KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1058983

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 # 3842
Name: Larson Engineering, Inc. dba Larson Operating Company
Address 1: 562 W STATE RD 4
Address 2:
City: OLMITZ State: KS Zip: 67564 + 8561
Contact Person: Thomas Larson
Phone: (620) 653-7368
CONTRACTOR: License # 33935
Name: H. D. Drilling, LLC
Wellsite Geologist: Vernon Schrag
Purchaser: NCRA

Designate Type of Completion:

- [x] New Well [ ] Re-Entry [ ] Workover
- [x] 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 #:

3/14/2011	3/27/2011	4/18/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-101-22283-00-00
Spot Description:
NE - SW - NW - NW Sec. 11 Twp. 19 S. R. 29 [ ] East [x] West
952 Feet from [x] North / [ ] South Line of Section
379 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [x] NW [ ] SE [ ] SW
County: Lane
Lease Name: Spatz Well #: 3-11
Field Name: Paris North
Producing Formation: Cherokee, L-KC
Elevation: Ground: 2809 Kelly Bushing: 2816
Total Depth: 4657 Plug Back Total Depth: 4610
Amount of Surface Pipe Set and Cemented at: 256 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 2113 Feet
If Alternate II completion, cement circulated from: 2113
feet depth to: 0 w/ 190 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 15600 ppm Fluid volume: 900 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

- [x] **Letter of Confidentiality Received**
  Date: 07/08/2011
- [x] **Confidential Release Date:** 07/07/2013
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** NAOMI JAMES **Date:** 07/11/2011

Side Two

1058983

Operator Name: Larson Engineering, Inc. dba Larson Operating Company Lease Name: Spatz Well #: 3-11

Sec. 11 Twp. 19 S. R. 29 ☐ East ☑ West County: Lane

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Dual Induction
Dual Comp Porosity
Microresistivity

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Heebner Sh	3949	-1133
Lansing	3994	-1178
Pawnee	4472	-1656
Cherokee Sh	4540	-1724
Mississippi	4609	-1793

CASING RECORD ☑ New ☐ 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	12.25	8.625	20	256	Class A	175	2% gel, 3% CC
production	7.875	5.5	15.5	4656	50-50 poz	175	2% gel, 10% salt, 1/2% Halad-1, 1/4#/sk

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
0-2113	SMD	190	1/4#/ sk flocele
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	4587-90, 4382-90, 4313-17	250 gal 15% MCA	4587-90
		250 gal 15% MCA	4282-90
		250 gal 15% MCA	4313-17

TUBING RECORD: Size: 2.375 Set At: 4603 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 4/18/2011

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	90		55		36

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
4313 - 4590

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

ALLIED CEMENTING CO., LLC. 038775

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Great Bend KS

DATE 3-14-11	SEC. 11	TWP. 19	RANGE 29	CALLED OUT	ON LOCATION	JOB START 730pm	JOB FINISH 800 pm
LEASE S Patz	WELL # 3-11		LOCATION Dighton KS 2 South			COUNTY Lane	STATE KS
OLD OR (NEW) (Circle one)			2 west 2½ south East into				

CONTRACTOR H-D Rig 3
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 260
CASING SIZE 8⅝ DEPTH 259.88
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 15.50 BBLS

OWNER Larson

CEMENT
AMOUNT ORDERED 175 SX Class A
3%cc + 2% Gel

EQUIPMENT

PUMP TRUCK CEMENTER Wayne
366 HELPER Bob
BULK TRUCK
341 DRIVER Guss
BULK TRUCK
DRIVER

COMMON	175	@ 16.25	2.843.75
POZMIX		@	
GEL	3	@ 21.25	63.75
CHLORIDE	6	@ 58.20	349.20
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	184	@ 2.25	414.00
MILEAGE	184x35x.11		708.40
		TOTAL	4.379.10

REMARKS:

Pipe on Bottom Break Circulation with Rig mud Shut Down Hook up To Cement line Run 10 BBLS Space- Mix 175 Sx Class A 3% cc +2% Gel Displace 15.50 BBLS fresh water Shut in.

SERVICE

DEPTH OF JOB 259.88
PUMP TRUCK CHARGE 1125.00
EXTRA FOOTAGE @
MILEAGE 70 @ 7.00 490.00
MANIFOLD @
Light weight 70 @ 4.00 280.00
@
TOTAL 1895.00

CHARGE TO: Larson
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@
@
@
@
@
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 [redacted]
DISCOUNT [redacted] IF PAID IN 30 DAYS

PRINTED NAME X LeWayne Tresner

SIGNATURE X LeWayne Tresner

[redacted]

SWIFT Services, Inc.

CHARGE TO: Larson Engineering
ADDRESS
CITY, STATE, ZIP CODE

TICKET 20553

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Ness City KS	3-11	SPATZ	Lane	KS	Dighton	27 MAR 11	
2.	TICKET TYPE ☑ SERVICE ☐ SALES	CONTRACTOR HD Drilling	RIG NAME/NO.	SHIPPED VIA CT	DELIVERED TO location	ORDER NO.	
3.	WELL TYPE oil	WELL CATEGORY Development	JOB PURPOSE cement long string		WELL PERMIT NO.	WELL LOCATION 11-19S-29W	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE TRK 114	30	mi			5 00	150 00
578		1			Pump Charge	1	ea			1400 00	1400 00
327		1			50/50 POZ (2% gel)	205	sk			8 75	1793 75
283		1			salt	1000	lb			0 15	150 00
—		1			gel	300	lb			N/C	N/C
286		1			halad-1	~~700~~		100	lb	7 00	700 00
276		1			flocele			50	lb	1 50	75 00
280		1			flocheck-21	1000	gal			2 50	2500 00
221		1			KCL liquid	2	gal			25 00	50 00
290		1			D-AIR	2	gal			35 00	70 00
419		1			Rotating head rental	5½	in	1	ea	150 00	150 00
581		1			Service Charge	205	sk			1 50	307 50
583		1			Drayage	2923	TM			1 00	292 35

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X T. C. Larson

DATE SIGNED | TIME SIGNED ☐ A.M. ☐ P.M. 1130

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	~~7658 75~~ 7638 60
Lane TAX 6.3%	345 79
TOTAL	7984 39

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 27 MAR 11 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Larson Engineering	3-11	SPATZ	cement long string	20553

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								205 sks 50/50 poz 2% gel, 10# salt 1/2# kolad
								1000 gal flocck
								TD 4655 pipe 4651 5½ jt 42.89'
								PORT COLLAR 2116' 5½"
	1900							on loc TRK 114 - Rig running casing
	2100							Drop ball circulate - ROTATE
	2210	6¾	15				300	Pump 15 bbl KCL flush
		6¾	24				300	Pump 1000 gal flocck
		6¾	5				300	Pump 5 bbl KCL flush
			7					Plug RH 30 sks
	2220							mix cement 50/50 Poz @ 14.4 ppg 175 sks
	2245							Drop latch down plug
								Wash out Pump & line
	2240	6¾					300	Displace plug
		6¾	100				700	
	2300	6¾	110				1500	Land Plug - Release pressure to truck
								Dried up
	2310							Wash truck
								Rack up
	2345							job complete
								Thanks
								Blair Dave & Dodd

SWIFT Services, Inc.

