



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1094048
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: _____

1094048

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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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 19, 2012

DEAN PATTISSON
Woolsey Operating Company, LLC
125 N MARKET STE 1000
WICHITA, KS 67202-1729

Re: ACO1
API 15-007-23873-00-00
LUTHI GU 5
SE/4 Sec.36-33S-11W
Barber County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
DEAN PATTISSON

ALLIED CEMENTING CO., LLC. 038060

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge, KS

DATE <u>05-23-12</u>	SEC. <u>36</u>	TWP. <u>33s</u>	RANGE <u>11w</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH. <u>12:00 Mid.</u>
LEASE <u>Luthi GV</u> WELL # <u>5</u>			LOCATION <u>Garlain</u>		COUNTY <u>Barber</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR Duke #7
 TYPE OF JOB Surface
 HOLE SIZE 14 3/4 T.D. 220
 CASING SIZE 10 3/4 DEPTH 202 + 17' 8 3/8
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX 200# MINIMUM -
 MEAS. LINE SHOE JOINT NA
 CEMENT LEFT IN CSG. 20'
 PERFS.
 DISPLACEMENT 19 1/4 Bbls Fresh H₂O

OWNER Woolsey
 CEMENT AMOUNT ORDERED 240sx class A + 3% occ + 2% gel
 COMMON 240 sx @ 16.25 3900.00
 POZMIX @
 GEL 5 sx @ 21.25 106.25
 CHLORIDE 9 sx @ 58.20 523.80
 ASC @

EQUIPMENT

PUMP TRUCK CEMENTER D. Felio
 # 371-302 HELPER G. Mclemore
 BULK TRUCK
 # 364 DRIVER J. Hawk / D. Felio
 BULK TRUCK
 # DRIVER

HANDLING 254 @ 2.25 571.50
 MILEAGE 254 / 20 / 11 558.80
 TOTAL 5660.35

REMARKS:

Pipe on Btm Break Casing, Mix 240sx Cement Disp. w/ 19 1/4 Bbls Fresh H₂O. Shut in - Cement did Circ

WELL FILE

Regulatory Correspondence
 Orig / Comp Workovers
 Tests / Meters Operations

SERVICE

DEPTH OF JOB 220'
 PUMP TRUCK CHARGE 1125.00
 EXTRA FOOTAGE @
 MILEAGE 20 @ 7.00 140.00
 MANIFOLD @ NA
~~Light Vehicle 20 @ 4.00 80.00~~

CHARGE TO: Woolsey
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 1345.00

PLUG & FLOAT EQUIPMENT

None @ _____
 @ _____
 @ _____
 @ _____
 @ _____

TOTAL _____

To Allied Cementing Co., 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 7005.35
 DISCOUNT 20% IF PAID IN 30 DAYS
Net 5604.28

PRINTED NAME Donald Boyd
 SIGNATURE Donald Boyd

ALLIED CEMENTING CO., LLC. 038062

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge KS

DATE <i>05-27-12</i>	SEC <i>36</i>	TWP <i>33S</i>	RANGE <i>11W</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <i>Luthi 61/2 WELL # 5</i>				LOCATION		COUNTY <i>Barber</i>	STATE <i>KS</i>
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR *Duke #7* OWNER *Woolsey Oper.*

TYPE OF JOB *Plug Back*

HOLE SIZE <i>7 7/8"</i>	T.D. <i>(3990) Deviated</i>	CEMENT
CASING SIZE	DEPTH	AMOUNT ORDERED <i>125sx class A + 1.2%</i>
TUBING SIZE <i>4 1/2"</i>	DEPTH <i>3856'</i>	<i>CD-31 + 5% salt</i>
DRILL PIPE	DEPTH	
TOOL	DEPTH	

PRES. MAX <i>150</i>	MINIMUM <i>—</i>	COMMON <i>class A 125sx @</i>	<i>2031.25</i>
MEAS. LINE	SHOE JOINT <i>—</i>	POZMIX	@
CEMENT LEFT IN CSG. <i>N/A</i>		GEL	@
PERFS.		CHLORIDE	@
DISPLACEMENT <i>4 1/2" 86lb Frac LHD & 40 86lb Mvd</i>		ASC	@
EQUIPMENT		Salt	<i>75x @ 167.65</i>
		CD-31	<i>141 # @ 1318.35</i>

PUMP TRUCK CEMENTER *D Felio*

558-555/48 HELPER *D. Franklin / B. Goins*

BULK TRUCK

421-252 DRIVER *J. Hawk / B. Boor*

BULK TRUCK

DRIVER

HANDLING <i>135</i>	@	<i>303.75</i>
MILEAGE <i>Min.</i>		<i>344.00</i>
TOTAL		<i>4165.00</i>

REMARKS:

See log

SERVICE

DEPTH OF JOB <i>3856'</i>	
PUMP TRUCK CHARGE	<i>1250.00</i>
EXTRA FOOTAGE	@
MILEAGE <i>20</i>	@ <i>140.00</i>
MANIFOLD <i>N/A</i>	@ <i>N/C</i>
<i>Light Vehicle 20</i>	@ <i>80.00</i>

CHARGE TO: *Woolsey Oper.*

STREET _____

CITY _____ STATE _____ ZIP _____

TOTAL *1470.00*

PLUG & FLOAT EQUIPMENT

NONE

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

To Allied Cementing Co., 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 *5635.00*

DISCOUNT _____ IF PAID IN 30 DAYS

4500.00

PRINTED NAME *Galvin Road*

SIGNATURE *Galvin Road*

ALLIED OIL & GAS SERVICES, LLC 053814

Federal Tax I.D.# 20-5975804

REMIT TO PO. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Medicine Lodge, KS

DATE <i>06/02/2012</i>	SEC <i>36</i>	TWP <i>3-3s</i>	RANGE <i>11w</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <i>Luthi GU</i>		WELL #		LOCATION <i>281 + Gerlane BK top, 8 miles East, North into</i>		COUNTY <i>Barber</i>	STATE <i>KS</i>
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR *Duke #7*

TYPE OF JOB *Production*

HOLE SIZE <i>7 7/8</i>	T.D. <i>5092</i>
CASING SIZE <i>5 1/2</i>	DEPTH <i>5092</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <i>1600</i>	MINIMUM
MEAS. LINE	SHOE JOINT <i>44.13</i>
CEMENT LEFT IN CSG. <i>44.13 ft</i>	
PERFS.	
DISPLACEMENT <i>130 bbl H₂O w 2% KCL</i>	

EQUIPMENT

PUMP TRUCK # <i>471/302</i>	CEMENTER <i>Jason Thimesch</i>
BULK TRUCK # <i>356/290</i>	HELPER <i>Brett Gains / David Felto</i>
BULK TRUCK #	DRIVER <i>Garret McLemore</i>
BULK TRUCK #	DRIVER

OWNER *Woolsey Oper*

CEMENT

AMOUNT ORDERED *90sx 60:40:40% Gel, 130sx Class H + 10% Gyp + 10% Salt + 6# Kalscal + .8% #1/160 + 4# Flaseal, 13 Gal Ckpro*

COMMON <i>Class A</i>	<i>54sx @ 16.25</i>	<i>877.50</i>
POZMIX	<i>36sx @ 8.50</i>	<i>306</i>
GEL	<i>4sx @ 21.25</i>	<i>85</i>
CHLORIDE	@	
ASC	@	
Common class #	<i>130sx @ 19.25</i>	<i>2502.50</i>
Cyposeal	<i>13sx @ 39.20</i>	<i>494.60</i>
Salt	<i>15sx @ 12</i>	<i>180</i>
Kalscal	<i>280lbs @ .89</i>	<i>694.20</i>
FL-160	<i>97lbs @ 17.20</i>	<i>1668.4</i>
Flaseal	<i>32lbs @ 2.70</i>	<i>86.40</i>
	@	
	@	
HANDLING	<i>272 @ 2.25</i>	<i>612</i>
MILEAGE <i>272 x 20 x .11</i>		<i>598.4</i>
TOTAL		<i>8055</i>

