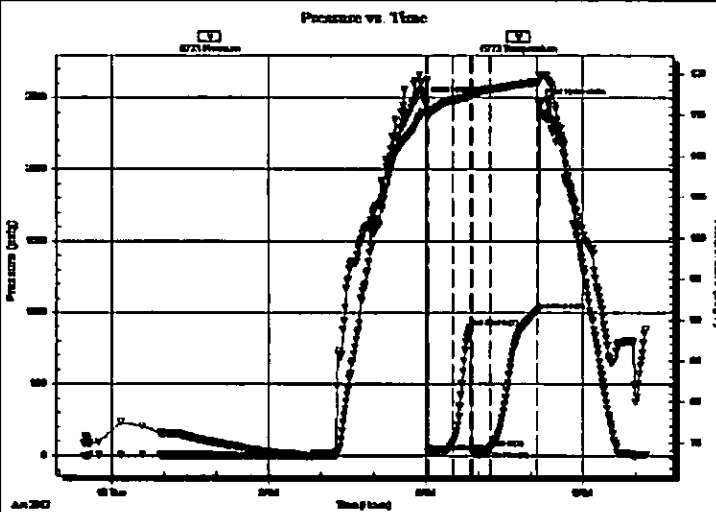
Test Type: Conventional Bottom Hole (Initial)
 Tester: Chris Staats
 Unit No: #47

Interval: 5010.00 ft (KB) To 5040.00 ft (KB) (TVD)
 Total Depth: 5040.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2420.00 ft (KB)
 2409.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6773 Outside
 Press@RunDepth: 55.98 psig @ 5011.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.18 End Date: 2012.06.19 Last Calib.: 2012.06.19
 Start Time: 23:28:05 End Time: 10:12:15 Time On Btrc: 2012.06.19 @ 05:59:00
 Time Off Btrc: 2012.06.19 @ 08:10:00

TEST COMMENT: F: Weak blow 2"
 IS: No blow back
 FF: Weak blow 2 1/2"
 FS: No blow back



PRESSURE SUMMARY			
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2475.81	115.37	Initial Hydro-static
4	24.32	114.90	Open To Flow (1)
32	79.50	116.80	Shut-In(1)
52	894.04	117.23	End Shut-In(1)
54	31.26	117.66	Open To Flow (2)
76	55.98	118.10	Shut-In(2)
129	1015.89	118.96	End Shut-In(2)
131	2462.35	119.88	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (tbi)
0.00	90' GP	0.00
35.00	O,G,M 3%gas 5% oil 92%mud	0.49

Gas Rates			
	Choke (Inches)	Pressure (psig)	Gas Rate (Mct/d)

Trilobite Testing, Inc

Ref. No: 47557

Printed: 2012.06.19 @ 11:03:56

ROCK TYPES






- Lmst fw<7
- Lmst fw7>
- shale, gm
- shale, gry
- Carbon Sh
- shale, red

ACCESSORIES

- | | | | |
|--|---|---|--|
| <p>MINERAL</p> <ul style="list-style-type: none"> ▲ Chert, dark ↙ Dolomitic ✕ Mineral Crystals ∴ Varicolored chert △ Chert White | <p>FOSSIL</p> <ul style="list-style-type: none"> ○ Crinoids F Fossils < 20% ◊ Oolite ◊ Oomoldic | <p>STRINGER</p> <ul style="list-style-type: none"> ■ Dolomite | <p>TEXTURE</p> <ul style="list-style-type: none"> C Chalky |
|--|---|---|--|