CHARGE TO: LARSON ENGINEERING
ADDRESS
CITY, STATE, ZIP CODE

TICKET 20663

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. NESS CITY, KS	3-11	SPATZ	LANE	KS		4-8-11	SAME

TICKET TYPE	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.
☒ SERVICE ☐ SALES	WOOD WELL SERVICE		CT	LOCATION	

WELL TYPE	WELL CATEGORY	JOB PURPOSE	WELL PERMIT NO.	WELL LOCATION
OIL	DEVELOPMENT	CEMENT PORT COLLAR		SW/ DIGHTON, KS

REFERRAL LOCATION
INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE # 110	40	MI			5 00	200 00
576D		1			PUMP CHARGE	1	JOB			1100 00	1100 00
330		1			SWIFT MULTI-DENSITY STANDARD	190	SKS			15 00	2850 00
276		1			FLOCELE	50	LBS			1 50	75 00
290		1			D-AIR	2	GAL			35 00	70 00
581		1			SERVICE CHARGE CEMENT	225	SKS			1 50	337 50
583		1			DRAYAGE	22320	LBS	446.4	TM	1 00	446 40

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X T.C. Johnson

DATE SIGNED 4-8-11 | TIME SIGNED 1500 | ☐ A.M. ☒ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	5078 90
Lane TAX 6.3%	188 69
TOTAL	5267 59

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR WAYNE WATSON | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 4-8-11 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
LARSON ENGINEERING	3-11	SPATZ	CMNT PORT COLLAR	20663

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1500							ON LOCATION
								2 3/8 x 5 1/2
								PORT COLLAR @ 2113
	1455				✓		1000	PSI TEST CASING - HELD
	1500	3	2	✓		350		OPEN PORT COLLAR - EST RATE
	1505	4 1/2	105	✓		450		MIX CMNT 190 SKS SMD
	1530	4 1/2	7	✓		700		DISPLACE CMNT
	1540			✓		1000		CLOSE PORT COLLAR - PSI TEST - HELD
								CIRCULATED 20 SKS CMNT TO PIT
	1550	4	25		✓		450	RUN 5 JTS - CIRCULATE CLEAN
								WASH TRUCK
	1630							JOB COMPLETE
								THANK YOU
								WAYNE, JEFF, JOE

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042158 **DST#: 1**

Test Start: 2011.03.20 @ 18:30:15

GENERAL INFORMATION:

Formation: **H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended: 20:56:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4163.00 ft (KB) To 4185.00 ft (KB) (TVD)
Total Depth: 4185.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

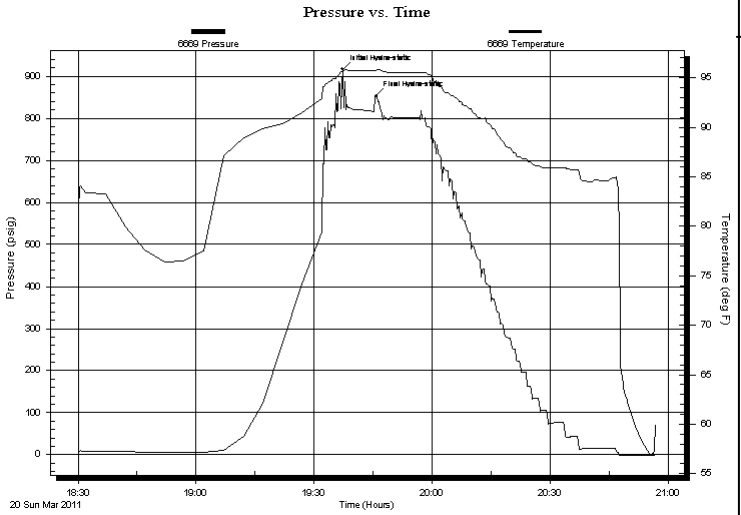
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: psig @ 4180.00 ft (KB)
Start Date: 2011.03.20 End Date: 2011.03.20
Start Time: 18:30:15 End Time: 20:56:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.20
Time On Btm: 2011.03.20 @ 19:37:15
Time Off Btm: 2011.03.20 @ 19:45:45

TEST COMMENT: IF:Hit bridge came out
IS:
FF:
FS:



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	916.17	95.68	Initial Hydro-static
9	852.92	95.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	m 100%m	0.02

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042158 **DST#: 1**

Test Start: 2011.03.20 @ 18:30:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