REMARKS:

Plus held

WELL FILE

Regulatory Correspondence
Drig (Comp) Workovers
Tests / Meters Operations

Thank you

CHARGE TO: *Woolsey*

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB <i>5092</i>		
PUMP TRUCK CHARGE		<i>2695</i>
EXTRA FOOTAGE	@	
MILEAGE <i>1</i>	<i>20mi @ 7</i>	<i>140</i>
MANIFOLD <i>+ Head</i>	@	<i>200</i>
LV	<i>20mi @ 4</i>	<i>80</i>
	@	
TOTAL		<i>3115</i>

PLUG & FLOAT EQUIPMENT

5 1/2

<i>Recip scratchers</i>	<i>40 @ 76</i>	<i>3040</i>
<i>turbolizers</i>	<i>14 @ 80</i>	<i>1120</i>
<i>latch down plug</i>	<i>1 @ 277</i>	<i>277</i>
<i>AFU Float shoe</i>	<i>1 @ 349</i>	<i>349</i>
	@	

TOTAL *4786*

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.

PRINTED NAME *Donald Boyd*

SIGNATURE *Donald Boyd*

SALES TAX (If Any) _____

TOTAL CHARGES *15956.00*

DISCOUNT *3191.20/20%* IF PAID IN 30 DAYS

Net \$ 12,764.80



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Operating Co.
125 N. Market, Ste. 1000
Wichita Ks. 67202
ATTN: Scott Alberg

36-33s-11w Barber Ks.

Luthi GU#5

Job Ticket: 47540

DST#: 1

Test Start: 2012.05.30 @ 13:40:16

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:43:16
 Tester: Gary Pevoteaux
 Time Test Ended: 21:54:16
 Unit No: 56
 Interval: **4490.00 ft (KB) To 4527.00 ft (KB) (TVD)**
 Reference Elevations: 1454.00 ft (KB)
 Total Depth: 4527.00 ft (KB) (TVD)
 1441.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Poor
 KB to GR/CF: 13.00 ft

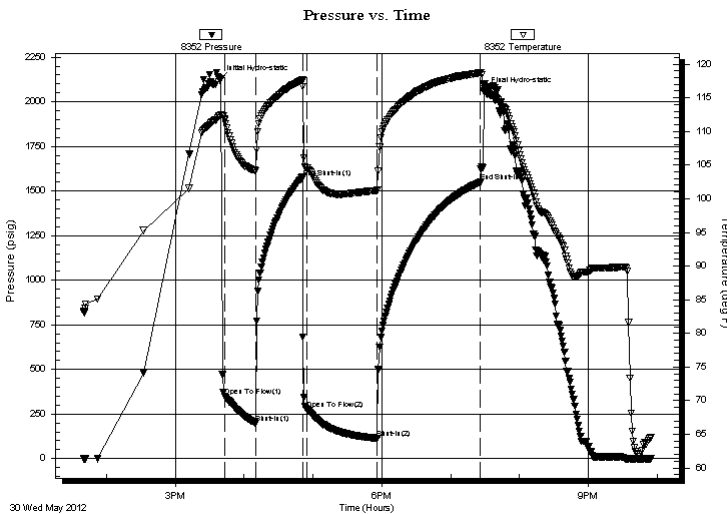
Serial #: 8352

Outside

Press @ Run Depth: 113.94 psig @ 4491.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.30 End Date: 2012.05.30 Last Calib.: 2012.05.30
 Start Time: 13:40:21 End Time: 21:54:15 Time On Btm: 2012.05.30 @ 15:38:46
 Time Off Btm: 2012.05.30 @ 19:28:46

TEST COMMENT: IF: Strong blow . GTS in 90 secs. (see gas flow report)
 IS: No blow .
 FF: Strong blow . (see gas flow report)
 FS: No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2125.25	112.36	Initial Hydro-static
5	348.02	111.67	Open To Flow (1)
32	198.09	104.19	Shut-In (1)
72	1576.85	117.63	End Shut-In (1)
76	279.79	104.56	Open To Flow (2)
138	113.94	101.23	Shut-In (2)
227	1549.71	118.71	End Shut-In (2)
230	2058.78	116.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	GCM	0.12

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	100.00	1786.91
Last Gas Rate	0.75	36.00	787.24
Max. Gas Rate	0.75	100.00	1786.91



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.
125 N. Market , Ste. 1000
Wichita Ks. 67202
ATTN: Scott Alberg

36-33s-11w Barber Ks.
Luthi GU#5
Job Ticket: 47540 **DST#: 1**
Test Start: 2012.05.30 @ 13:40:16

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	4000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	GCM	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: gp-1
 Laboratory Name: Caraway Laboratory Location: Liberal, KS
 Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co.

36-33s-11w Barber Ks.

125 N. Market, Ste. 1000
Wichita Ks. 67202

Luthi GU#5

Job Ticket: 47540

DST#: 1

ATTN: Scott Alberg

Test Start: 2012.05.30 @ 13:40:16

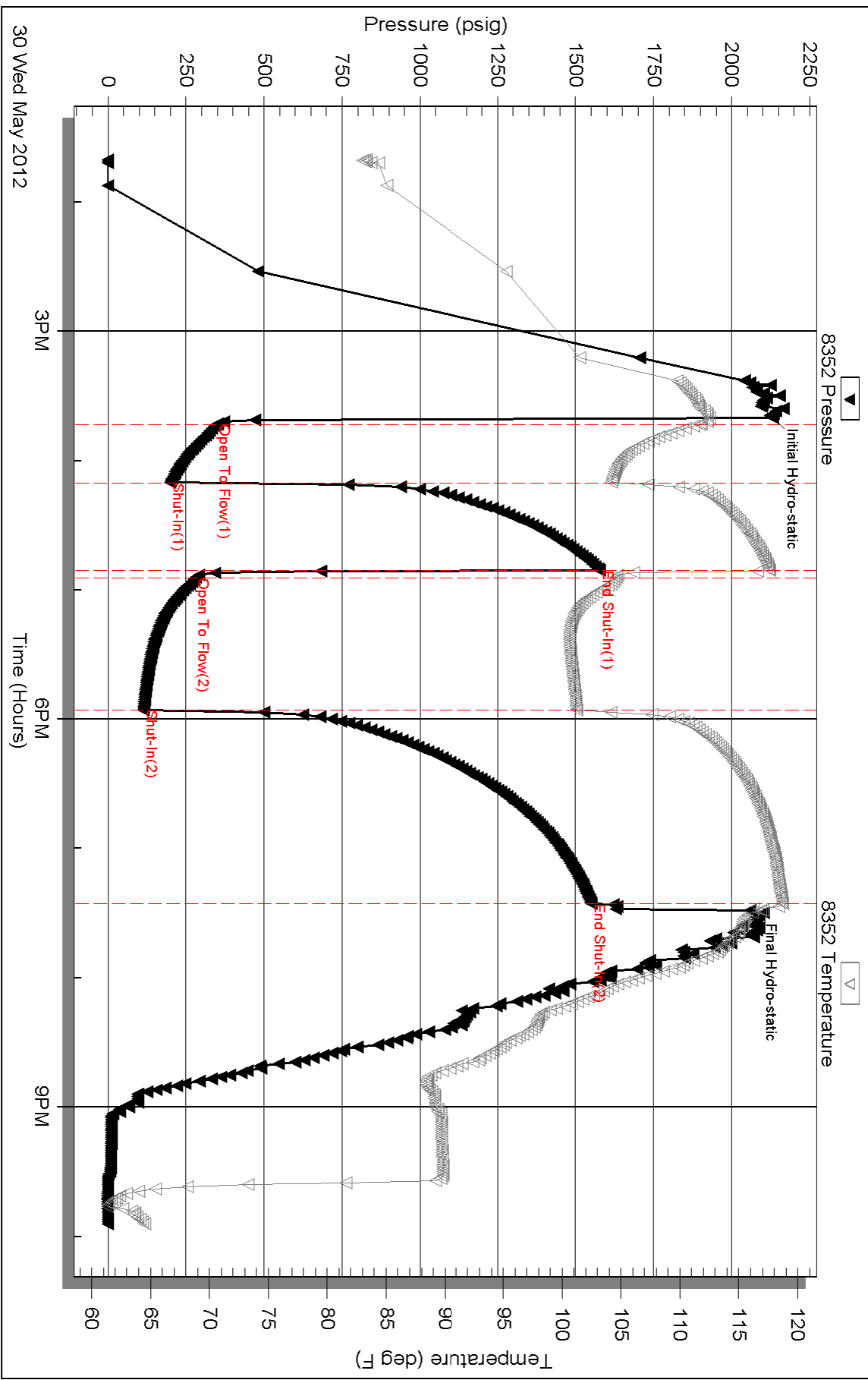
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	5	0.75	100.00	1786.91
1	5	0.75	100.00	1786.91
1	15	0.75	90.00	1630.71
1	20	0.75	80.00	1474.51
1	30	0.75	71.00	1333.94
2	10	0.75	88.00	1599.47
2	20	0.75	67.00	1271.46
2	30	0.75	54.00	1068.40
2	40	0.75	46.00	943.44
2	60	0.75	36.00	787.24