OTHER SYMBOLS

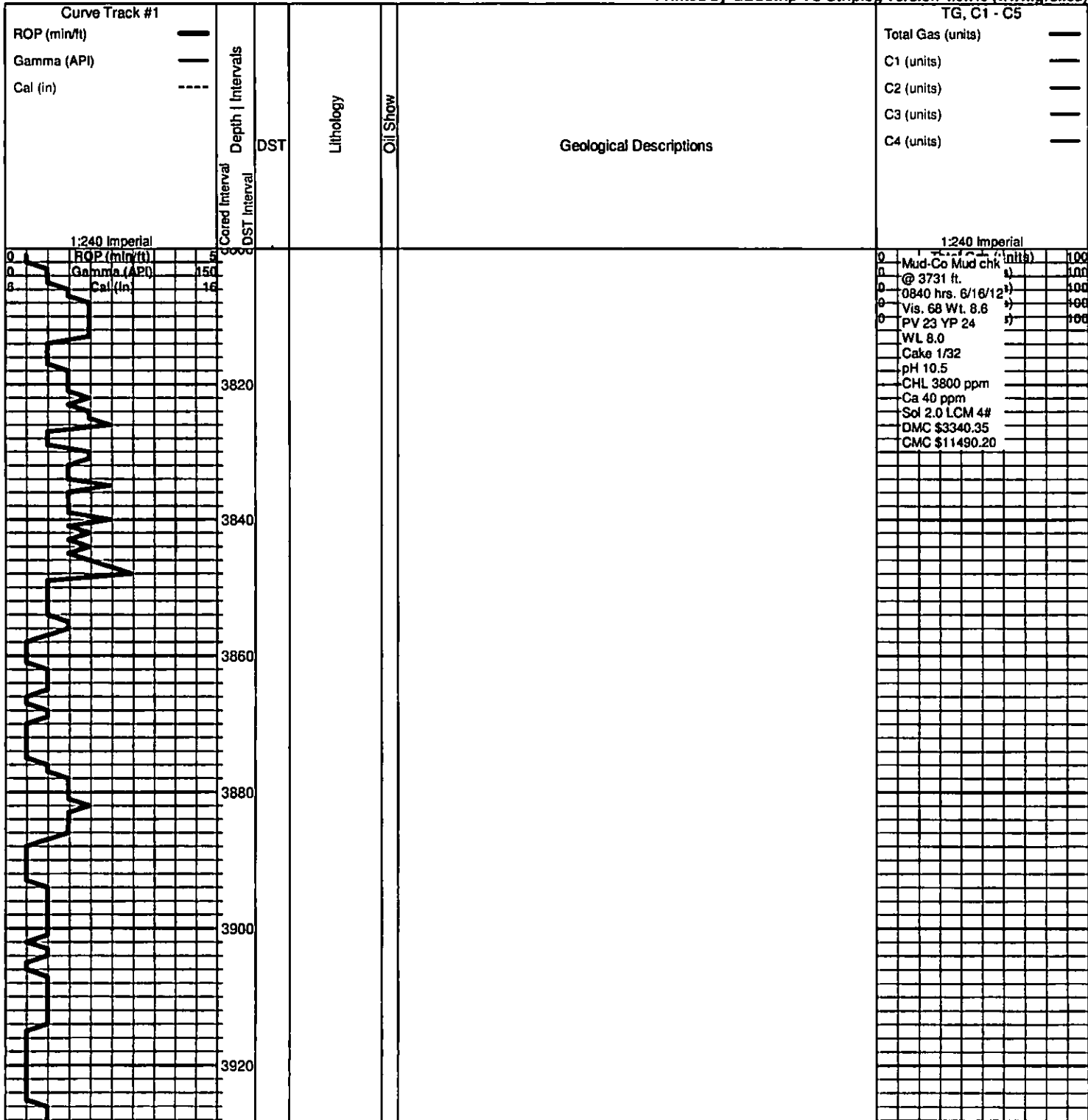
MISC

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

DST

-  DST Int
-  DST alt
-  Core
-  tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



geologist on
location @ 3940 ft -
1445 hrs 6/16/12

3940

3960

3980

4000

0 RQP (min/ft) 5
D Gamma (API) 150
B Cal (in) 16

4020

4040

4060

4080

4100

4120

4140

Begin 10 ft wet and dry samples, 4000 ft

limestone, cream to light gray, fossiliferous in part, microcrystalline, slightly chalky, poor visible porosity, no shows, no odor,

limestone, as above, more chalky, light gray chert

limestone, cream, as above, recrystallized in part

limestone, cream, cryptocrystalline to microcrystalline, chalky, fossiliferous, cherty, poor visible porosity, no shows, no odor, very dull yellow fluorescence