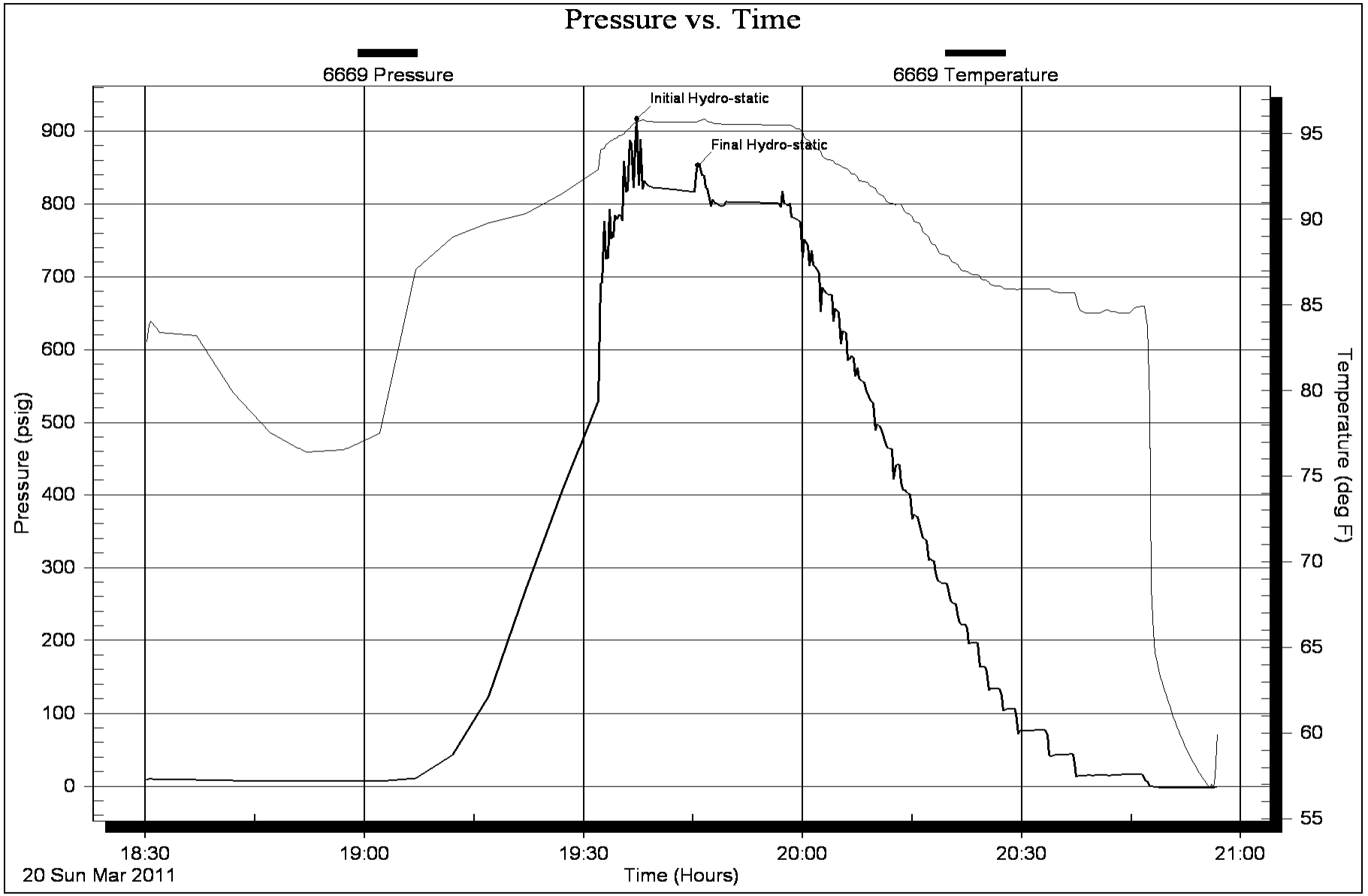
Length ft	Description	Volume bbl
5.00	m 100%m	0.025

Total Length: 5.00 ft Total Volume: bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
Pressure (psig)
Temperature (deg F)
900
800
700
600
500
400
300
200
100
0
95
90
85
80
75
70
65
60
55
18:30
19:00
19:30
20:00
20:30
21:00
20 Sun Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042159 **DST#: 2**

Test Start: 2011.03.21 @ 03:32:15

GENERAL INFORMATION:

Formation: **H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:44:45
Time Test Ended: 09:09:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4163.00 ft (KB) To 4185.00 ft (KB) (TVD)
Total Depth: 4185.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

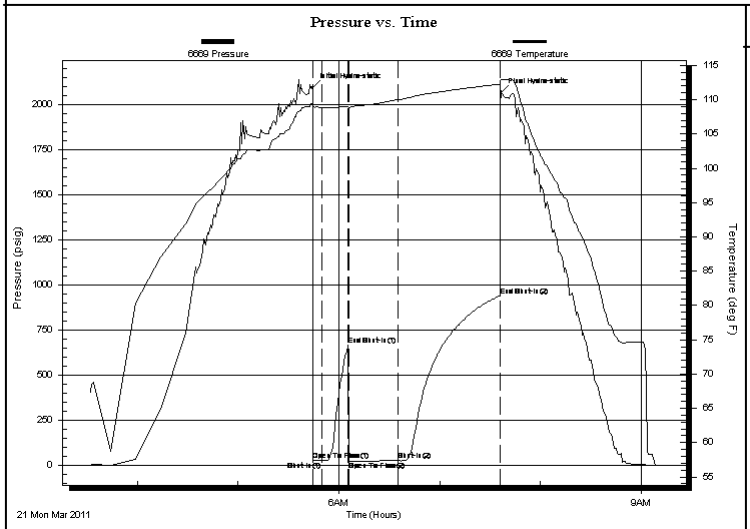
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 26.47 psig @ 4180.00 ft (KB)
Start Date: 2011.03.21 End Date: 2011.03.21
Start Time: 03:32:15 End Time: 09:09:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.21
Time On Btm: 2011.03.21 @ 05:44:15
Time Off Btm: 2011.03.21 @ 07:36:45

TEST COMMENT: IF:Builtg to w eak surface blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2092.26	109.46	Initial Hydro-static
1	28.29	109.04	Open To Flow (1)
6	25.98	108.85	Shut-In(1)
22	666.42	109.05	End Shut-In(1)
22	26.15	108.89	Open To Flow (2)
51	26.47	109.99	Shut-In(2)
112	940.67	112.26	End Shut-In(2)
113	2065.91	112.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mw ith oil spots	0.02

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042159 **DST#: 2**

Test Start: 2011.03.21 @ 03:32:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.35 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	1.00 inches				