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co.
 125 N. Market, Ste. 1000
 Wichita Ks. 67202
 ATTN: Scott Alberg

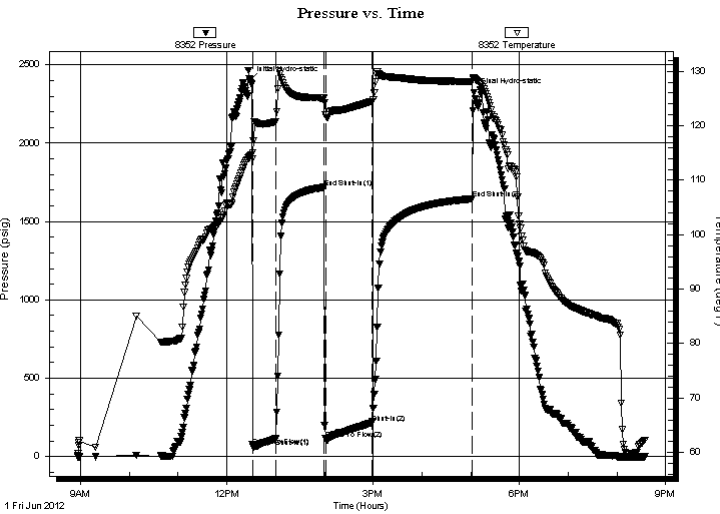
36-33s-11w Barber Ks.
Luthi GU#5
 Job Ticket: 47541 **DST#: 2**
 Test Start: 2012.06.01 @ 08:56:24

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 12:31:54 Tester: Gary Pevoteaux
 Time Test Ended: 20:34:54 Unit No: 56
Interval: 4890.00 ft (KB) To 4950.00 ft (KB) (TVD) Reference Elevations: 1454.00 ft (KB)
 Total Depth: 4950.00 ft (KB) (TVD) 1441.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 13.00 ft

Serial #: 8352 Outside
 Press @ Run Depth: 215.73 psig @ 4891.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01
 Start Time: 08:56:29 End Time: 20:34:54 Time On Btm: 2012.06.01 @ 12:28:09
 Time Off Btm: 2012.06.01 @ 17:03:54

TEST COMMENT: IF: Strong blow . GTS in 12 mins. (see gas flow report)
 IS: No blow .
 FF: Strong blow . (see gas flow report)
 FS: Fair to strong blow . B.O.B.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2401.63	114.32	Initial Hydro-static
4	63.77	115.08	Open To Flow (1)
33	114.16	120.77	Shut-In(1)
92	1718.82	125.09	End Shut-In(1)
94	113.61	121.93	Open To Flow (2)
151	215.73	124.46	Shut-In(2)
274	1645.18	128.16	End Shut-In(2)
276	2322.42	128.87	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
180.00	GOCM 32%g 30%o 38%m	0.89
455.00	CGO 38% g 62%o	6.38

* Recovery from multiple tests

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	5.00	71.07
Last Gas Rate	0.38	6.00	74.73
Max. Gas Rate	0.38	8.00	82.06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co.
125 N. Market, Ste. 1000
Wichita Ks. 67202
ATTN: Scott Alberg

36-33s-11w Barber Ks.
Luthi GU#5
Job Ticket: 47541 **DST#: 2**
Test Start: 2012.06.01 @ 08:56:24

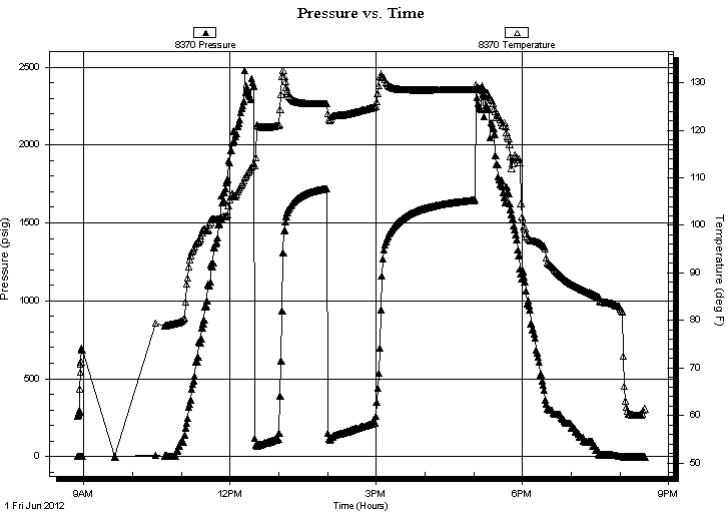
GENERAL INFORMATION:

Formation: **Viola**
Deviated: **No Whipstock:** ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 12:31:54 Tester: Gary Pevoteaux
Time Test Ended: 20:34:54 Unit No: 56
Interval: 4890.00 ft (KB) To 4950.00 ft (KB) (TVD) Reference Elevations: 1454.00 ft (KB)
Total Depth: 4950.00 ft (KB) (TVD) 1441.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 13.00 ft

Serial #: 8370 Inside

Press @ Run Depth: psig @ 4891.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01
Start Time: 08:52:13 End Time: 20:31:08 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong blow . GTS in 12 mins. (see gas flow report)
IS: No blow .
FF: Strong blow . (see gas flow report)
FS: Fair to strong blow . B.O.B.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
180.00	GOCM 32%g 30%o 38%m	0.89
455.00	CGO 38% g 62%o	6.38

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	5.00	71.07
Last Gas Rate	0.38	6.00	74.73
Max. Gas Rate	0.38	8.00	82.06

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.

36-33s-11w Barber Ks.

125 N. Market ,Ste.1000
Wichita Ks.67202

Luthi GU#5

Job Ticket: 47541

DST#: 2

ATTN: Scott Alberg

Test Start: 2012.06.01 @ 08:56:24

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	GOCM 32%g 30%o 38%m	0.885
455.00	CGO 38% g 62%o	6.382

Total Length: 635.00 ft

Total Volume: 7.267 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co.

36-33s-11w Barber Ks.