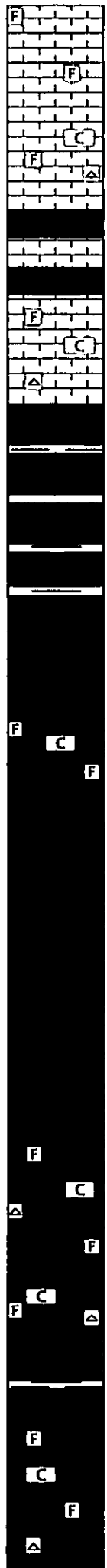
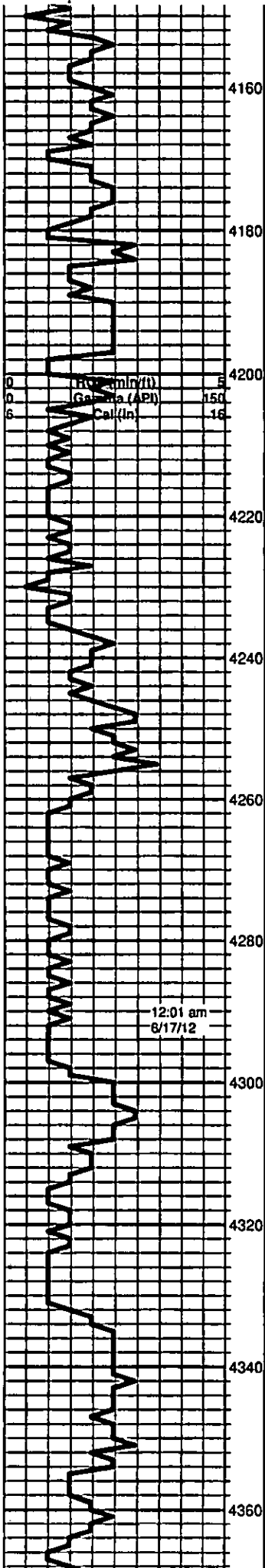
limestone, as above

limestone, cream to light gray, microcrystalline, chalky, grainy, fossiliferous, cherty, poor visible porosity, very dull yellow fluorescence, no odor, no shows

limestone, as above, less chert

limestone, as above

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



limestone, cream, microcrystalline to fine crystalline, fossiliferous, recrystallized in part, dense, poor visible porosity, cherty, slightly chalky, no odor, no shows

Heebner 4177 -1757

shale, black, carbonaceous

limestone, cream, micro to fine crystalline, fossiliferous, chalky, cherty, poor to fair visible porosity, no odor, no show

Douglas 4205 -1785

shale, gray, green, chalky,

shale, as above

limestone, light tan to light gray, very fossiliferous, dense, poor visible porosity, slightly chalky, no odor, no shows

shale, light gray to gray to red, fine to silty, firm

shale, as above

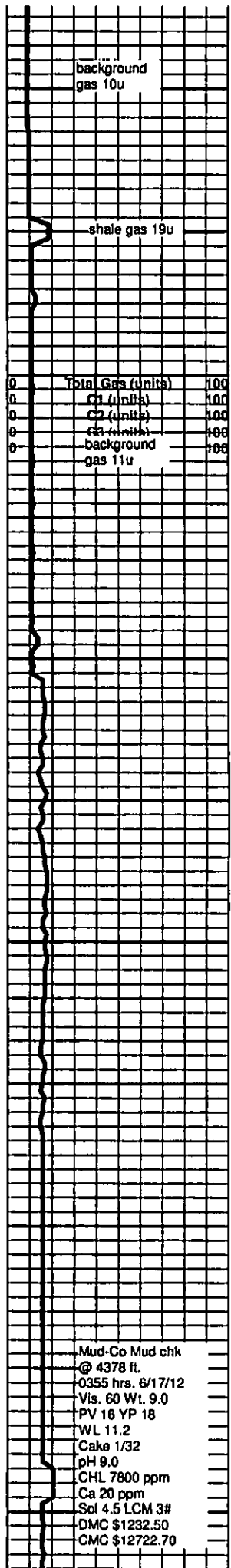
Lansing 4310 -1890

limestone, cream to light gray, microcrystalline, fossiliferous, dense, chalky, scattered chert, poor visible porosity, dull yellow-green fluorescence, no odor, no shows

