



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1071193
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
-----------------------------------	-----------------	---

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: _____

1071193

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift 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 <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Ottley #1-10
Doc ID	1071193

Tops

Name	Top	Datum
Anhydrite	2334	+519
Base Andydrite	2356	+497
Heebner	3883	-1030
Lansing	3820	-1067
Stark Sh	4163	-1310
Marmaton	4266	-1413
Pawnee	4362	-1509
Cherokee	4446	-1593
Mississippi	4541	-1688



CONSOLIDATED
Oil Well Services, LLC



TICKET NUMBER 28229
LOCATION Oakley 1/3
FOREMAN Walt Dunkel

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
9-24-11	4802	Oakley 1-10	10	14S	31W	Goose	
CUSTOMER <u>Larson Engineering</u>		Mailing Address <u>Oakley S. to Goover</u>		TRUCK #	DRIVER	TRUCK #	DRIVER
CITY		STATE	ZIP CODE	<u>5E</u>	<u>463</u>	<u>miles Shaw</u>	
				<u>73</u>	<u>439</u>	<u>Cory Davis</u>	
				<u>12E</u>			
				<u>S.S.</u>			

JOB TYPE Surface-9 HOLE SIZE 12 1/4 HOLE DEPTH 261' CASING SIZE & WEIGHT 8 5/8 - 20 #
 CASING DEPTH 261 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 15-20'
 DISPLACEMENT 15 1/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE 5 BPM

REMARKS: Safety Meeting Rig up on H&D #2, give on bottom
mix 175 sks com, 3% CC-2% cel, Displace 15 1/4 BBL H2O
shut in

Cement D&O Give

11:00

Thank You
Walt & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54013	1	PUMP CHARGE	1,025.00	1,025.00
5406	20	MILEAGE	5.00	100.00
11043	175 sks	Class A Cement	16.80	2940.00
1102	495	Calcium Chloride	.84	415.80
11088	330	Bentonite Cel	.24	79.20
5407	8.23	Ton Mileage Delivery	158	410.00
				4,970.00
		<u>Less 15% Disc</u>		745.50
				4,224.50
			SALES TAX	235.04
			ESTIMATED TOTAL	4,459.54

Ravin 3737

AUTHORIZATION Brod Rolas TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering, Inc

10-14s-31w Gove Co KS

562 W State Rd 4
Olmitz KS 67564

Ottley #1-10

Job Ticket: 43896

DST#: 1

ATTN: Vern Schrag

Test Start: 2011.10.01 @ 09:29:00

GENERAL INFORMATION:

Formation: **LKC- 'K'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:28:45

Time Test Ended: 14:19:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 48

Interval: 4163.00 ft (KB) To 4207.00 ft (KB) (TVD)

Reference Elevations: 2853.00 ft (KB)

Total Depth: 4207.00 ft (KB) (TVD)

2843.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8646 Outside

Press @ RunDepth: 18.38 psig @ 4164.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.01

End Date:

2011.10.01

Last Calib.: 2011.10.01

Start Time: 09:29:00

End Time:

14:19:15

Time On Btm: 2011.10.01 @ 11:28:30

Time Off Btm: 2011.10.01 @ 12:36:00

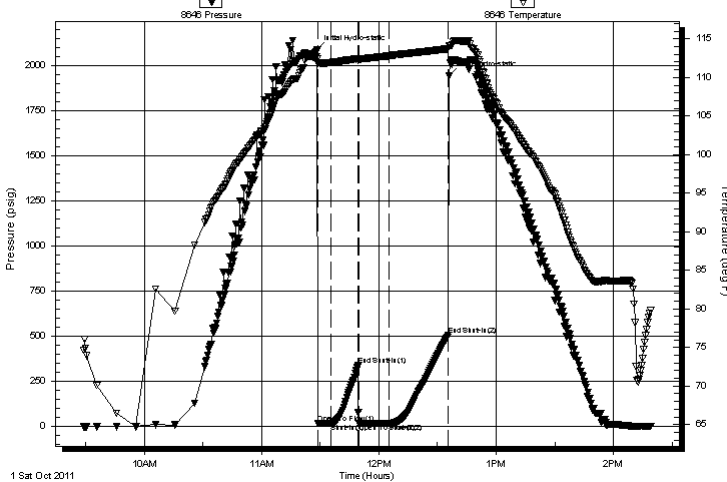
TEST COMMENT: IF- Weak Surface Blow

IS- No Blow

FF- No Blow

FS- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2087.30	112.45	Initial Hydro-static
1	18.26	111.84	Open To Flow (1)
7	19.13	111.95	Shut-In(1)
21	337.97	112.43	End Shut-In(1)
22	18.75	112.31	Open To Flow (2)
37	18.38	112.82	Shut-In(2)
67	505.00	113.73	End Shut-In(2)
68	1942.21	114.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100% _m	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc
562 W State Rd 4
Olmitz KS 67564
ATTN: Vern Schrag

10-14s-31w Gove Co KS
Ottley #1-10
Job Ticket: 43896 **DST#: 1**
Test Start: 2011.10.01 @ 09:29:00