125 N. Market, Ste. 1000
Wichita Ks. 67202

Luthi GU#5

Job Ticket: 47541

DST#: 2

ATTN: Scott Alberg

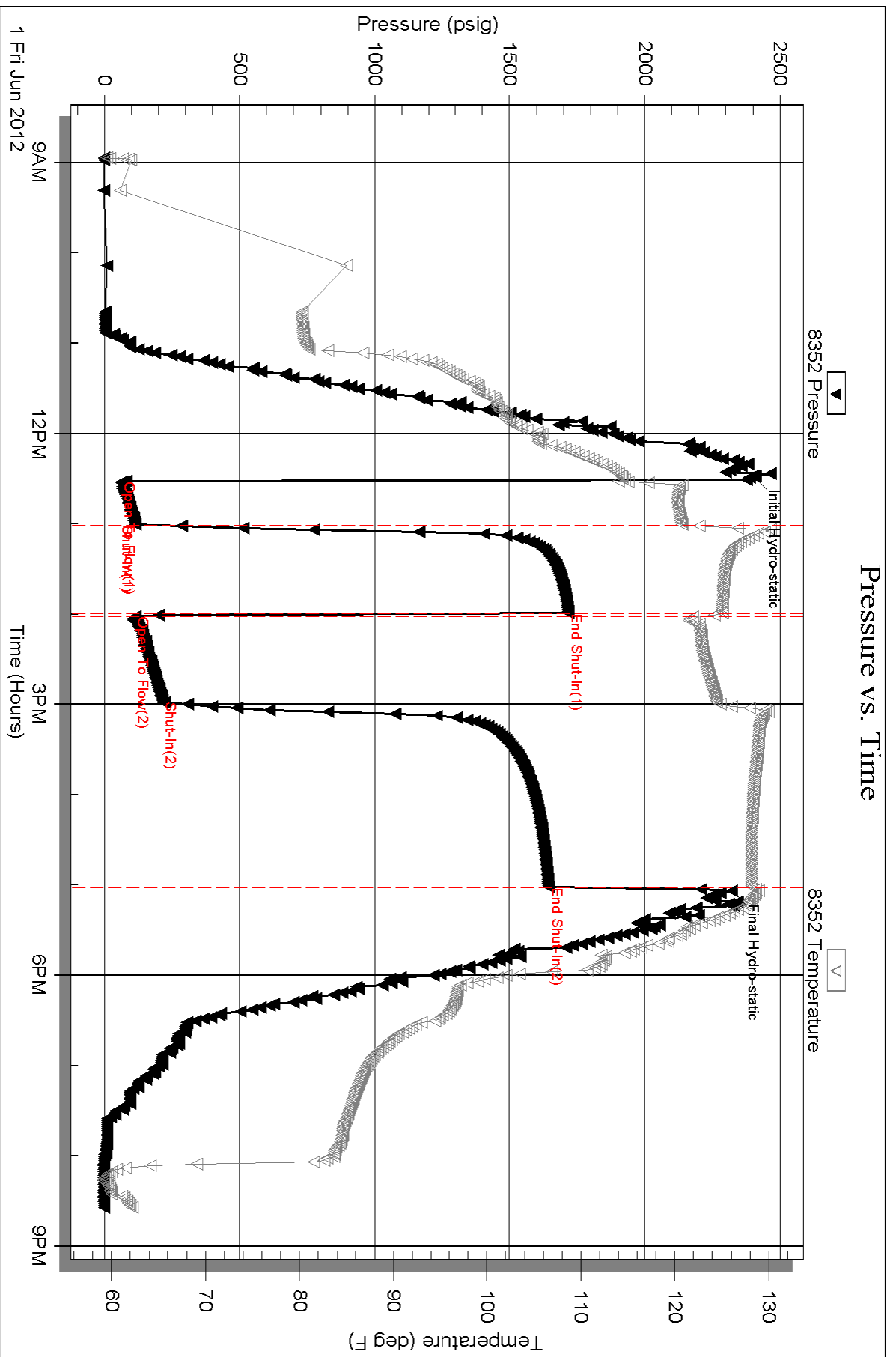
Test Start: 2012.06.01 @ 08:56:24

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	20	0.38	5.00	71.07
1	30	0.38	6.00	74.73
2	10	0.38	6.00	74.73
2	20	0.38	7.00	78.39
2	30	0.38	8.00	82.06
2	40	0.38	7.00	78.39
2	50	0.38	7.00	78.39
2	60	0.38	6.00	74.73



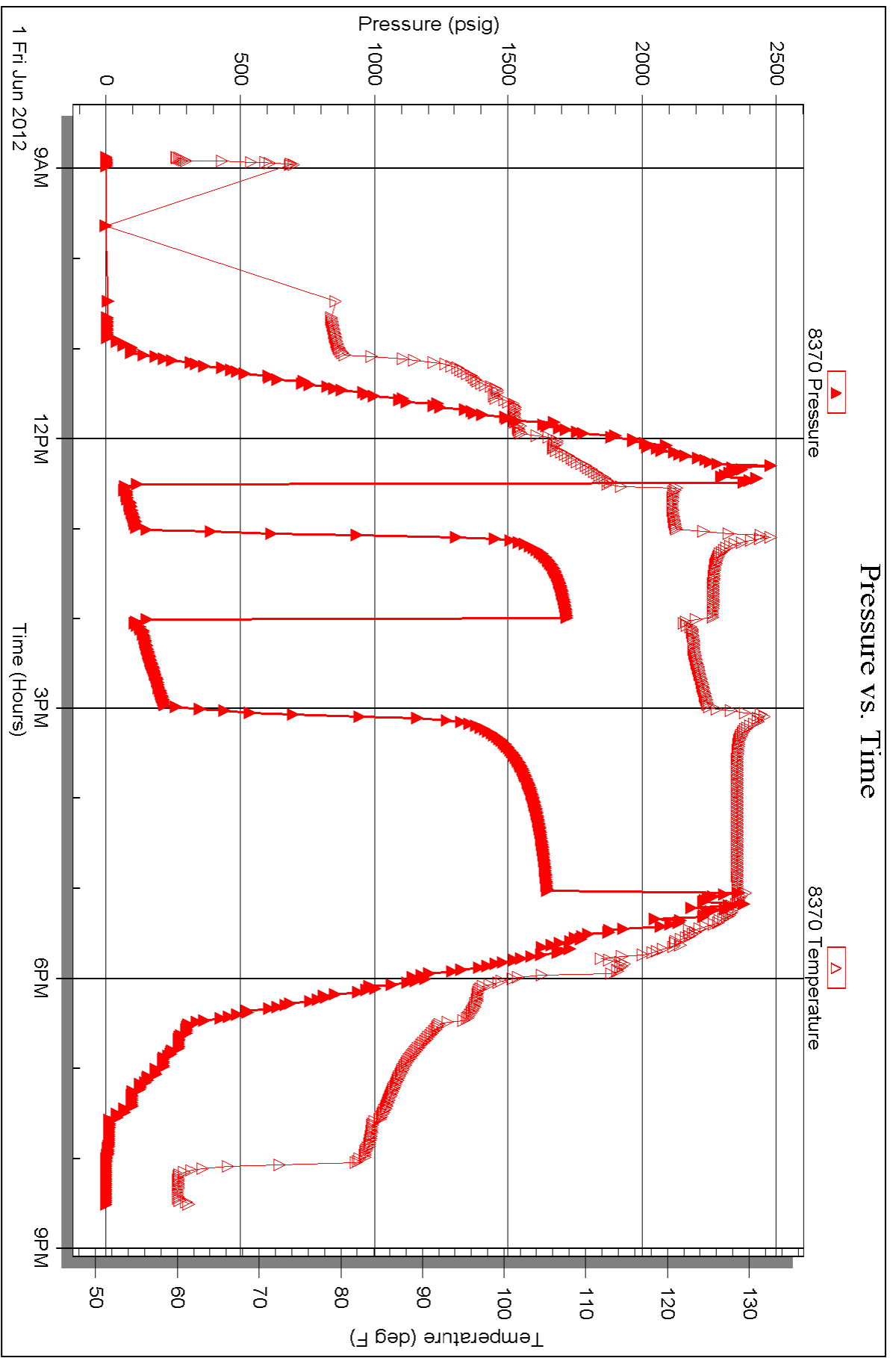
Serial #: 8370

Inside

Woodsey Operating Co.