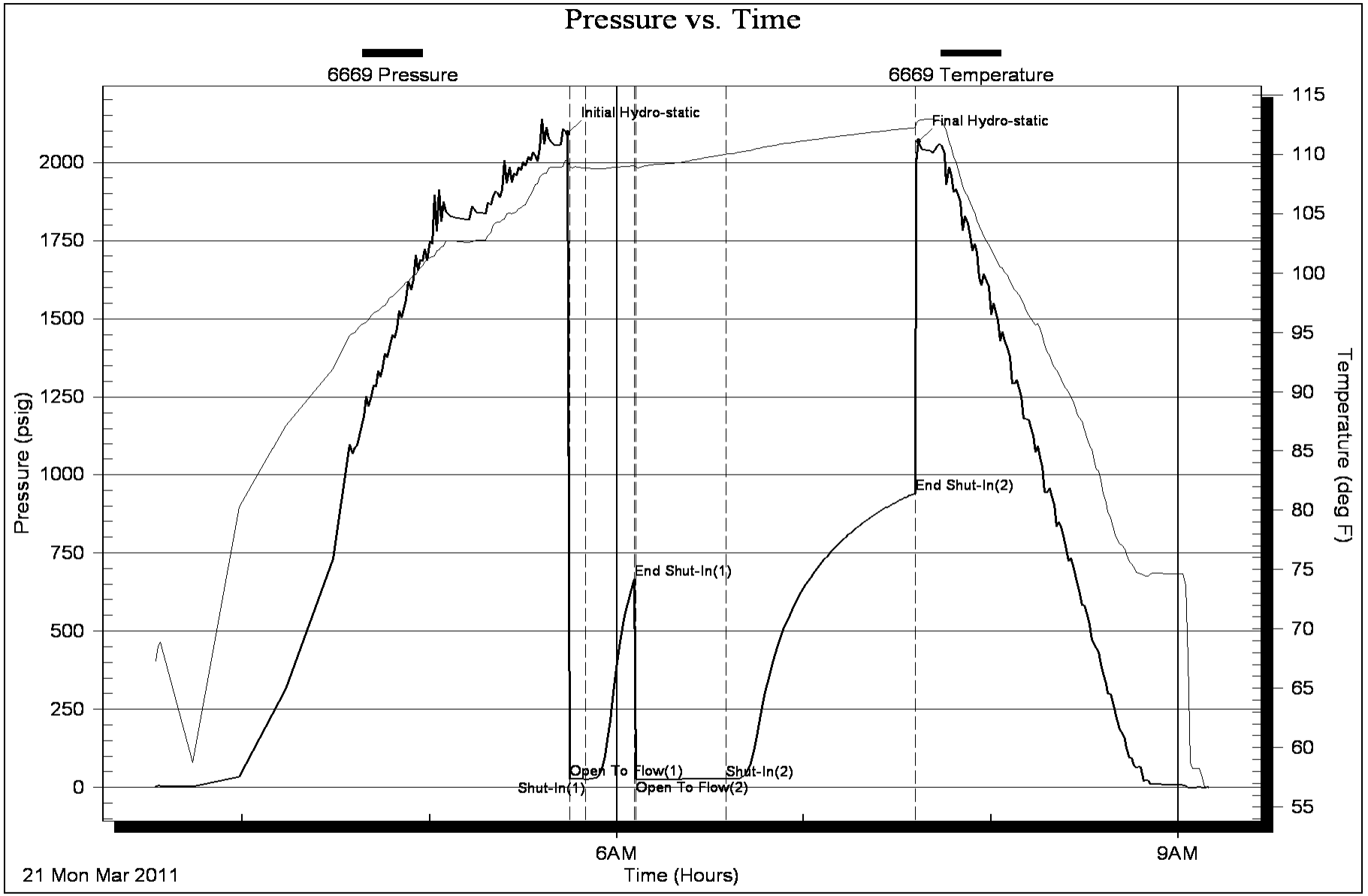
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mw ith oil spots	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Shut-In(2)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2000
1750
1500
1250
1000
750
500
250
0
115
110
105
100
95
90
85
80
75
70
65
60
55
6AM
9AM
21 Mon Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042160 **DST#: 3**

Test Start: 2011.03.21 @ 23:10:15

GENERAL INFORMATION:

Formation: **J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:16:15
Time Test Ended: 05:09:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4224.00 ft (KB) To 4248.00 ft (KB) (TVD)
Total Depth: 4248.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

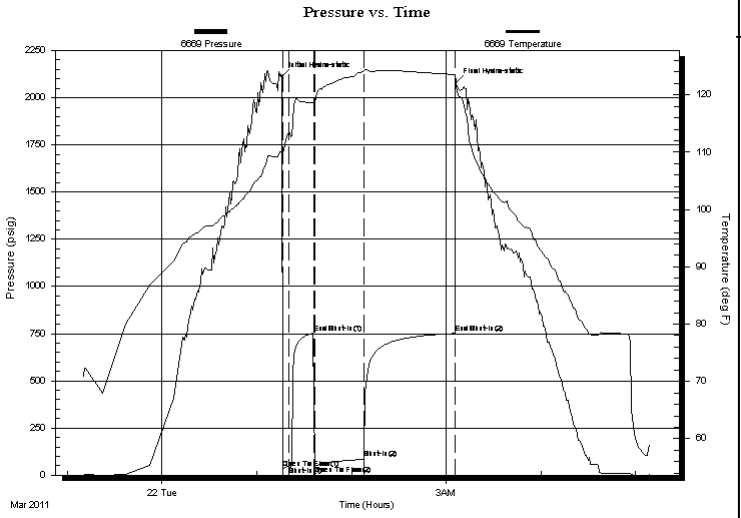
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 88.91 psig @ 4243.00 ft (KB)
Start Date: 2011.03.21 End Date: 2011.03.22
Start Time: 23:10:15 End Time: 05:09:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.22
Time On Btm: 2011.03.22 @ 01:15:45
Time Off Btm: 2011.03.22 @ 03:06:15

TEST COMMENT: IF:Built to 1" blow
IS:No return blow
FF:Built to 6" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.87	110.18	Initial Hydro-static
1	35.04	109.89	Open To Flow (1)
5	46.37	113.75	Shut-In(1)
21	753.15	118.58	End Shut-In(1)
21	51.61	118.30	Open To Flow (2)
53	88.91	124.21	Shut-In(2)
110	751.31	123.56	End Shut-In(2)
111	2081.66	122.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
118.00	ocm 10%o 90%m	0.58
25.00	w cmo 10%w 40%m 50%o	0.35
5.00	free oil	0.07

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042160 **DST#: 3**

Test Start: 2011.03.21 @ 23:10:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.57 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	1.00 inches				