Mud and Cushion Information

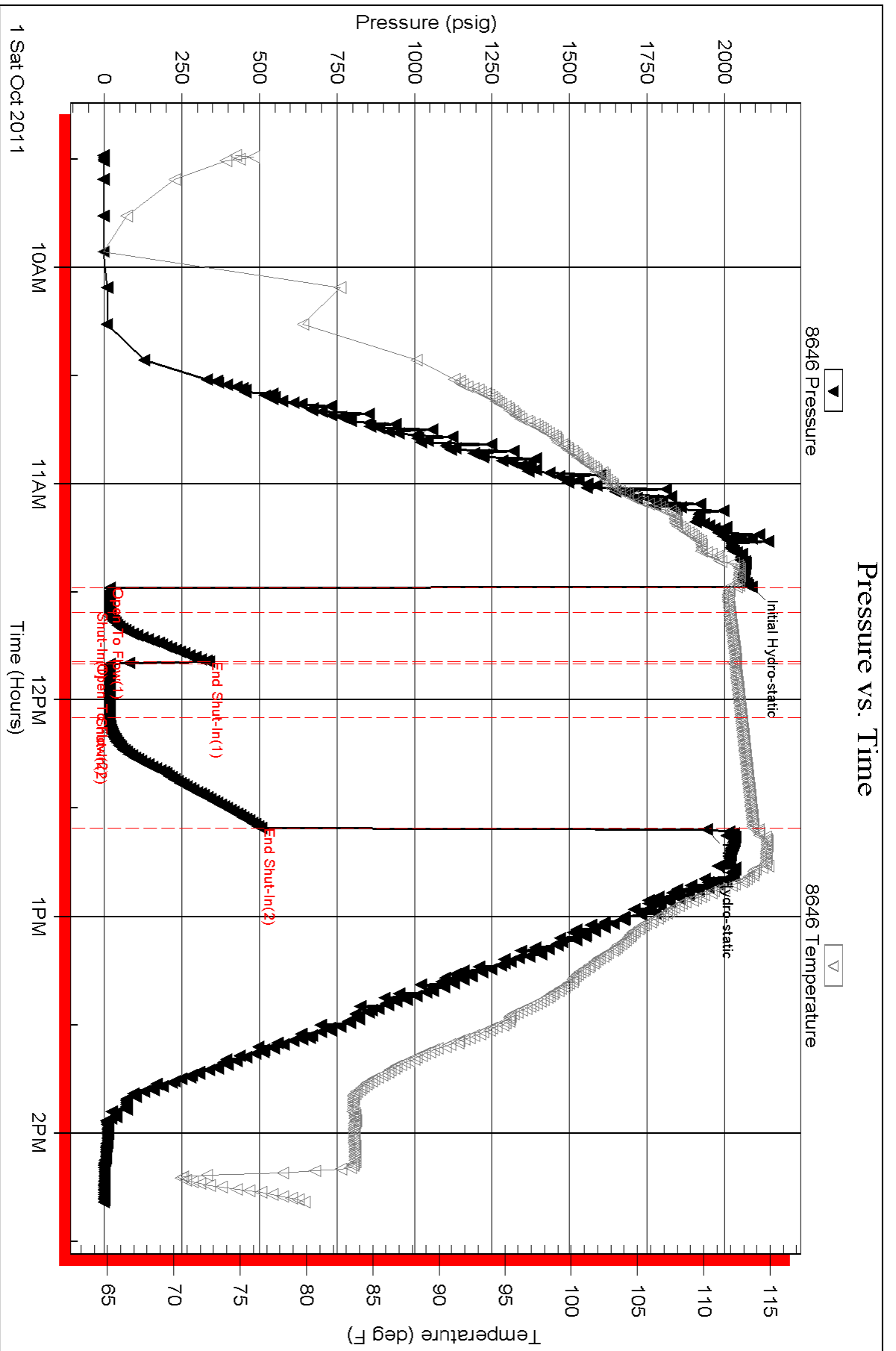
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.60 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1700.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%m	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc
 562 W State Rd 4
 Olmitz KS 67564
 ATTN: Vern Schrag

10-14s-31w Gove Co KS

Ottley #1-10

Job Ticket: 43897

DST#: 2

Test Start: 2011.10.03 @ 07:44:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:33:45
 Time Test Ended: 13:15:30
 Interval: **4444.00 ft (KB) To 4513.00 ft (KB) (TVD)**
 Total Depth: 4513.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 48
 Reference Elevations: 2853.00 ft (KB)
 2843.00 ft (CF)
 KB to GR/CF: 10.00 ft

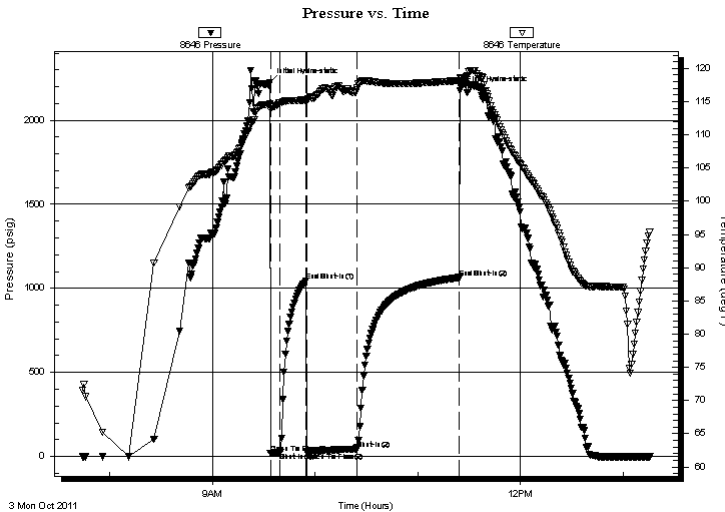
Serial #: 8646

Outside

Press @ Run Depth: 46.03 psig @ 4445.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.10.03 End Date: 2011.10.03 Last Calib.: 2011.10.03
 Start Time: 07:44:00 End Time: 13:15:30 Time On Btm: 2011.10.03 @ 09:33:30
 Time Off Btm: 2011.10.03 @ 11:24:45

TEST COMMENT: IF- Weak Surface Blow Built to 1/4"
 IS- No Blow
 FF- Weak Surface Blow Built to 1/2"
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2224.28	114.62	Initial Hydro-static
1	17.01	113.79	Open To Flow (1)
6	24.40	114.88	Shut-In(1)
21	1042.72	115.24	End Shut-In(1)
22	26.48	114.96	Open To Flow (2)
51	46.03	116.80	Shut-In(2)
111	1064.39	118.17	End Shut-In(2)
112	2176.04	118.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	100% mud	0.30
0.00	Few Oil Spots in Tool	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

10-14s-31w Gove Co KS

562 W State Rd 4
Olmitz KS 67564

Ottley #1-10

Job Ticket: 43897

DST#: 2

ATTN: Vern Schrag

Test Start: 2011.10.03 @ 07:44:00

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:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	100% mud	0.295
0.00	Few Oil Spots in Tool	0.000