Luthi GU#5

DST Test Number: 2





Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: LUTHI GU #5
Location: APROX N/2 S/2 SE
License Number: API: 15-007-23873-00-00
Spud Date: May 23, 2012
Surface Coordinates: Section 36-T33S-R11W, 1015' FSL, 1420' FEL
Kochia Pool
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1441 K.B. Elevation (ft): 1454
Logged Interval (ft): 4000 To: 5092 Total Depth (ft): 5092
Formation: Simpson Sand
Type of Drilling Fluid: Chemical Mud, Displace at 3990'(second time)
Region: Barber County, Kansas
Drilling Completed: June 2, 2012
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Woolsey Operating Company, LLC
Address: 125 N. Market, Suite 1000
Wichita, KS 67202

GEOLOGIST

Name: W. Scott Alberg
Company: Alberg Petroleum, LLC
Address: 609 Meadowlark Lane
Pratt, Kansas 67124

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
HUSHPUCKNEY SHALE		4370(-2916)
B/KC	4421(-2967)	4426(-2973)
PAWNEE	4511(-3057)	4515(-3061)
CHEROKEE GROUP	4558(-3104)	4563(-3109)
MISSISSIPPIAN	4596(-3142)	4591(-3137)
KINDERHOOK SHALE	4812(-3358)	4818(-3364)
WOODFORD SHALE	4893(-3439)	4897(-3443)
VIOLA	4930(-3476)	4931(-3477)
SIMPSON GROUP	5025(-3571)	5024(-3570)
SIMPSON SAND	5045(-3591)	5042(-3588)
MCLISH SHALE		
RTD	5092(-3638)	
LTD		5097(-3643)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 217' with 240 sxs Class A, 2% gel, 3% cc, plug down at 12:00 am on May 24, 2012. Cement did Circulate.

Production Casing: 5 1/2 casing ran

Deviation Surveys: 1/4 - 220', 3/4 - 517', 1/2 - 1014', 1/2 - 1513', 3/4 - 1985', 1/4 - 2486', 3/4 - 3015', 3/4 - 3550', 5.85 - 3990', 5 1.2 - 3990; pull up hole - 1/2 3515', 1 - 3770', 2-3801, 3 1/2 -3864', cement back, new surveys, 2 - 3801, 1 1/4 - 3801, 1 3/4 3832, 2-3864', 1 1/4 - 3895', 1 1/2 - 3927', 1 - 3958', 1 - 3990, 11/2 - 4083', 3/4 4178', 3/4 4273', 3/4 - 4400', 3/4 - 4495', 1- 4715', 1-4841', 3/4 4950', 3/4 - 5092'.

Contractor Bit Record:

1- 14 3/4" out at 220'.

2- 7 7/8" out at 3560' PDC

3 - 7 7/8" out at 3990'

Put PDC back in after cementing back @ 3990'

2- 7 7/8" out at 4400' PDC

3 - 7 7/8" out at 5092'

Pipe Strap at 4527' Strap 5.17' long to board.

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Terry Ison, Engineers

DSTs: Trilobite Testing

Logged by Superior Well Services.

LTD - 5097'

DSTs

DST #1 4490 to 4527 Times 30-40-60-90 Pawnee (Tester opened tool prior to the 60 minute requested shutin on initial shut in)

1st Opening - GTS 90 seconds - Blow back BOB

2nd opening - GTS Immediately - Blow back BOB

Gas Gauge:

1st opening - 5 min 1787mcfgpd

15 min 1631mcfgpd

20 min 1475mcfgpd

30 min 1334mcfgpd

2nd Opening-10 min 1599mcfgpd

20 min 1271mcfgpd

30 min 1068mcfgpd

40 min 943mcfgpd

50 min 850mcfgpd

60 min 787mcfgpd

Recovery: 25' GCM (4% gas, 96% mud)

IFP 348-198# FFP 280-114#

ISIP 1577# FSIP 1550#

IHP 2125# FHP 2059#

DST #2 4890 to 4950 Times 30-60-60-120 (Viola)

1 st Opening - Strong Blow, GTS 12 minutes - no blow back

2nd Opening - Strong Blow, GTS immediately - fair to strong blow back

Gas Gauge

1st Opening - 20 min 71 mcfgpd

30 min 75 mcfgpd

2nd opening- 10 min 75 mcfgpd

20 min 78 mcfgpd

30 min 82 mcfgpd

40 min 78 mcfgpd

50 min 78 mcfgpd

60 min 75 mcfgpd

Recovery: 455' CGO(38% Gas, 62% Oil)

180' GOCM (32% Gas, 30% Oil, 38% Mud)

Temp 128, Gravity 40 degrees

IFP 64-114# FFP 114-216#

ISIP 1719# FSIP 1645#

IHP 2402# FHP 2322#

CREWS

Duke Drilling


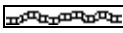
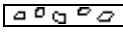
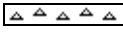
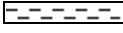

Tool Pusher - Galen Roach







Drillers - Shane Meitler


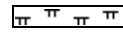

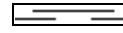


Charles Stout






Craig Mertens

ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal

	Congl
	Sdy dolo
	Shy dolo
	Dol
	Gyp
	Sdy lmst

	Lmst
	Mrlst
	Salt
	Shale
	Slstst
	Ss

	Black sh
	Gry sh
	Shale
	Shyslstst
	Sltysh

ACCESSORIES

MINERAL

- Anhy
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Ferrpel
- Ferr
- Glau
- Gyp
- Marl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt

- Chlorite
- Dol
- Sand
- Slty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra

- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomoldic

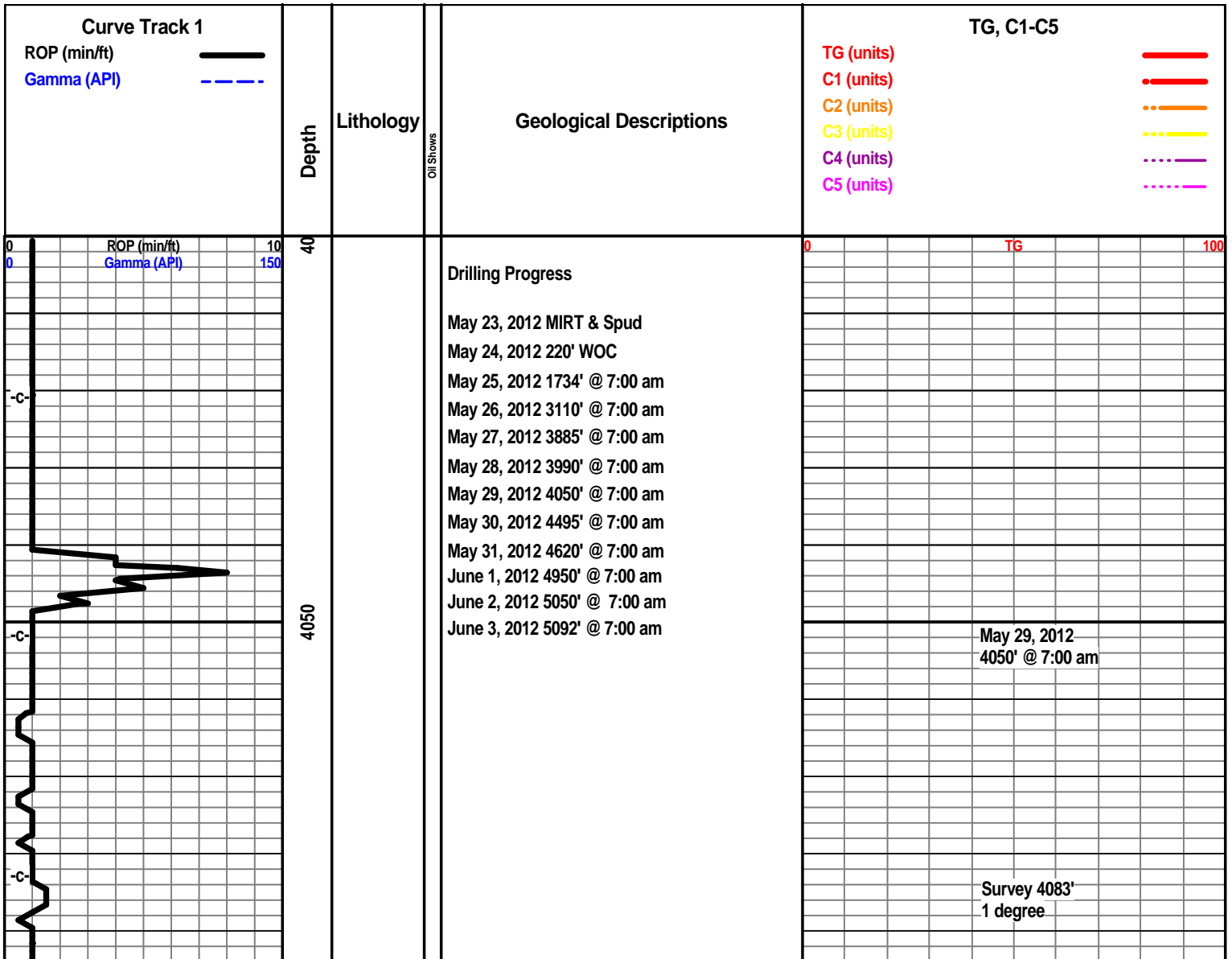
STRINGER

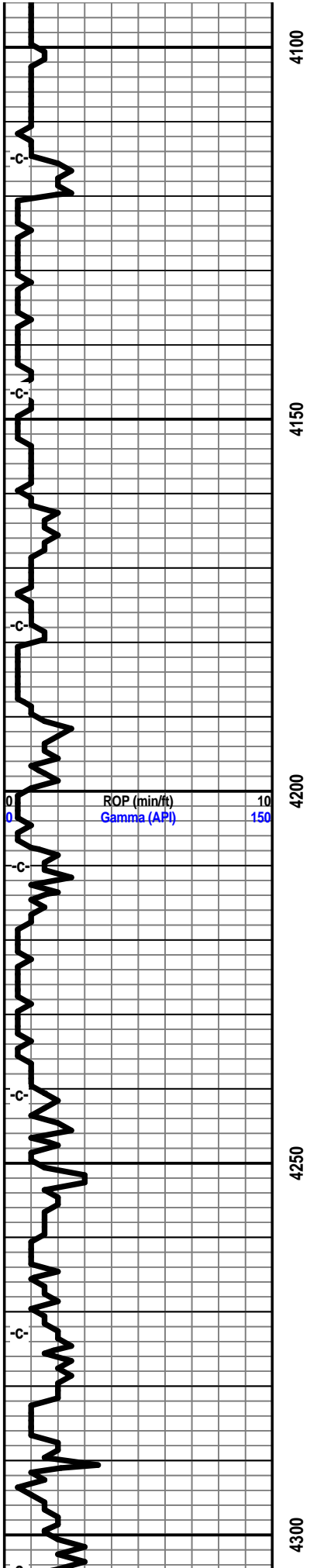
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Slststrg
- Ssstrg
- Carbsh
- Clystn
- Dol

- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Slststn

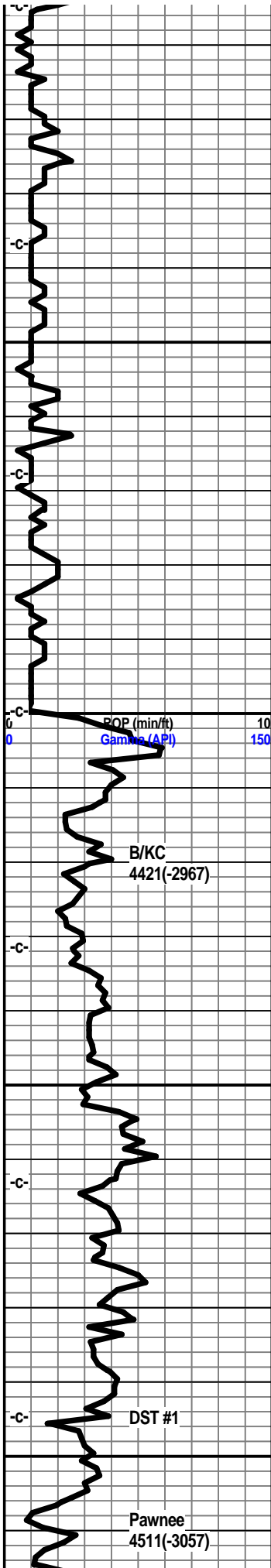
TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

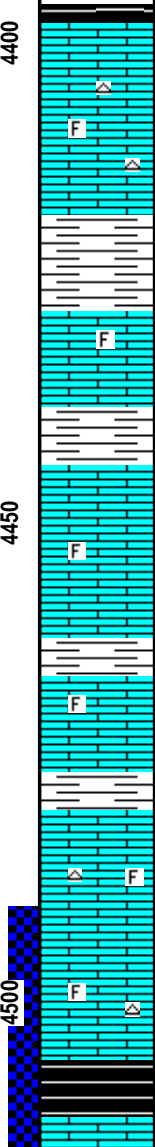




Mud Co Mud Check May 29, 2012 4115' @ 11:00 am Vis 44 Wt 8.9 pH 12.5 WL 9.5 Chl 4000 LCM 0		
Survey 4178 3/4 degree		
0	TG	100
Survey 4273' 3/4 degree		
Geologist on Location 4300' @ 4:00 pm May 29, 2012		



4350
4400
4450
4500



Shale, grey-black, grey.

Limestone, tan-white, fxl, dense, trace foss, traces of tan chert.

Limestone, tan, buff, xln, dense, foss, trace tan chert.

Shale, pale green, soft, calcitic.

Limestone, pale green, buff, xln, shaley in part.

Shale, green, dark green.

Limestone, buff, pale green, xln, dense in part, slightly shaley.

shale, light grey

Limestone, tan, buff, light grey, xln, dense, trace foss., some green shales interbedded.

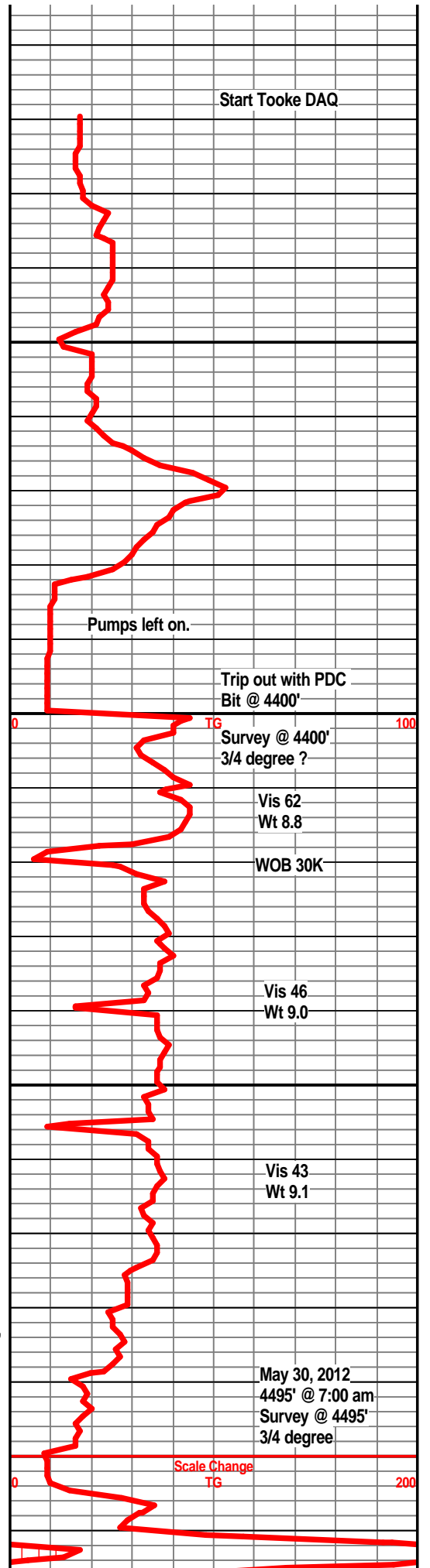
Shale., light grey.