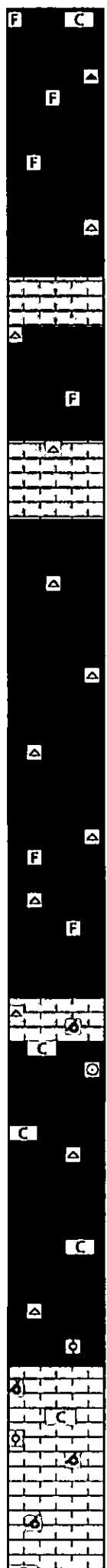
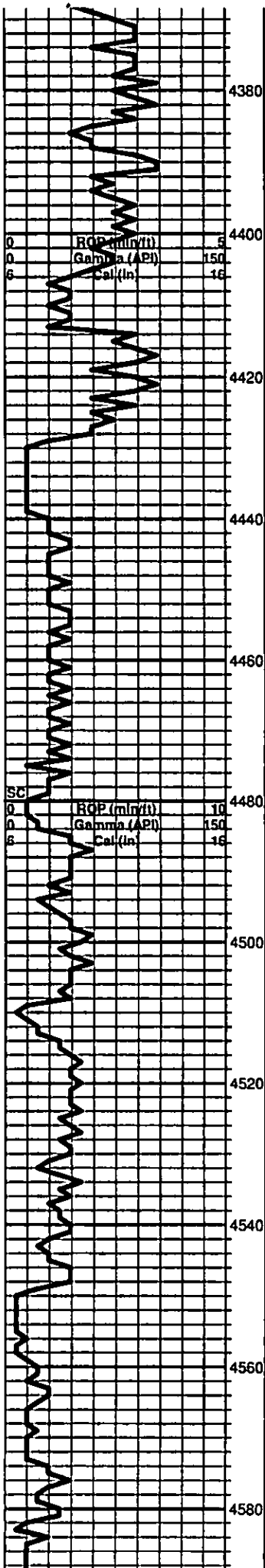
shale, gray, red, green

limestone, cream, crypto to microcrystalline, fossiliferous, dense, chalky, white chert, poor visible porosity, no odor

limestone, as above



Mud-Co Mud chk
 @ 4378 ft.
 0355 hrs. 8/17/12
 Vis. 60 Wt. 9.0
 PV 18 YP 18
 WL 11.2
 Cake 1/32
 pH 9.0
 CHL 7800 ppm
 Ca 20 ppm
 Sol 4.5 LCM 3#
 OMC \$1232.50
 CMC \$12722.70



limestone, cream to light gray, dense, cryptocrystalline to microcrystalline, fossiliferous, scattered recrystallization, light chert and dark chert, less chalky

limestone, cream, fossiliferous, oolitic, poor to fair visible porosity, chert, off white to dark gray, no shows, no odor

limestone, tan to cream, cryptocrystalline, dense, fossiliferous, poor visible porosity, very dull green fluorescence, no odor, no shows

limestone, cream to tan, cryptocrystalline to fossiliferous, scattered oolitic, no visible porosity, cherty, no fluorescence, no odor, no show