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

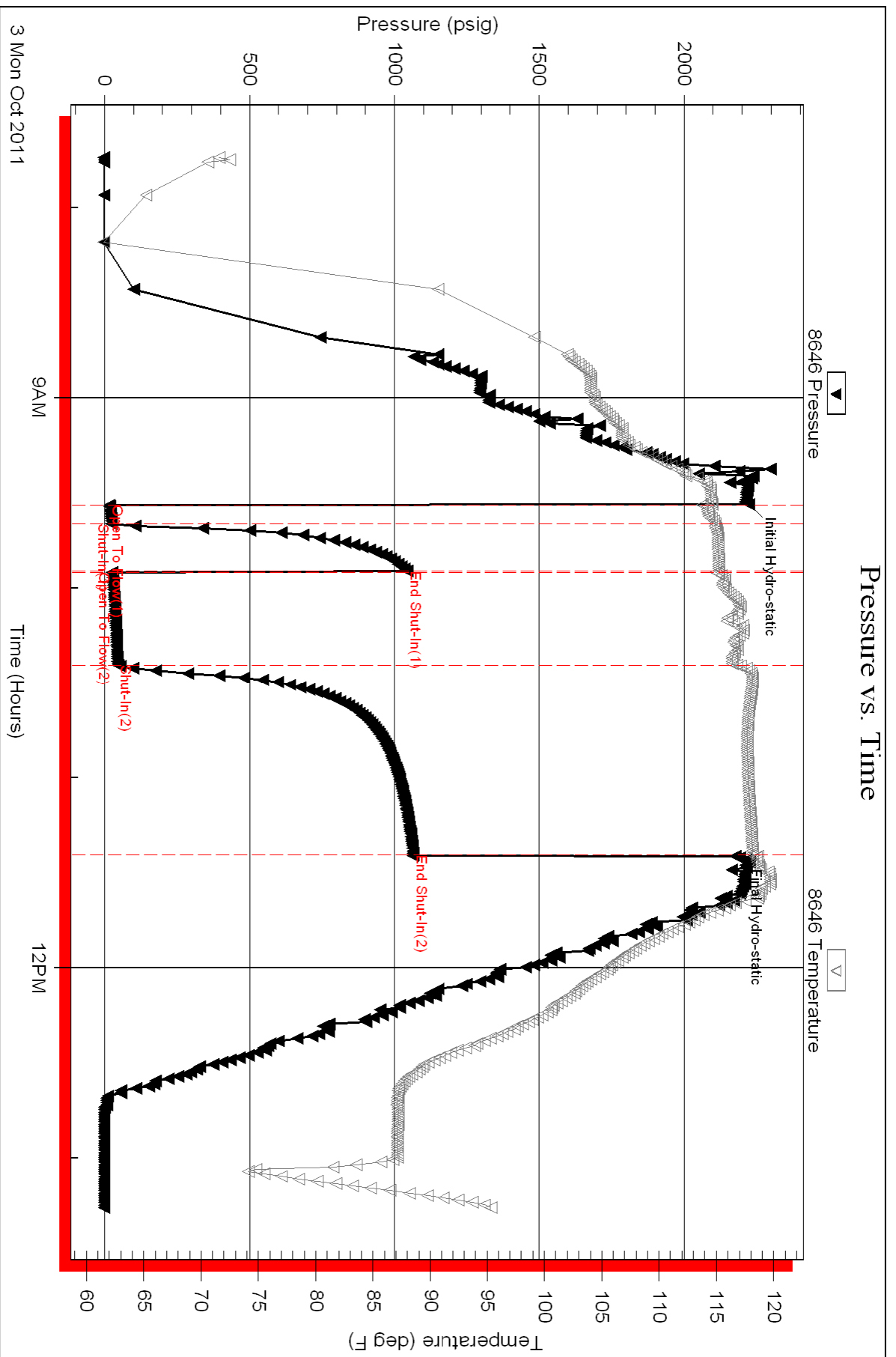
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc
 562 W State Rd 4
 Olmitz KS 67564
 ATTN: Vern Schrag

10-14s-31w Gove Co KS

Ottley #1-10

Job Ticket: 43898

DST#: 3

Test Start: 2011.10.04 @ 03:00:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:35:00
 Time Test Ended: 09:37:30
 Interval: **4507.00 ft (KB) To 4573.00 ft (KB) (TVD)**
 Total Depth: 4573.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 48
 Reference Elevations: 2853.00 ft (KB)
 2843.00 ft (CF)
 KB to GR/CF: 10.00 ft

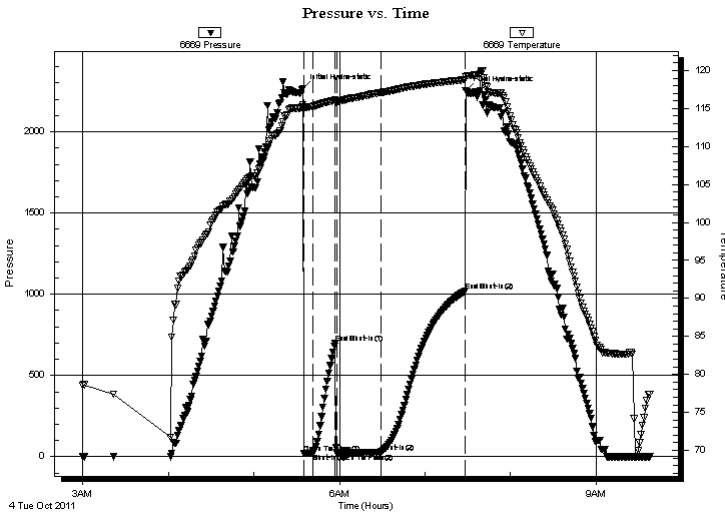
Serial #: 6669

Inside

Press @ RunDepth: 28.39 psig @ 4508.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.10.04 End Date: 2011.10.04 Last Calib.: 2011.10.04
 Start Time: 03:00:00 End Time: 09:37:30 Time On Btm: 2011.10.04 @ 05:34:30
 Time Off Btm: 2011.10.04 @ 07:28:30

TEST COMMENT: IF- Weak Surface Blow 1/4"
 IS- No Blow
 FF- Weak Surface Blow
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2267.00	115.51	Initial Hydro-static
1	19.33	115.15	Open To Flow (1)
7	22.12	115.27	Shut-In(1)
23	697.20	116.09	End Shut-In(1)
24	23.57	115.87	Open To Flow (2)
55	28.39	117.12	Shut-In(2)
114	1018.56	118.80	End Shut-In(2)
114	2254.77	119.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	1% oil 99% m	0.20

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc

10-14s-31w Gove Co KS

562 W State Rd 4
Olmitz KS 67564

Ottley #1-10

Job Ticket: 43898

DST#: 3

ATTN: Vern Schrag

Test Start: 2011.10.04 @ 03:00:00

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:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	1% oil 99% m	0.197

Total Length: 40.00 ft Total Volume: 0.197 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

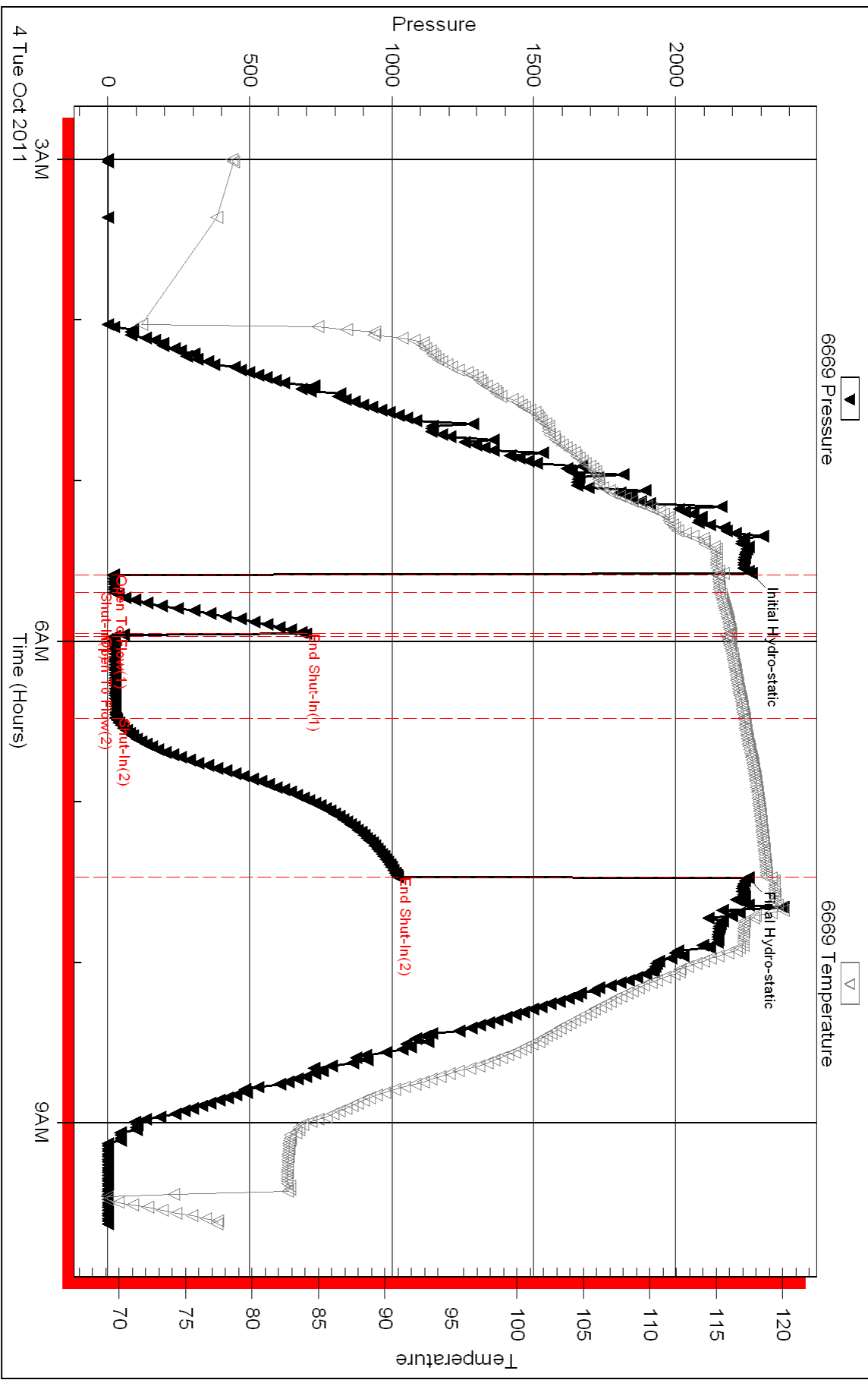
Serial #:

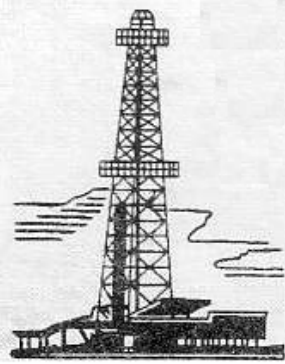
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: OTTLEY #1-10
Location: SE NE SE NW Sec. 10-14s-31w
Licence Number: API: 15-063-21932
Spud Date: September 24, 2011
Surface Coordinates: 1678' FNL & 2527' FWL

Region: Gove Co., KS
Drilling Completed: October 04, 2011

Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 2843' K.B. Elevation (ft): 2853'
Logged Interval (ft): 3600' To: RTD Total Depth (ft): 4641'
Formation: Mississippi
Type of Drilling Fluid: Chemical Premix (Displaced)

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

OPERATOR:

Company: LARSON ENGINEERING, INC.
Address: 562 West State Road 4
Olmitz, KS 67564-8561

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #2

DP 4.5" XH (16.6#); DC 6.25 x 2.25" x 494.80', Kelly + Bit 42.00', Tool Joint 5.5" ; Bit: JZ QX20, 7-7/8", jets 14-14-14; WOB 35k; Kelly Bushing 10' above ground level; Doug Roberts (tool pusher).

SURFACE CASING:

Set 8-5/8" (20#) casing at 258' (KB)

CIRCULATION SYSTEM:

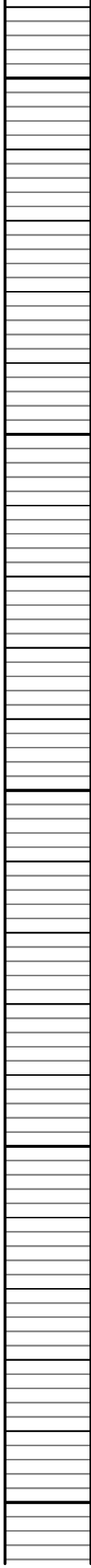
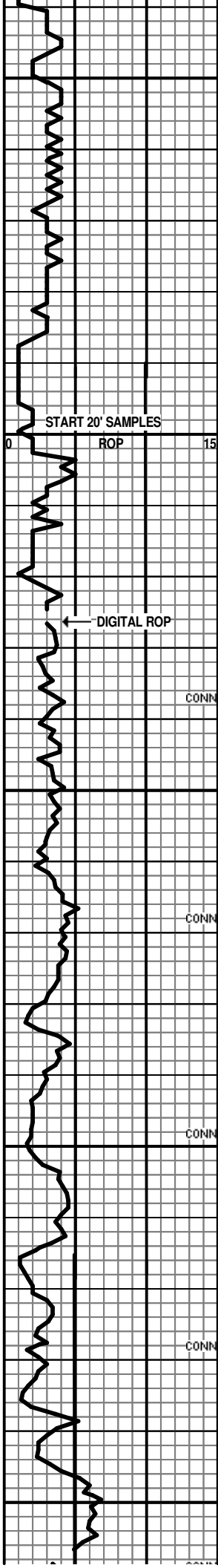
Pump: National K-380A, duplex, 6 x 14, 2" rod, 55 spm, about 300 gpm (85%). SPP: 725-900 psi; Chemical, premix, displaced, earth pits; Mud-Co/Service Mud, Inc., Tyler Lang.

GAS DETECTION SYSTEM:

Unit USB-1208LS-213 portable hot-wire, Delphian 3.0 volt catalytic bead detector.

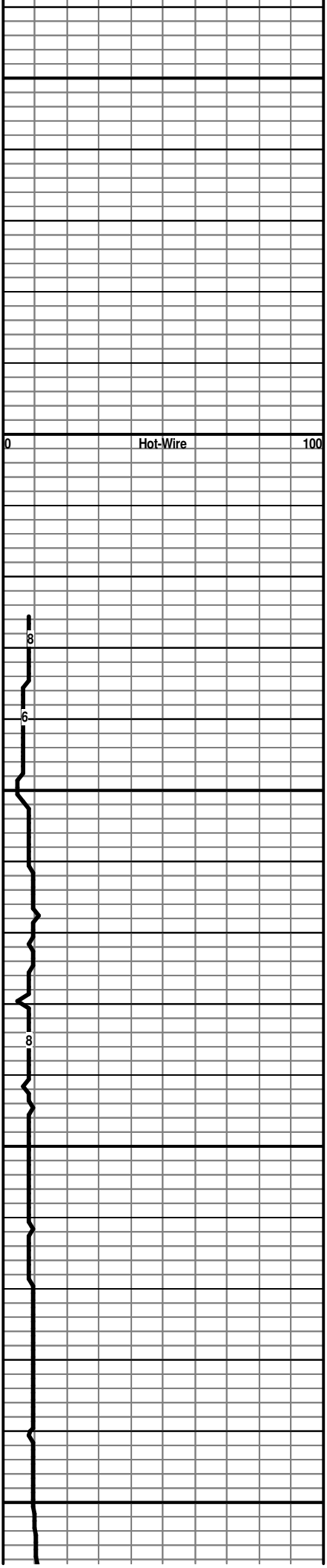
DRILL STEM TEST #1:

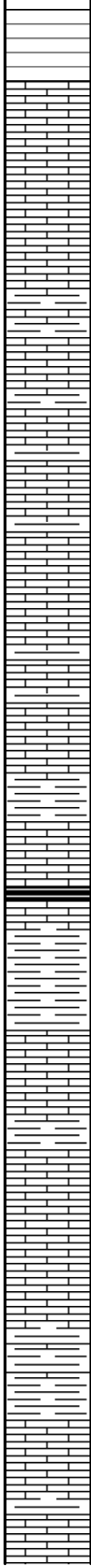
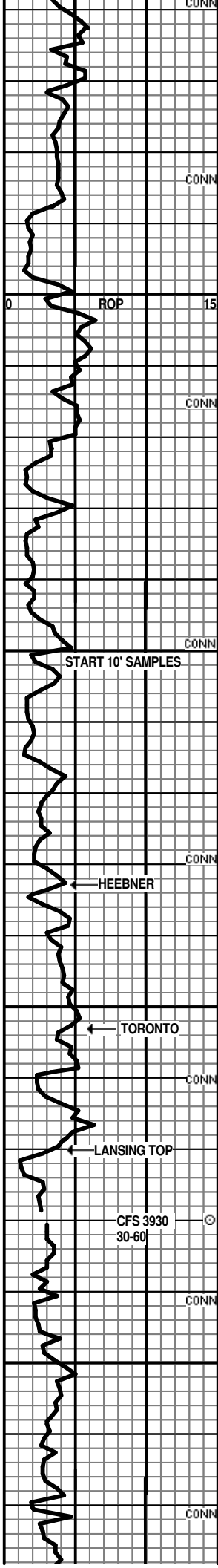
Zone: Kans. City "K": Test Interval: 4163-4207' (44' anchor); Blow: weak surf IFP, no blow FFP; Time Periods: 5-15-15-30; Recovery: 10' mud, no show; Pressures: HP: 2087-1942; SIP: 337-505; FP: 18-19, 18-18; BHT: 114 deg F; dual packers, jars, joints, 123' collars; Trilobite Testing, Inc., Will MacLean.



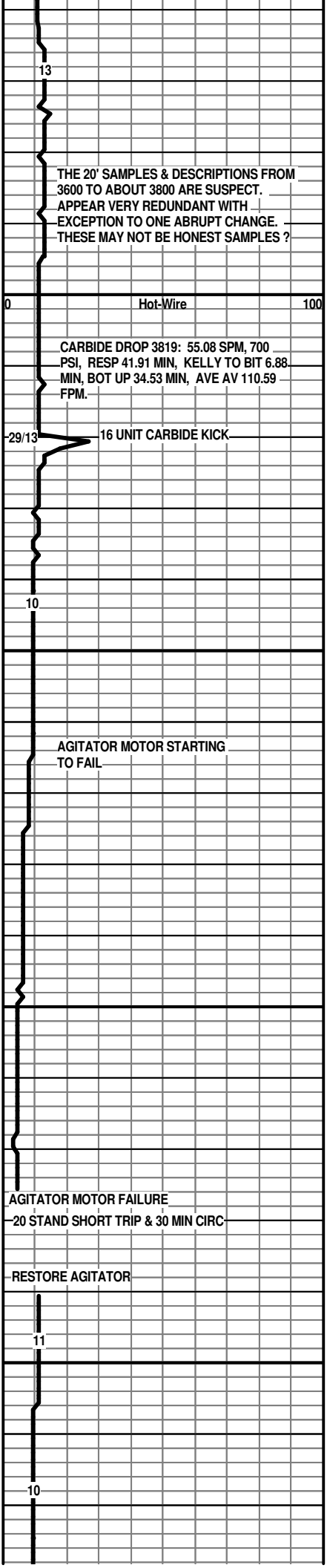
3550
3600
3650
3700
3750

LS: LT BROWN, LT GRAYISH BROWN; VF-XTAL; DIRTY; NO VISIBLE POROSITY; NO SHOWS;
SHALE: GREEN, GREENISH GRAY;
LS: GRAYISH BROWN; VF-XTAL; DENSE; SHELL FRAGS; NO VISIBLE POROSITY; NO SHOWS;
LS: LT-BROWN, GRAISH BROWN; VF-XTAL; DENSE; NO VISIBLE POROISTY; NO SHOWS;
LS: GRAYISH BROWN; VF-XTAL; SHALEY; NO VISIBLE POROSITY; NO SHOWS;
LS: LT-BROWN; VF-XTAL; SLI GRANULAR; CHALKY IN PART; NO APPARENT POROISTY; NO SHOWS;
LS: LT BROWN; VF-XTAL; SLI GRANULAR; FOS; POOR INT GRANULAR POROSITY; NO SHOWS;
LS: LT BROWN; VF-XTAL; SLI OOLITIC; SLI FOS; ROUGH; TIGHT FINE VUGULAR POROISTY; NO SHOWS;
LS: LT-BROWN; VF-XTAL; FINELY GRANULAR; CHALKY IN PART; POOR APPARENT POROSITY; NO SHOWS;





3800
 LS: LT-MED BROWN; VF XTAL; CHALKY IN PART; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT-BROWN; VF-XTAL; FINELY GRANULAR; ROUGH; SOME LOOKS RE-XTALIZED; FAIR VUG POROSITY; NO SHOWS;
 LS: LT BROWN; VF-XTAL; DENSE; NO VISIBLE POROSITY; NO SHOWS;
 LS: AS ABOVE;
 LS: LT-BROWN; VF XTAL; ROUGH TEXTURED; FAIR VUGULAR POROSITY; NO SHOWS;
 LS: AS ABOVE;
 LS: LT-BROWN, LT GRAYISH BROWN; VF-XTAL; CHALKY; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT BROWN; VF-XTAL; CHALKY IN PART; POOR VUGULAR POROSITY; NO SHOWS;
 LS: LT GRAYISH BROWN; VF-XTAL; POOR VUGULAR POROSITY; NO SHOWS;
HEEBNER 3883 (-1030)
 SHALE: BLACK; 3900 SAMPLE.
 LS: LT-MED GRAYISH BROWN; VF-XTAL; DENSE; BLK SH INCLUSIONS IN PART; NO VISIBLE POROSITY; NO SHOWS;
 SHALE & SILTST: GREENISH GRAY;
 3900
 LS: V-LT BROWN; VF-XTAL; DENSE; SLI CHERTY; DULL YEL MINERAL FLUOR; NO VISIBLE POROSITY; NO SHOWS;
 SHALE: GRAY, GREEN
LANSING 3820 (-1067)
 (Corrected Top)
 LS: LT BROWN; VF-XTAL; FINE-MED OOLITE; GRAIN SUPTD; POOR INT OOLITIC POROSITY; DULL YEL MINERAL FLUOR; NO SHOWS. TRC 30 MIN, INCR 60 MIN.
 LS: LT-BROWN; VF-XTAL; CHALKY IN PART; NO APPARENT POROSITY; NO SHOWS;
 3950
 SHALE: GRAY, GREEN;
 LS: V-LT BROWN; VF-XTAL; SLI CHALKY; 1 CHIP W/PIN POINT POROSITY & DK BRN PIN POINT STAIN; NO OIL OR ODOR; 3980.
 LS: MOSTLY LT BROWN, SOME MED BROWN; VF-XTAL; DENSE; SLI CHERTY; SLI GRANULAR IN PART; NO VISIBLE POR; NO SHOWS.