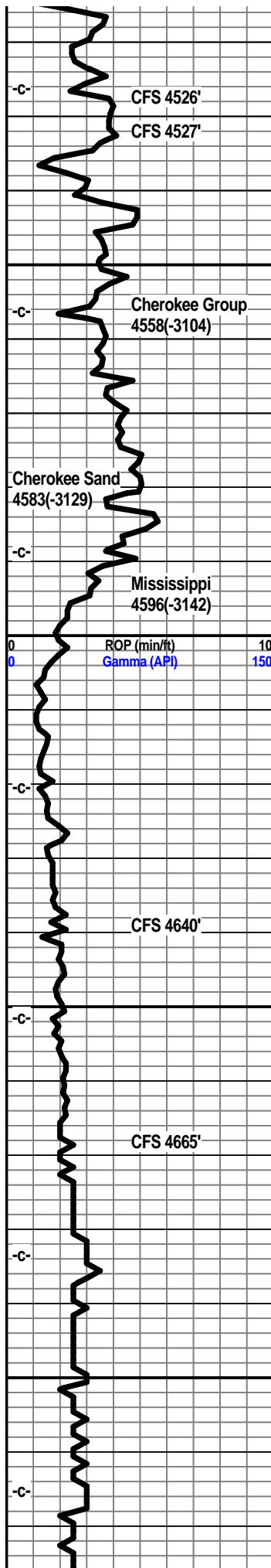
Limestone, tan-white, fxl, dense, slightly foss, traces of tan chert.

Limestone, tan-white, buff, fxl, dense, slightly foss, trace tan cherts, slightly chalky.

Shale, grey-black, carb.

Limestone, buff-white, xln, oolitic, inter-oolitic





porosity, trace show gas bubbles, very dull scattered fluor, no visible show of oil, no odor, good gas indication.

Limestone, cream, buff, xln, foss, mostly dense, some tan chert.

Shale, grey-black, carb.

Limestone, tan, buff, fxln, dense, foss in part, subchalky.

Shale, grey-black, slightly carb

Limestone, tan-white, buff, xln, dense, cherty in part, subchalky.

Limestone, tan,fxln, foss in part, tan chert.

Shale, light grey, green.

Sandstone, grey, tan, fine grained, well cemented, trace dark staining, no odor, no visible shows.

Shale, light grey, green, some vari-colored, traces of chert.

Chert, white, off-white, tan, sharp, fresh, weathered in part, trace pp porosity, light brown scattered staining, some edge staining, poor odor, dull scattered fluor.

Chert, off-white, tan, sharp, increasing weathered cherts, pp to scattered small vugular porosity, fair odor, slight show light oil, some bleeding gas, scattered fluor.

Chert, tan, off-white, sharp to weathered, scattered small vugs, pp porosity, trace show of oil and some bleeding gas, scattered dark brown to light brown staining, dull fluor.

Chert, off-white, tan, weathered, pp porosity, light brown staining, faint odor, dull fluor, trace show of oil., traces of grey-green splintery shales.

Chert, tan-white, sharp, weathered, faint odor, scattered staining, trace shales, trace tan dolo.

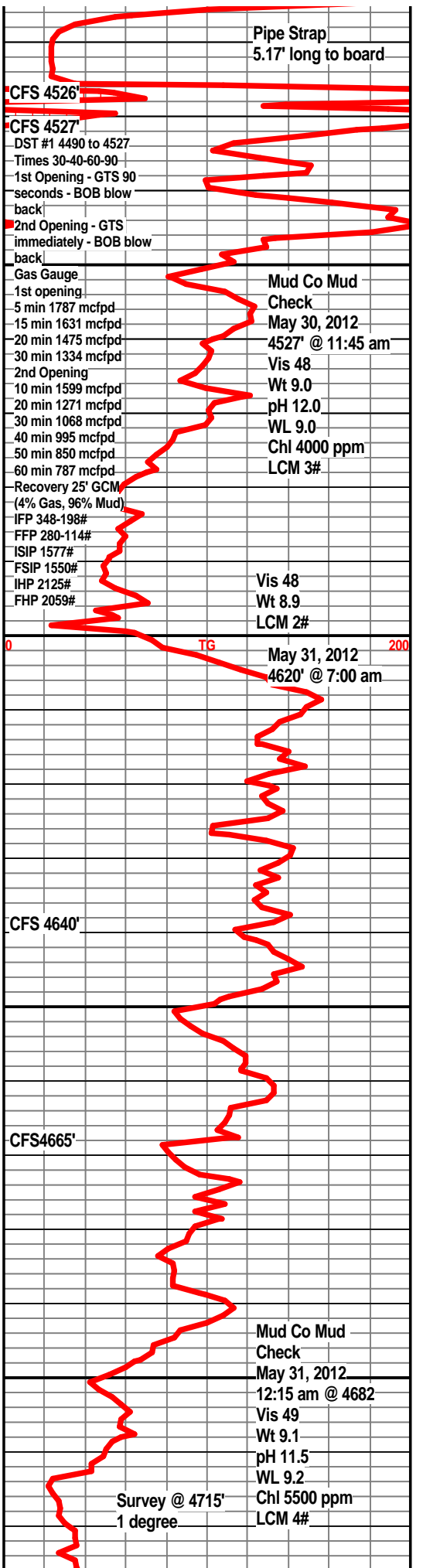
Dolo, tan, grey, xln, abundant weathered cherts, light brown staining, very faint odor.

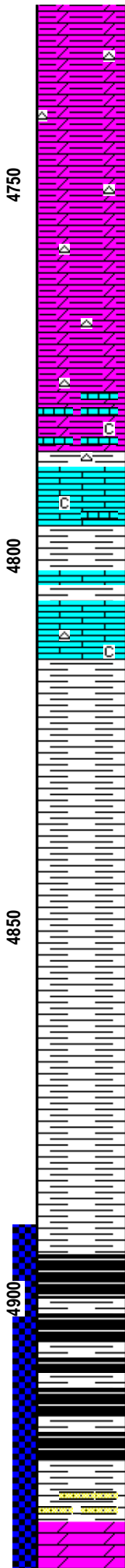
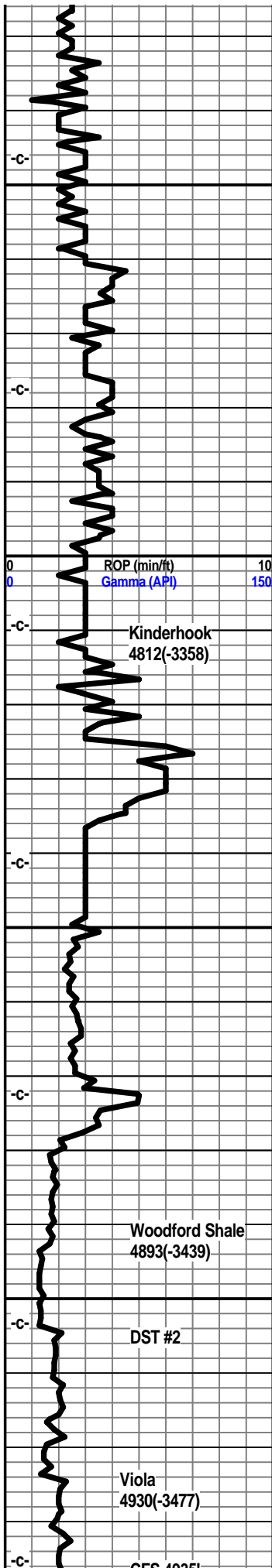
Dolo, tan, grey, xln, dense, cherty, weathered, some light brown staining, slight odor, grey green splintery shales.