limestone, as above, with scattered oomoldic porosity

limestone, as above, fossiliferous

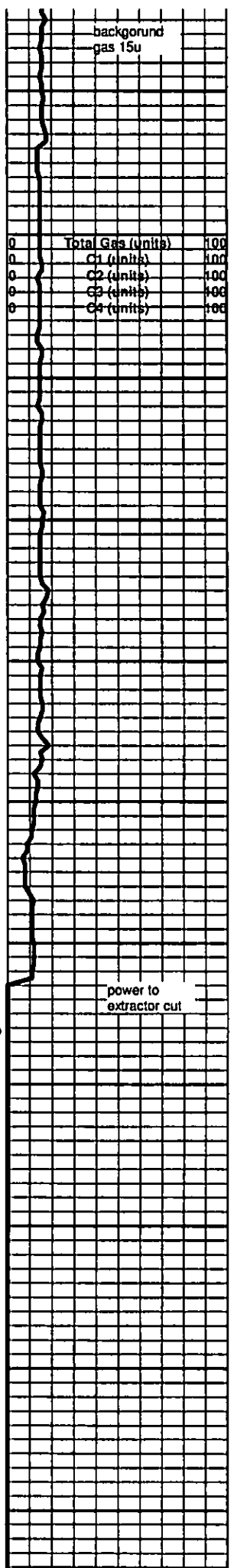
limestone, cream to light gray, micro to fine crystalline, fossiliferous, oomoldic in part, slightly chalky, cherty, poor visible porosity, no odor, no shows

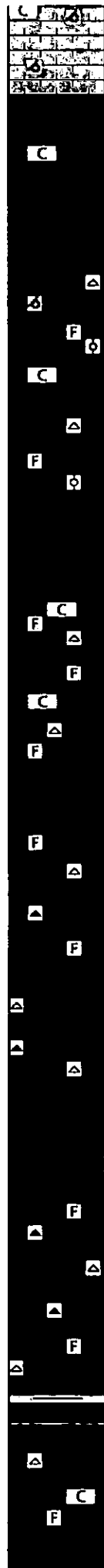
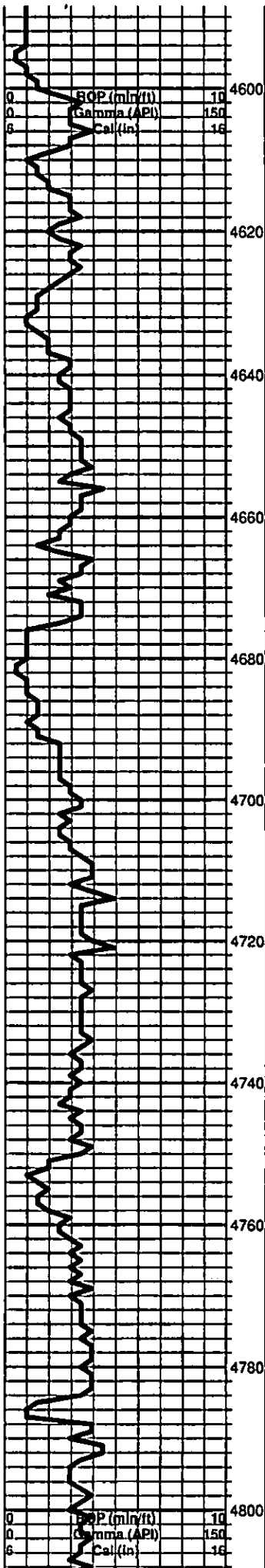
limestone, cream, cryptocrystalline, trace fossiliferous, slightly chalky, no odor, dull green-white fluorescence, no shows, cherty, poor visible porosity

limestone, as above, trace oolitic, poor to fair visible porosity, dim green fluorescence

limestone, cream to light tan, oomoldic, slightly chalky, fair to good oomoldic porosity, dull green fluorescence, no odor, no shows

limestone, as above





limestone, cream to light gray, crypto to microcrystalline, scattered recrystallization, slightly chalky, poor visible porosity, no fluorescence, no shows

Stark Shale 4619 -2199

shale, black, carbonaceous

limestone, cream, oolitic, scattered oomoldic, slightly chalky, cherty, scattered green fluorescence, poor visible porosity with scattered fair oomoldic porosity, no odor, no show

limestone, as above

shale, black, carbonaceous

limestone, cream to light gray, fossiliferous, cherty, chalky, no odor no shows

Base KC 4697 -2277

limestone, cream to light gray, cryptocrystalline, scattered fossiliferous, chert, white to dark gray, no show, no odor, very dull yellow-green fluorescence