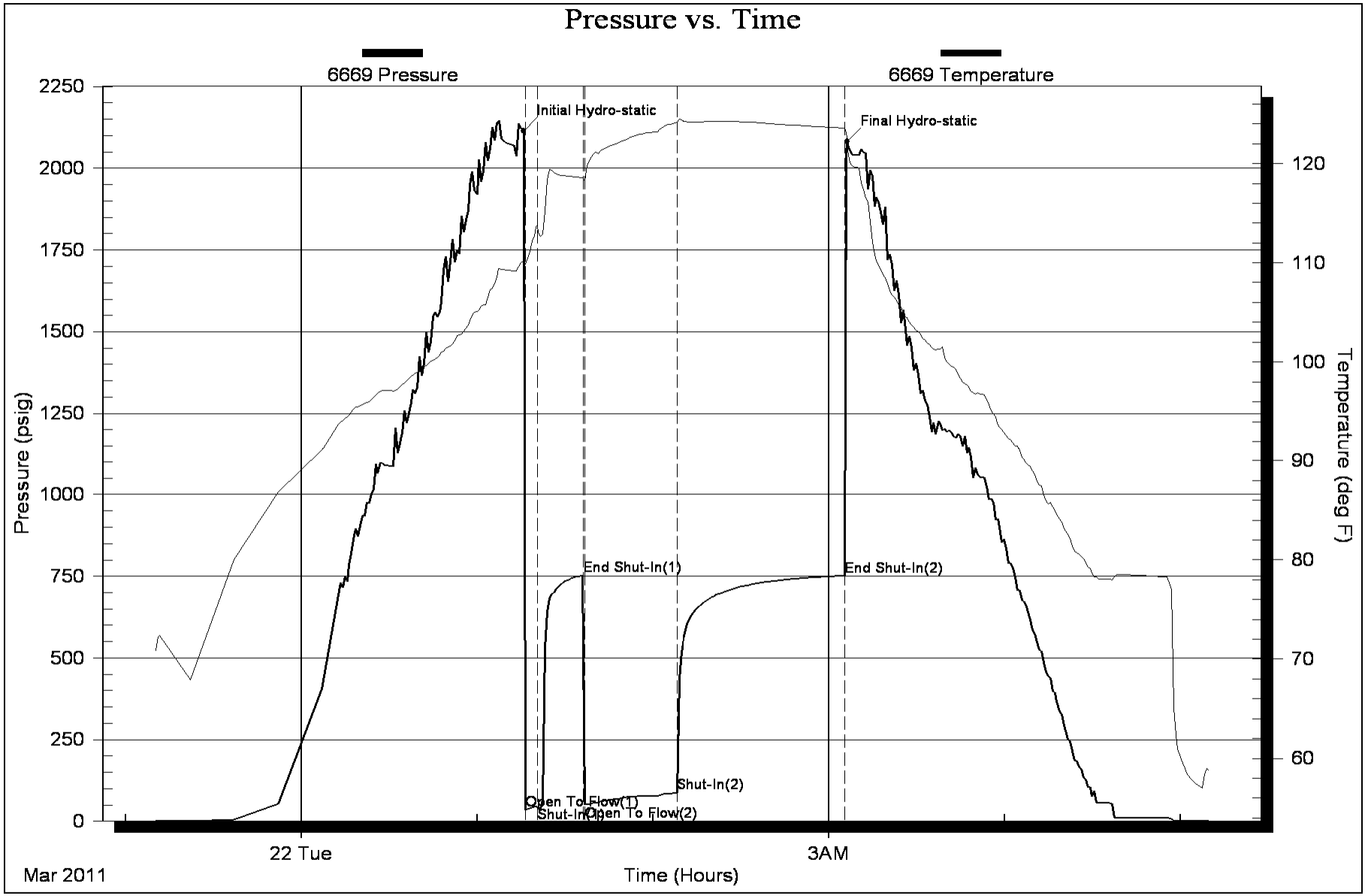
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
118.00	ocm 10%o 90%m	0.580
25.00	w cmo 10%w 40%m 50%o	0.351
5.00	free oil	0.070

Total Length: 148.00 ft Total Volume: 1.001 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
120
110
100
90
80
70
60
22 Tue
3AM
Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042161 **DST#: 4**

Test Start: 2011.03.22 @ 12:42:15

GENERAL INFORMATION:

Formation: **Lower J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:24:30
Time Test Ended: 18:25:00

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4254.00 ft (KB) To 4260.00 ft (KB) (TVD)
Total Depth: 4260.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

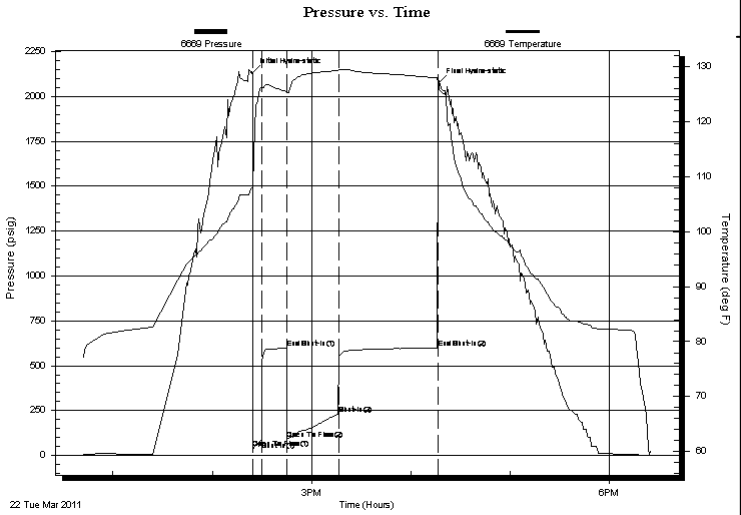
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Inside**

Press@RunDepth: 231.76 psig @ 4255.00 ft (KB)
Start Date: 2011.03.22 End Date: 2011.03.22
Start Time: 12:42:15 End Time: 18:25:00

Capacity: 8000.00 psig
Last Calib.: 2011.03.22
Time On Btm: 2011.03.22 @ 14:24:15
Time Off Btm: 2011.03.22 @ 16:17:15

TEST COMMENT: IF:Built to 5 1/2" blow
IS:No return blow
FF:BOB in 11 min
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.61	107.97	Initial Hydro-static
1	37.08	107.62	Open To Flow (1)
6	79.35	125.95	Shut-In(1)
21	596.63	125.50	End Shut-In(1)
21	91.71	125.25	Open To Flow (2)
52	231.76	129.27	Shut-In(2)
112	597.66	128.01	End Shut-In(2)
113	2078.62	125.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
490.00	sw 100%	5.80

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042161 **DST#: 4**

Test Start: 2011.03.22 @ 12:42:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	21000 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.57 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