Dolo, grey-white, tan, xln, dense, weathered cherts, slight scattered staining, very faint odor, grey-green shales.

Dolo, tan-white, grey, xln, dense, grey shales, some cherts, decreasing amounts of weathered chert.

Dolo, grey-white, fxln, dense, grey shales, tan to off-white chert, faint staining.





Dolo, tan, grey-white, xln, dense, grey-green splintery shales, tan cherts.

Dolo, grey-white, grey, xln, dense, sharp off-white chert, some tan, grey shales.

Dolo, grey-white, grey, xln, dense, grey shales, tan to off-white fresh sharp cherts.

Dolo, light grey, grey, tan, xln, dense, tan to off-white sharp cherts, grey green shales.

Dolo, grey-white, xln, dense, tan-white chert, fresh, sharp, grey shales.

Dolo, grey-white, xln, dense, tan to cream limestone fragments, tan to fresh cherts, grey-green shale.

Limestone, tan-white, buff, xln, dense, cherty, chalky.
Shale, green, firm.

Limestone, tan, cream-white, xln, dense, trace tan chert, subchalky in part, glauc.

Shale, dark green, silty, traces of pyrite.

Shale, dark green, grey.

Shale, grey, dark grey, silty, pyritic.

Shale, dark grey, pyrite

Shale, dark grey, grey, silty, pyritic.

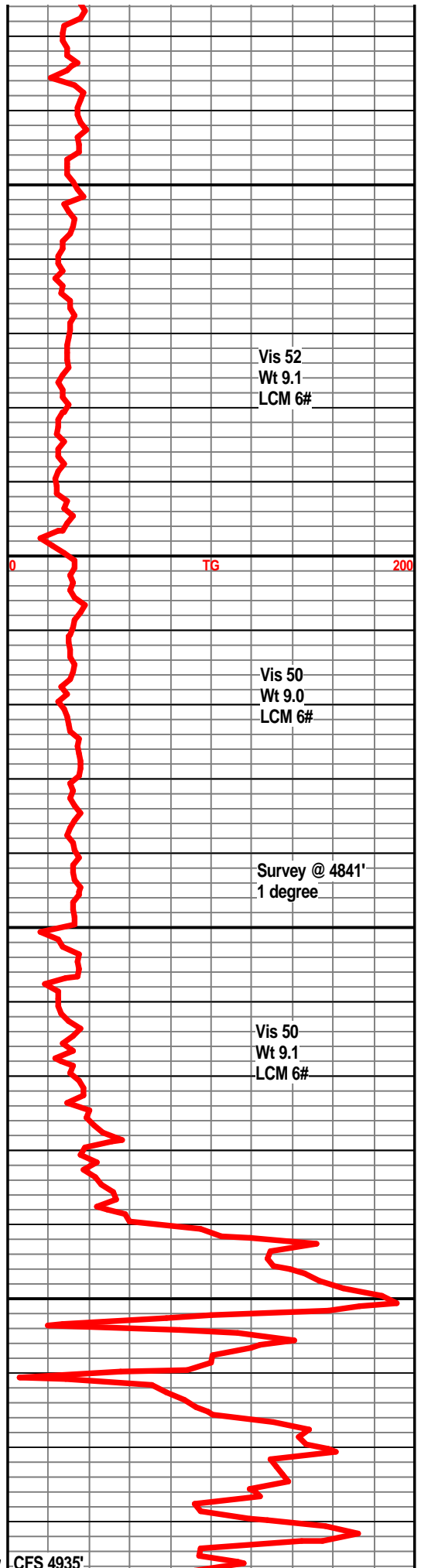
Shale, grey-black, carb, gas bubbles.

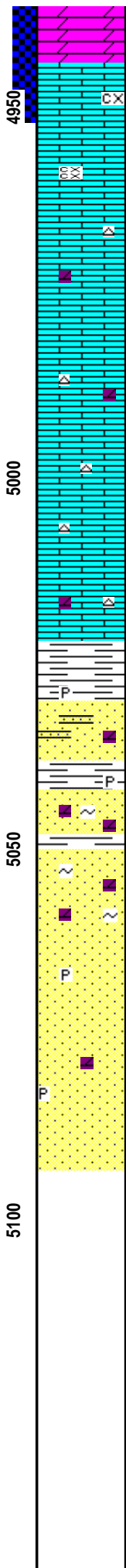
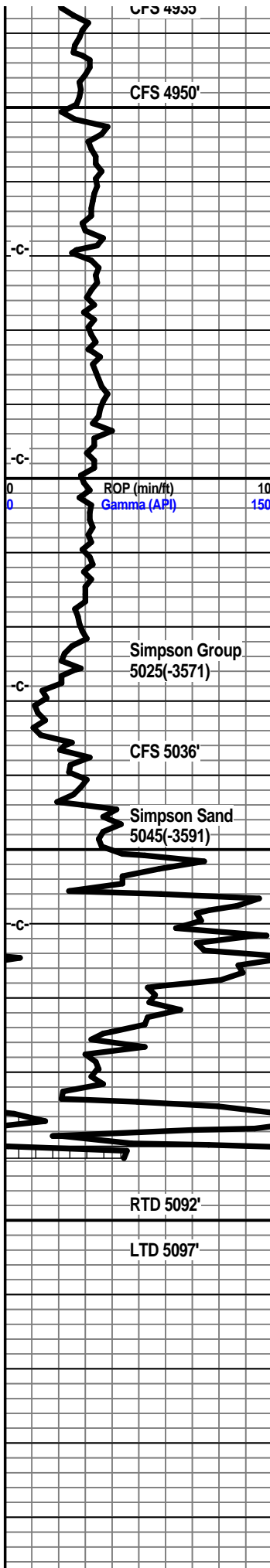
Shale, grey-black, coffee brown, carb, show gas bubbles, spotty fluor on spores.

Shale, grey-black, coffee brown, gas bubbles, pyritic in part.

Sandstone, grey-white, poorly sorted well cemented, dirty, traces of pyrite, trace of scummy oil, no odor, spotty fluor.

Dolomite, cream-white, white xln, trace xln porosity, no odor, slight show light oil, faint odor when crushed, spotty





fluor.
Dolomite, white, cream-white, xln, xln porosity, slight show free oil, very faint odor, fair show oil under uv light, fair fluor.

Limestone, grey-white, white, xln, trace xln porosity, chalky, dull fluor.

Limestone, tan-white, grey, xln, dense, chalky in part.

Limestone, tan-white, tan, xln, dense, tan sharp chert, sl dolo in part.

Limestone, tan, xln, dense, granular, tan cherts, trace chalky, sl. dolo.

Limestone, tan-white, tan, xln, dense, cherty in part, tan sharp chert.

Limestone, tan, tan-white, xln, dense, tan chert, granular texture.

Shale, dark green, teal green, trace pyrite.

Sandstone stringers, grey-white, white, sa to sr, well cemented, trace friable, no visible shows, no odor, no fluor, trace pyrite, dolo in part.

Sandstone, grey-white, sa, well cemented, glauc, pyrite, dolo, no visible shows.

Sandstone, clear to white, Some grey-white, SA to SR, well cemented in part, dolo, glauc, traces of pyrite, very faint show dark oil, one rock with slight fluor., no odor

Sandstone, clear to white, SA to SR, well sorted, friable in part, some well cemented, dolo in part, pyritic, glauc, no visible shows, no odor, no fluor.

Sandstone, clear to white, fair sorting, SA to SR, friable in part, mostly well cemented, glauc, traces of pyrite, no visible shows, no odor, no fluor.