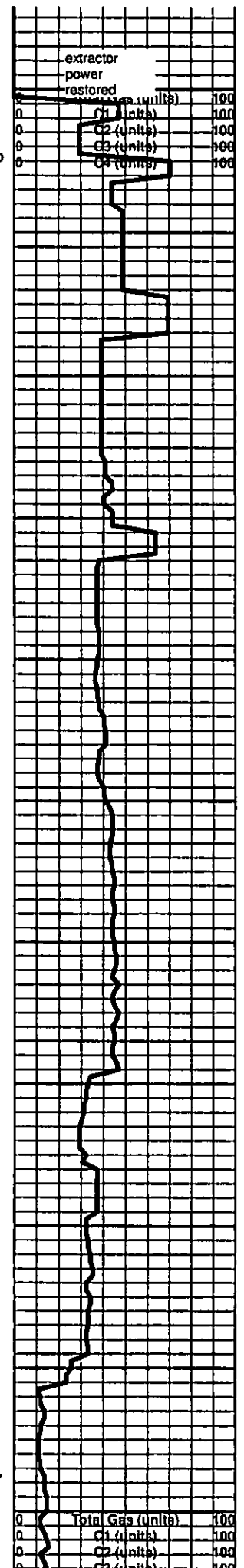
limestone, as above

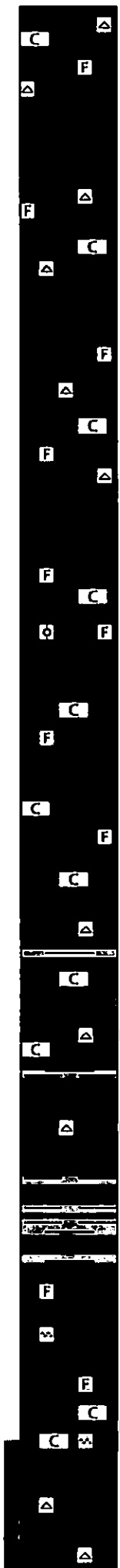
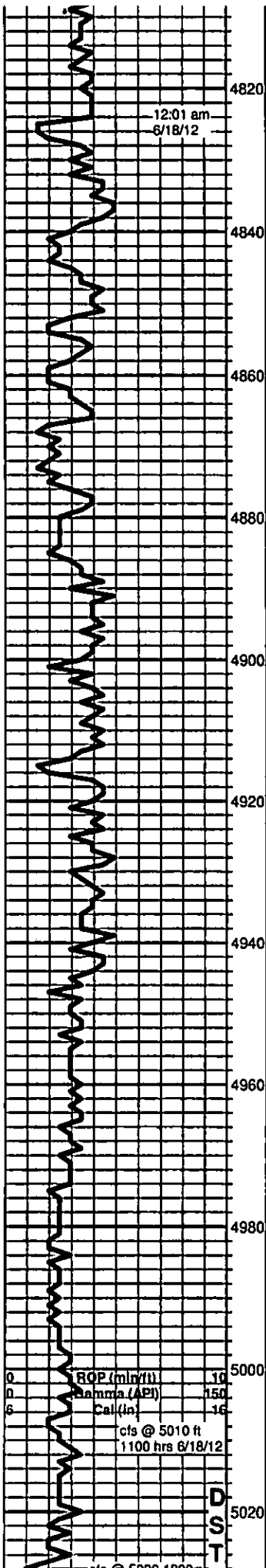
Marmaton 4751 -2331

limestone, cream to light tan, cryptocrystalline, limestone, light brown, fossiliferous, chert, shades from white to black, no odor, no shows

shale, black, carbonaceous

limestone, white to cream, cryptocrystalline, fossiliferous, oolitic in part, slightly chalky, shaley, cherty, poor visible porosity, no shows





limestone, as above

shale, black, carbonaceous

limestone, light gray to cream, cryptocrystalline, cherty, chalky, no visible porosity, no shows

shale, black, carbonaceous

limestone, cream to gray, crypto to microcrystalline, fossiliferous, slightly chalky, cherty, poor visible porosity