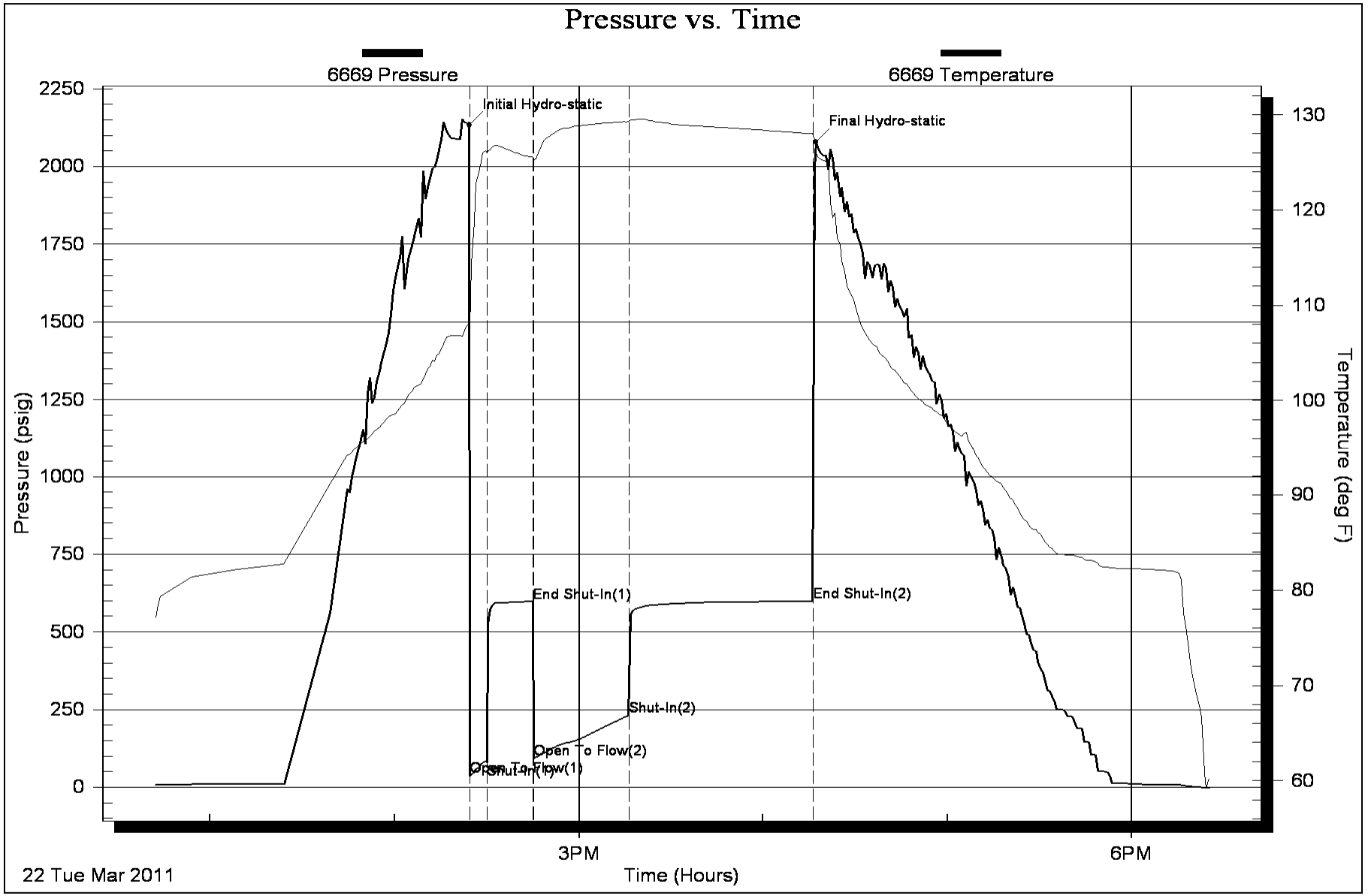
Length ft	Description	Volume bbl
490.00	sw 100%	5.798

Total Length: 490.00 ft Total Volume: 5.798 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW=.345@70.5*=21,000 ppm


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(2)
Shut-In(1)
Open To Flow(1)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
3PM
6PM
22 Tue Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042162 **DST#: 5**

Test Start: 2011.03.23 @ 02:48:15

GENERAL INFORMATION:

Formation: **K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:26:15
Time Test Ended: 07:27:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4265.00 ft (KB) To 4278.00 ft (KB) (TVD)
Total Depth: 4278.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

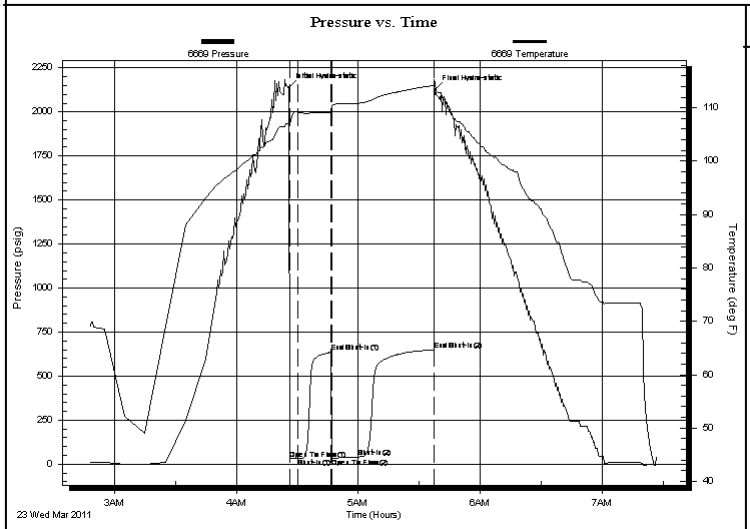
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 41.16 psig @ 4273.00 ft (KB)
Start Date: 2011.03.23 End Date: 2011.03.23
Start Time: 02:48:15 End Time: 07:27:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.23
Time On Btm: 2011.03.23 @ 04:26:00
Time Off Btm: 2011.03.23 @ 05:37:45

TEST COMMENT: IF:Built to w eak surface blow
IS:No return blow
FF: Weak surface blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2138.02	107.06	Initial Hydro-static
1	29.29	106.86	Open To Flow (1)
4	30.63	109.20	Shut-In(1)
21	635.45	109.09	End Shut-In(1)
21	34.62	110.42	Open To Flow (2)
34	41.16	110.85	Shut-In(2)
71	647.90	114.20	End Shut-In(2)
72	2126.17	114.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	free oil	0.02
55.00	ocm 50%o 50%m	0.27

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042162 **DST#: 5**

Test Start: 2011.03.23 @ 02:48:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	62.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	2.00 inches				