THE 20' SAMPLES & DESCRIPTIONS FROM 3600 TO ABOUT 3800 ARE SUSPECT. APPEAR VERY REDUNDANT WITH EXCEPTION TO ONE ABRUPT CHANGE. THESE MAY NOT BE HONEST SAMPLES ?

Hot-Wire

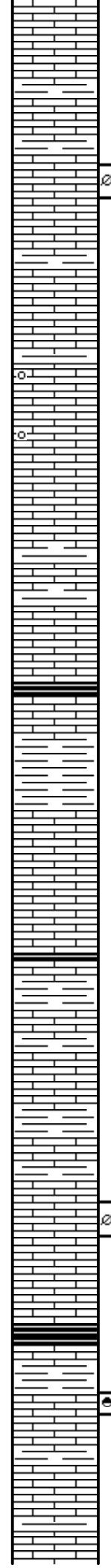
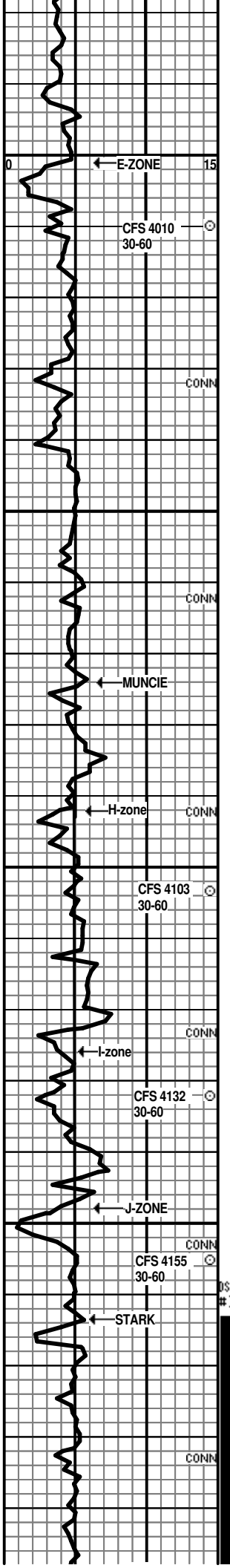
CARBIDE DROP 3819: 55.08 SPM, 700 PSI, RESP 41.91 MIN, KELLY TO BIT 6.88 MIN, BOT UP 34.53 MIN, AVE AV 110.59 FPM.

16 UNIT CARBIDE KICK

AGITATOR MOTOR STARTING TO FAIL

AGITATOR MOTOR FAILURE - 20 STAND SHORT TRIP & 30 MIN CIRC

RESTORE AGITATOR



SHOWS;

LS: AS ABOVE;

LS: LT BROWN; VF XTAL; DENSE; NO VISIBLE POROSITY; NO SHOWS;

LS: LT BROWN; VF-XTAL; CHALKY IN PART; INCLUDES SEMI TRANS CHERT; ROUGH TXTURE IN PART W/ FINE VUGULAR POROSITY; NO SHOWS;

LS: LT BROWN; VF XTAL; MOSTLY DENSE; CHALKY IN PART; TRC CHERT; NO VISIBLE POROSITY; NO SHOWS;

LS: LT BROWN; VF XTAL; CHALKY IN PART; TRC FINE OOMOLDIC POROISTY; NO SHOWS;

LS: LT BROWN, VF-XTAL; DENSE TO CHALKY IN PART; PLATEY; NO VISIBLE POROSITY; NO SHOWS;

LS: LT-BROWN, LT GRAY; VF-XTAL; DENSE, PLATEY; NO VISIBLE POROSITY; NO SHOWS;

LS: AS ABOVE;

MUNCIE CREEK 4074 (-1221)
 SHALE: BLACK; 4090.
 LS: MED-DK GRAYISH BROWN; VF-XTAL; SLI FOS; TRC DARK CHERT; SCATTERED FINE VUG POROSITY W/ SPOTTED STAIN; CRUSH FEW MICRO-DROPS OIL; NO ODOR; 4090.

SHALE: GRAYISH BROWN; LIMEY;

LS: LT BROWN; MIC-VF XTAL; CHALKY IN PART; INCLUDES WHITE, OPAQ CHERT; POOR APPARENT POROISTY; NO SHOWS;

LS: LT-BROWN; VF-XTAL; DENSE; NO VISIBLE POROSITY; NO SHOWS;

SHALE: GRAY, GREEN, MAROON

LS: LT BROWN, LT GRAY; MIC-VF XTAL; DENSE TO CHALKY IN PART; NO VISIBLE POROISTY; NO SHOWS;