Cherokee 4879 -2459

shale, black, carbonaceous

limestone, cream, crushed fossiliferous, slightly oolitic, chalky, no shows, faint odor

shale, black, carbonaceous

limestone, as above

limestone, as above, with abundant chert

limestone, as above, chalky, cherty, abundant shale

limestone, cream to tan, fossiliferous to cryptocrystalline, dense, cherty, abundant shale, few scattered dead oil staining, no odor, no fluorescence, no shows

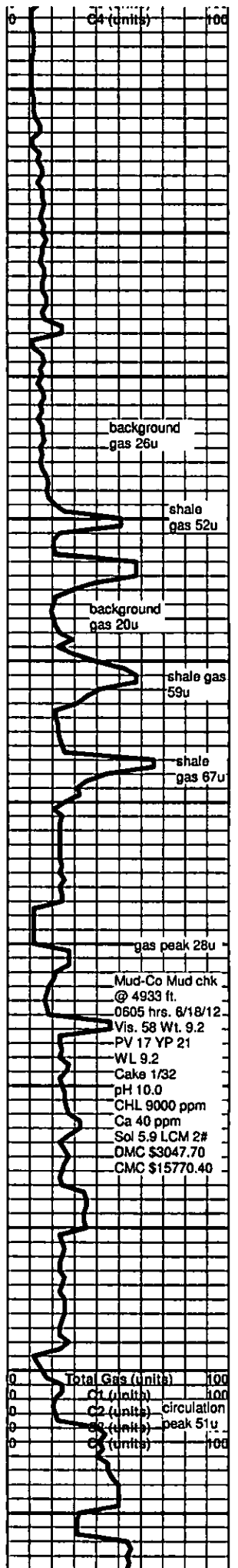
limestone, as above

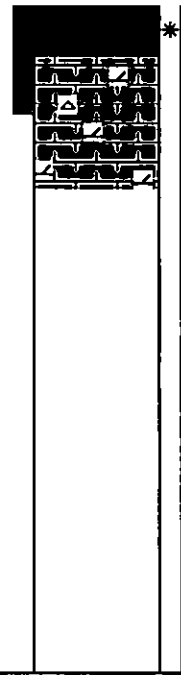
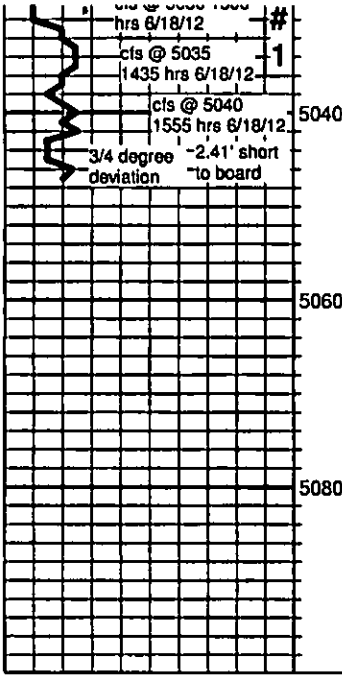
shale, dark gray to gray green, soft, platy to earthy

Mississippian 4988 -2568

limestone, cream to gray, microcrystalline, fossiliferous, very chalky, chert, white to green to orange, poor visible porosity, trace spotty dead oil stain, scattered dull yellow fluorescence, no odor, no shows

Warsaw porosity 5027 -2607





* limestone, cream to light gray, microcrystalline, scattered fossiliferous, chalky, cherty as above, slightly dolomitic, poor visible porosity, slow outgassing under lamp, very faint odor, no show

dolomitic limestone, light cream, fine crystalline, sub sucrosic, fair intercrystalline porosity, limestone, light tan, cryptocrystalline, spotty dull yellow fluorescence, no odor

rotary TD 5047 ft. 1550 hrs 6/19/12

circulation peak 61u	
circulation peak 57u	switch to tookeDAQ gas detector
Mud-Co Mud chk @ 5040 ft.	
0615 hrs. 6/19/12	
Vis. 41 Wt. 9.15	
PV 12 YP 13	
WL 15.6	
Cake 1/32	
pH 9.0	
CHL 8200 ppm	
Ca 40 ppm	
Sol 5.3 LCM 3#	
DMC \$660.20	
CMC \$16430.60	