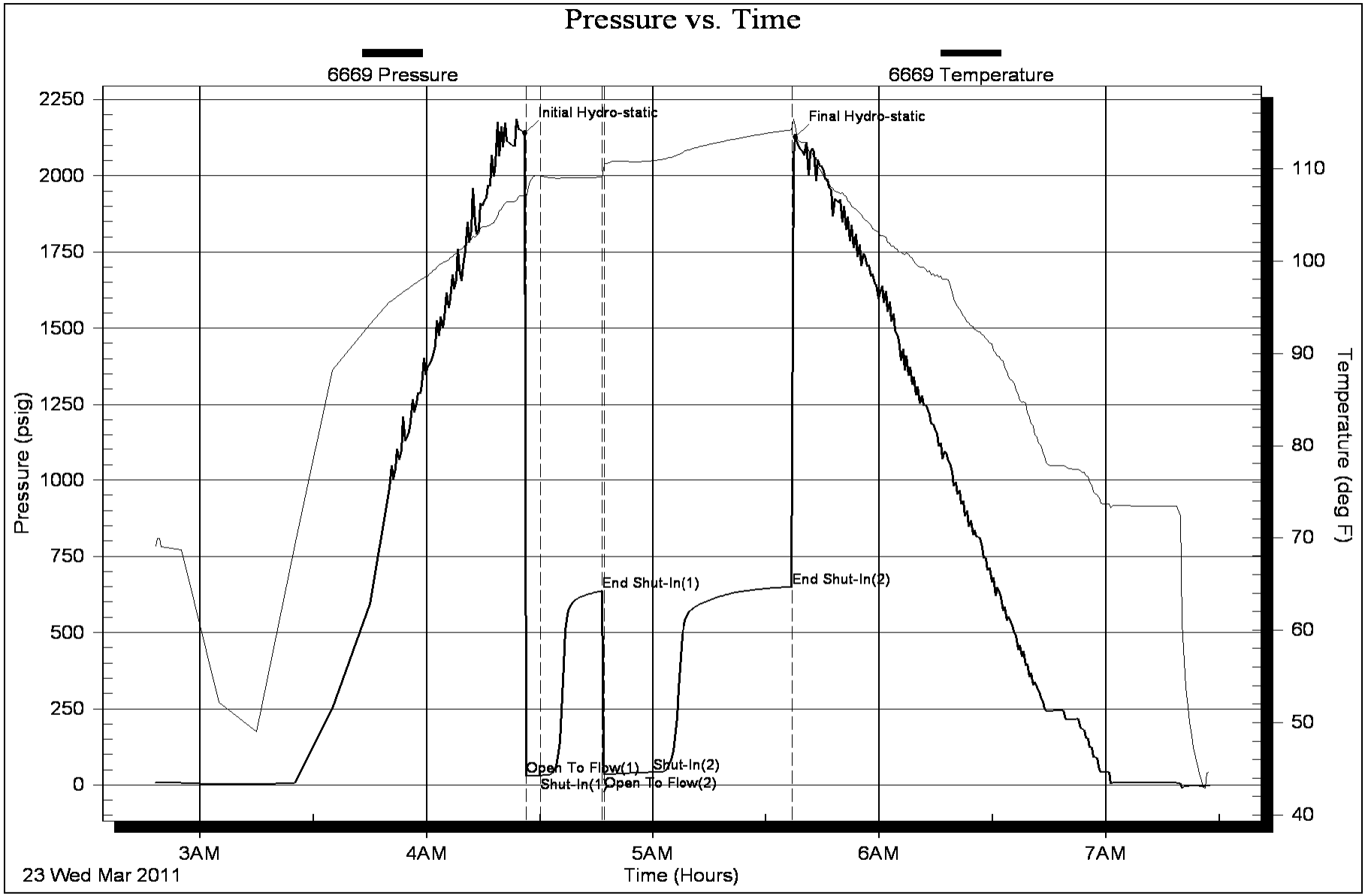
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	free oil	0.025
55.00	ocm 50%o 50%m	0.270

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:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Shut-In(2)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
3AM
4AM
5AM
6AM
7AM
23 Wed Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042163 **DST#: 6**

Test Start: 2011.03.23 @ 14:35:15

GENERAL INFORMATION:

Formation: **k**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:46:45
Time Test Ended: 20:51:15

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4273.00 ft (KB) To 4286.00 ft (KB) (TVD)
Total Depth: 4286.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

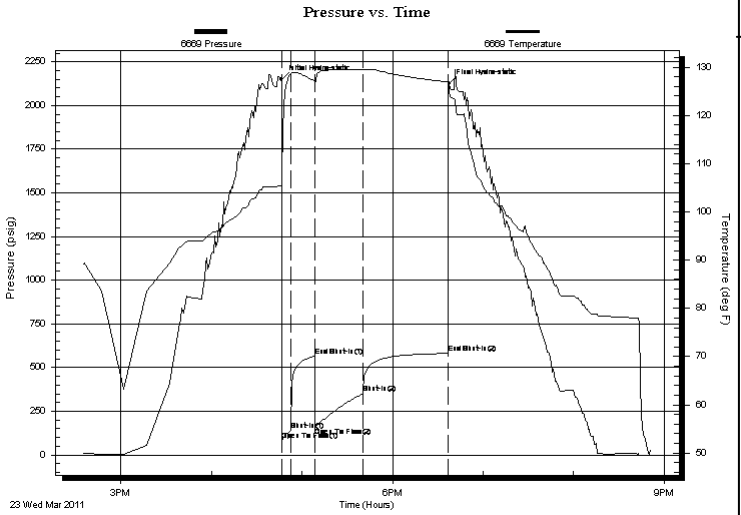
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 351.60 psig @ 4281.00 ft (KB)
Start Date: 2011.03.23 End Date: 2011.03.23
Start Time: 14:35:15 End Time: 20:51:15

Capacity: 8000.00 psig
Last Calib.: 2011.03.23
Time On Btm: 2011.03.23 @ 16:46:15
Time Off Btm: 2011.03.23 @ 18:37:30

TEST COMMENT: IF:BOB in 3 min.
IS:No return blow
FF:BOB in 5 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2148.35	105.41	Initial Hydro-static
1	81.71	108.08	Open To Flow (1)
7	143.50	128.74	Shut-In(1)
22	564.08	127.21	End Shut-In(1)
23	156.77	126.58	Open To Flow (2)
55	351.60	129.44	Shut-In(2)
111	580.83	126.94	End Shut-In(2)
112	2125.73	124.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	ocw m 20%o 30%m 50%w	0.30
864.00	sw 100%	11.59

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042163 **DST#: 6**

Test Start: 2011.03.23 @ 14:35:15

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:	16000 ppm
Viscosity:	62.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2300.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