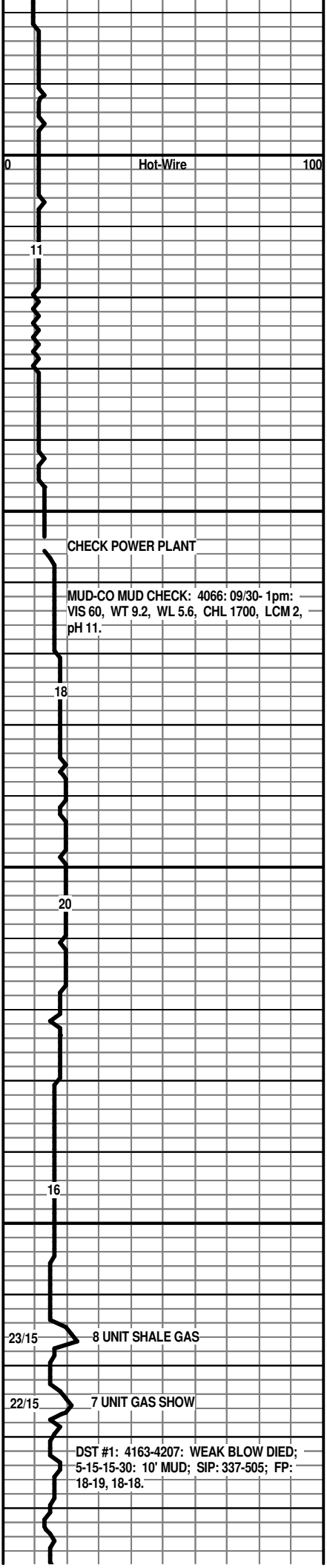
SHALE: GRAYS, GREEN

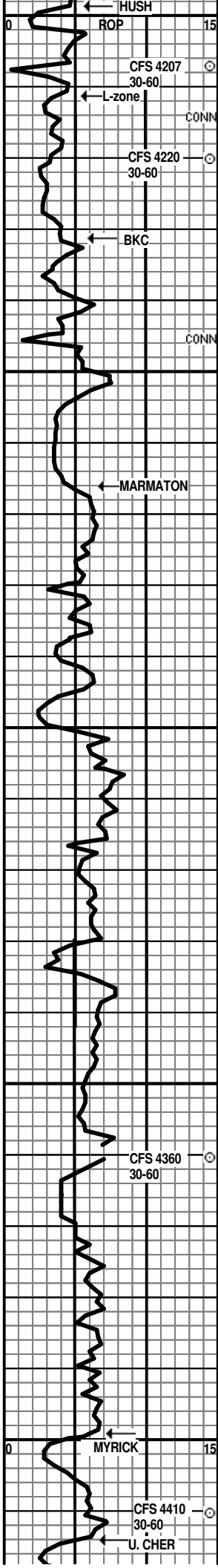
LS: LT-BROWN; VF-XTAL; OOLITIC TO OOMOLDIC; TRC OOLITIC CHERT; FAIR OOMOLDIC POROSITY; NO SHOWS; STARTS 4155-30 MIN, INCR 60 MIN.

STARK SH 4163 (-1310)
 SHALE: BLACK; 4175 SAMPLE.

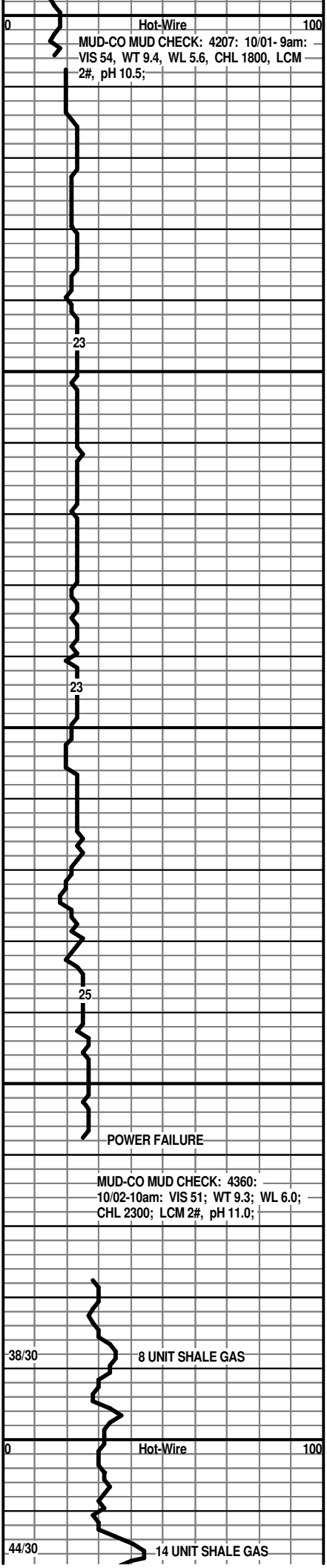
LS: LT GRAY; VF XTAL; MOSTLY DENSE, PLATEY; OOLITIC IN PART; SCATTERED FINE VUG POROSITY W/ SPOTTED PIN POINT, LT BROWN STAIN; BRIGHT YEL FLUOR; CRUSH FEW MICRO-DROPS OIL; NO ODOR; 1-2% 4185; POOR STAINS AT BEST DRY;

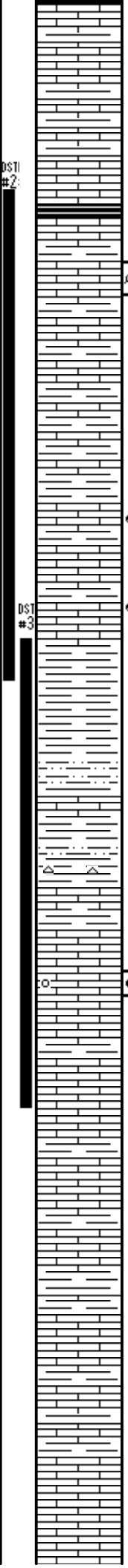
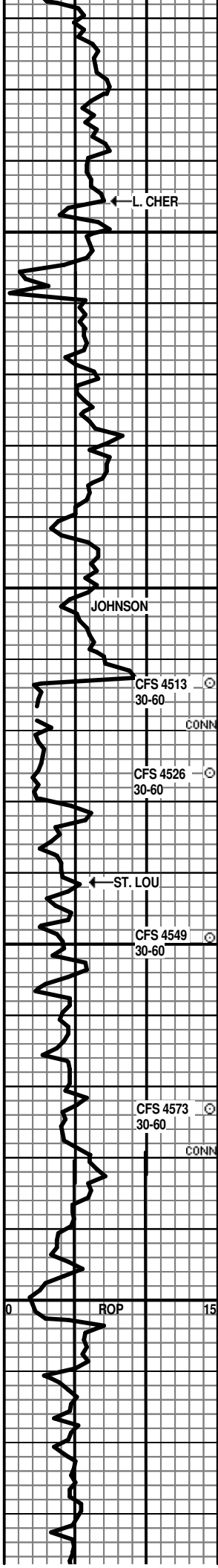
LS: LT-MED GRAYISH BROWN; VF XTAL; MIC-XTAL CHALK IN PART; NO VISIBLE POROSITY; NO SHOWS;



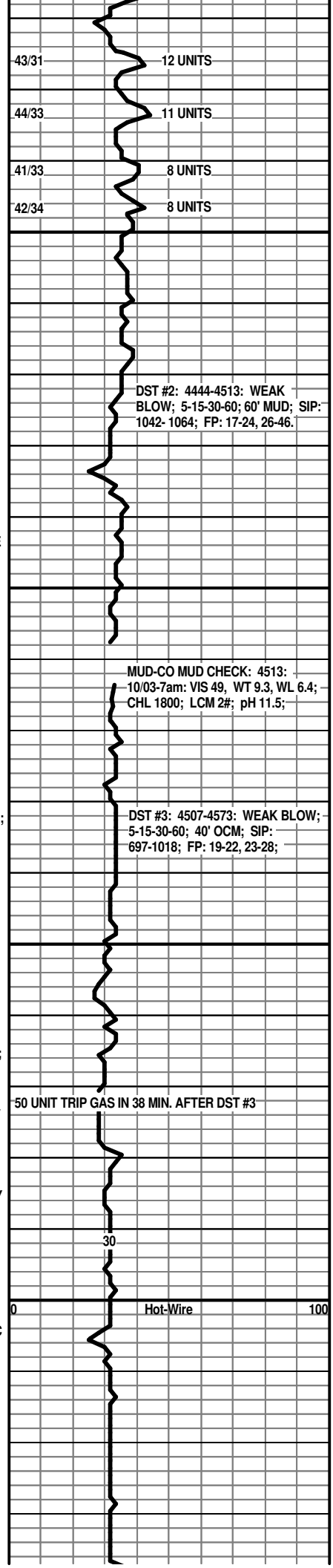


4200
 SHALE: BLACK; 30 MIN.
 MID CRK: LS: MED TO DK BROWN; VF-XTAL; DENSE; NO APPARENT POROSITY; NO SHOWS;
 SHALE: GRAYS
 MARL: WHITE; V-SOFT;
 LS: LT-MED BROWN; VF-XTAL; MED-GRANULAR; SLI CHERT; TIGHT INT GRAN POROSITY AT BEST; NO SHOWS; 30 MIN.
 LS: LT-MED BROWN; VF-XTAL; FINELY GRANULAR; INCLUDES GRAY, OPAQ CHERT; POOR APPARENT POROSITY; DULL FLUOR; NO SHOWS;
 LS: LT BROWN, LT GRAYISH BROWN; VF-XTAL; SLI SHALEY; NO VISIBLE POROSITY; NO SHOWS;
 LS: GREENISH-BROWN; VF-XTAL; V-SILTY; POOR APPARENT POROSITY; NO SHOWS; 4260.
 SILTST: CALCAREOUS; GREEN;
MARMATON 4266 (-1413)
 LS: LT BROWN; VF-XTAL; MOSTLY DENSE; SOME CHALK; FINELY GRANULAR IN PART; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT BROWN; VF-XTAL; DENSE; SLI GRANULAR IN PART; NO VISIBLE POROSITY; NO SHOWS;
 SHALE: MAROON; SOFT; 4310 WASHES RED;
 LS: LT BROWN, LT GRAY; VF XTAL; MED-CRS GRAIN SUPPORTED OOLITE; V-TIGHT INT OOL POROSITY AT BEST; NO SHOWS; 4310, 4320;
 SHALE: GREEN, GRAY; CALCAREOUS;
 SHALE: GRAY, MAROON & GREEN; 4350.
 LS: LT-BROWN; MIC-VF XTAL; MOST DENSE, PLATEY; CHALKY IN PART; NO VISIBLE POROSITY; NO SHOWS;
 SHALE: BLACK & GREEN, MOTTLED IN PART; 60 MIN WASHES BLACK;
PAWNEE 4362 (-1509)
 LS: LT-BROWN; MIC-VF XTAL; DENSE TO CHALKY; CONTACT W/ MUCH LT GRAY, OPAQ CHERT; NO VISIBLE POROSITY; DULL FLUOR; NO SHOWS; 4380.
 LS: LT-MED BROWN; VF-XTAL; TRC OOLITE; TRC FOS; LACKS CHERT; NO VISIBLE POROSITY; NO SHOWS; 4390.
 SHALE: BLACK; 4400.
 LS: DK BRN; DENSE; CHERT; NO SHOW.
 SHALE: GREEN; PYRITIC; 4410 STOP SAMPLE.
 LS: WHITE, LT GRAY; MIC-VF XTAL; MUCH CHALK; NO VISIBLE POROSITY; NO FLUOR; NO SHOWS; 30 MIN.
 LS: LT GRAY; VF-XTAL; DENSE; PLATEY; NO VISIBLE POROSITY; NO SHOWS; 60 MIN.
 SHALE: BLACK & GREEN; 4430.





4450
 LS: LT-MED GRAYISH BROWN; VF-XTAL; DENSE; SLI CHALKY; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT-MED GRAYISH BROWN; VF-XTAL; DENSE; NO VISIBLE POROSITY; NO SHOWS;
CHEROKEE 4446 (-1593)
 SHALE: BLACK; 4460.
 LS: LT GRAY; MIC-VF XTAL; DENSE TO SLI CHALKY; OOLITIC IN PART; MINOR CHALK; POOR APPARENT POROSITY; DULL FLUOR; NO SHOWS;
 LS: LT-GRAY; MIC-VF XTAL; SLI CHALKY; NO SHOWS; WITH MUCH GREEN, GRAY & DK GRAY SHALE;
 LS & SH AS ABOVE;
 LS: LT-GRAY; MIC-VF XTAL; DENSE TO SLI CHALKY; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT-GRAY; MIC-VF XTAL; FEW CHIPS FINE VUGULAR POROSITY W/PIN POINT STAINS; CRUSH SLI SHOW OIL; NO ODOR; DULL FLUOR; 4510, 4513.
B/ CHEROKEE 4508 (-1655)
 SHALE: VARI-COLOR; SANDY; TRC SILTSTONE; TRC COARSE PYRITE;
 SHALE: VARI-COLOR AS ABOVE BUT W/TRC QUARTZ SAND IN 60 MIN.
 SHALE: VARI-COLOR AS ABOVE; WITH TRACE HARD SAND; NO SHOW; 4540.
 SHALE: VARI-COLOR; COARSE PYRITES; TRC PYRITIZED WOOD; SILTY-SANDY IN PART; TRC FINE SAND; NO SHOWS; 4549.
 SHALE: VARI-COLOR: WITH MUCH WEATHERED CHERT; NO SHOWS; 4549-30 MIN.
MISSISSIPPI 4541 (-1688)
 (Corrected Top)
 LS: LT-BROWN, CREAM; VF-XTAL; SLI CHALKY; SLI OOL; NO VIS POR; N.S., TRC 30 MIN, INCR 60 MIN.
 LS: LT-BROWN, CREAM; VF-XTAL; FEW CHIPS OF MED OOL IN RELIEF & WITH INT OOLITIC STAIN, LOW INTENSITY YEL FLUOR & CRUSH LT BRN OIL; NO ODOR; 4570.
 LS: LT-BROWN; VF-XTAL; DENSE TO CHALKY IN PART; SLI OOL; SLI FOS; POOR APPARENT POROSITY; NO SHOWS; WITH GRAY & GREEN SHALES;
 LS: LT-BROWN; VF-XTAL; MED GRANULAR; DENSE TO CHALKY IN PART; SLI OOLITIC; TRC INT OOL & FINE VUG POROSITY W/SLI SHOW OIL; POSSIBLE FLOAT ?; 4590.
 LS: LT-BROWN; VF-XTAL; MED GRANULAR; DENSE, SLI CHALKY IN PART; SLI OOLITIC; POOR APPARENT POROSITY; NO SHOWS; 4600.
 LS: LT-BROWN; MIC-VF XTAL; SLI OOLITIC; VERY CHALKY IN PART; NO APPARENT POROSITY; NO SHOWS;
 LS: LT GRAYISH BROWN; MIC-VF XTAL; DENSE; LITHOGRAPHIC IN PART; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT-BROWN; VF-XTAL; DENSE; NO VISIBLE POROSITY; NO SHOWS;
 LS: LT BROWN; VF XTAL; FINELY GRANULAR IN PART; MINOR CHALK; POOR INT GRAN POROSITY; NO SHOWS;



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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 20, 2012

Thomas Larson
Larson Engineering, Inc. dba Larson Operating
Company
562 W STATE RD 4
OLMITZ, KS 67564-8561

Re: ACO1
API 15-063-21932-00-00
Ottley #1-10
NW/4 Sec.10-14S-31W
Gove 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,
Thomas Larson