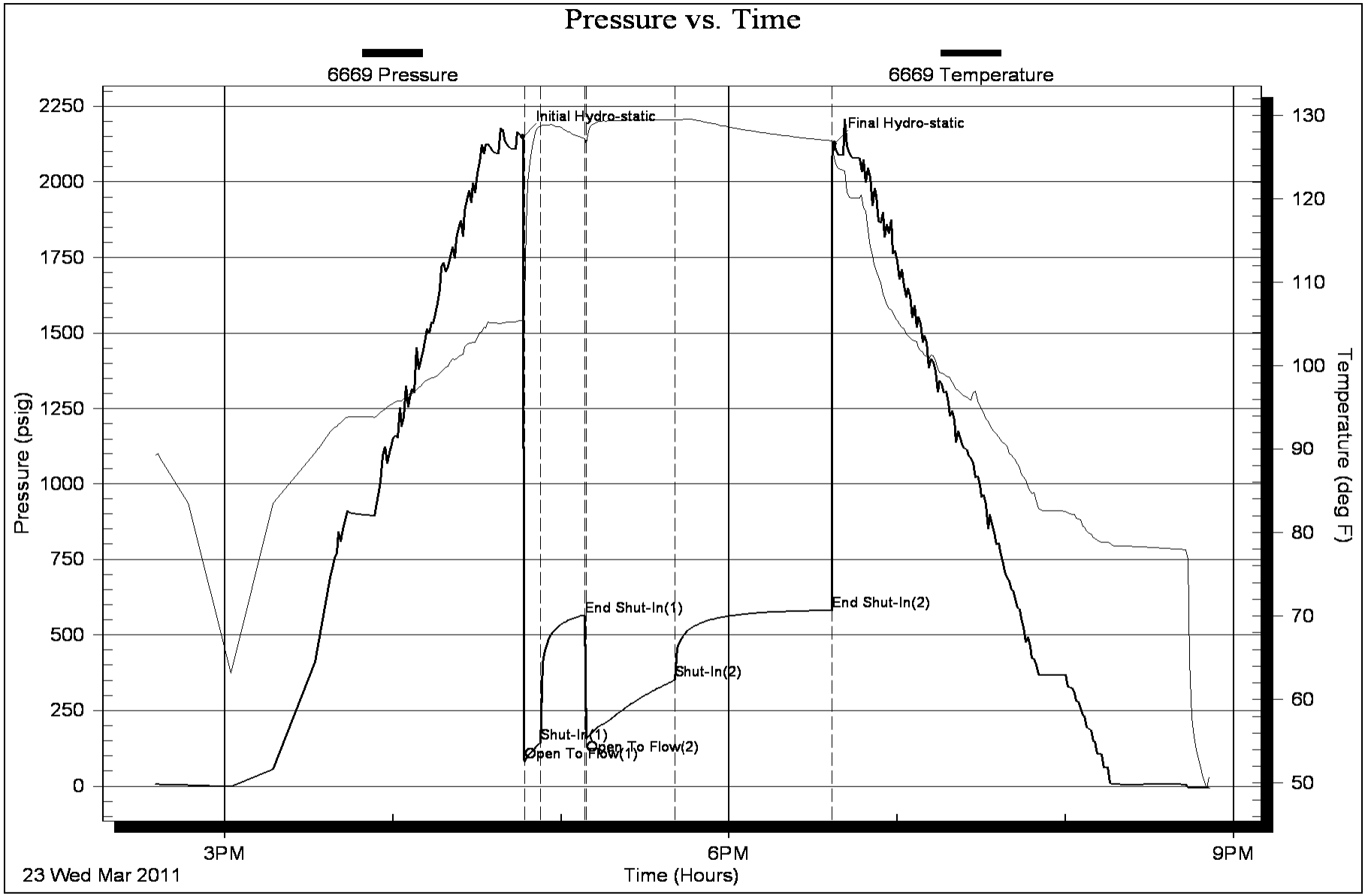
Length ft	Description	Volume bbl
60.00	ocw m 20%o 30%m 50%w	0.295
864.00	sw 100%	11.591

Total Length: 924.00 ft Total Volume: 11.886 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .553@58.4*=16,000 ppm


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
3PM
6PM
9PM
23 Wed Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042164 **DST#: 7**

Test Start: 2011.03.24 @ 07:55:15

GENERAL INFORMATION:

Formation: **Mid Creek**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:47:00
Time Test Ended: 15:08:30

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4310.00 ft (KB) To 4321.00 ft (KB) (TVD)
Total Depth: 4321.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

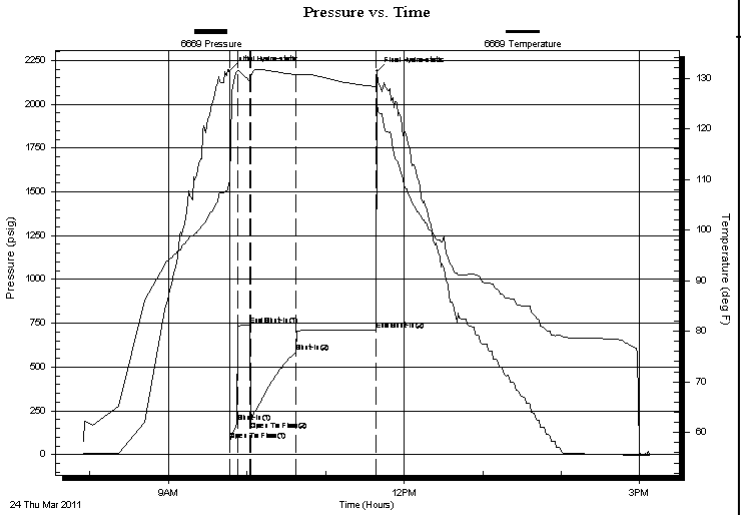
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 584.01 psig @ 4316.00 ft (KB)
Start Date: 2011.03.24 End Date: 2011.03.24
Start Time: 07:55:15 End Time: 15:08:30

Capacity: 8000.00 psig
Last Calib.: 2011.03.24
Time On Btm: 2011.03.24 @ 09:46:45
Time Off Btm: 2011.03.24 @ 11:39:30

TEST COMMENT: IF:BOB in 2 min.
IS:Return blow built to 1 1/2"
FF:BOB in 3 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.02	109.39	Initial Hydro-static
1	81.71	110.49	Open To Flow (1)
6	182.18	131.26	Shut-In(1)
16	737.68	129.31	End Shut-In(1)
16	187.93	128.84	Open To Flow (2)
51	584.01	130.68	Shut-In(2)
112	710.80	128.29	End Shut-In(2)
113	2188.06	125.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
118.00	gco 5%g 95%o	0.58
124.00	gco 10%g 90%o	1.74
1302.00	gco 30%g 70%o	18.26

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042164 **DST#: 7**

Test Start: 2011.03.24 @ 07:55:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	34 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3100.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

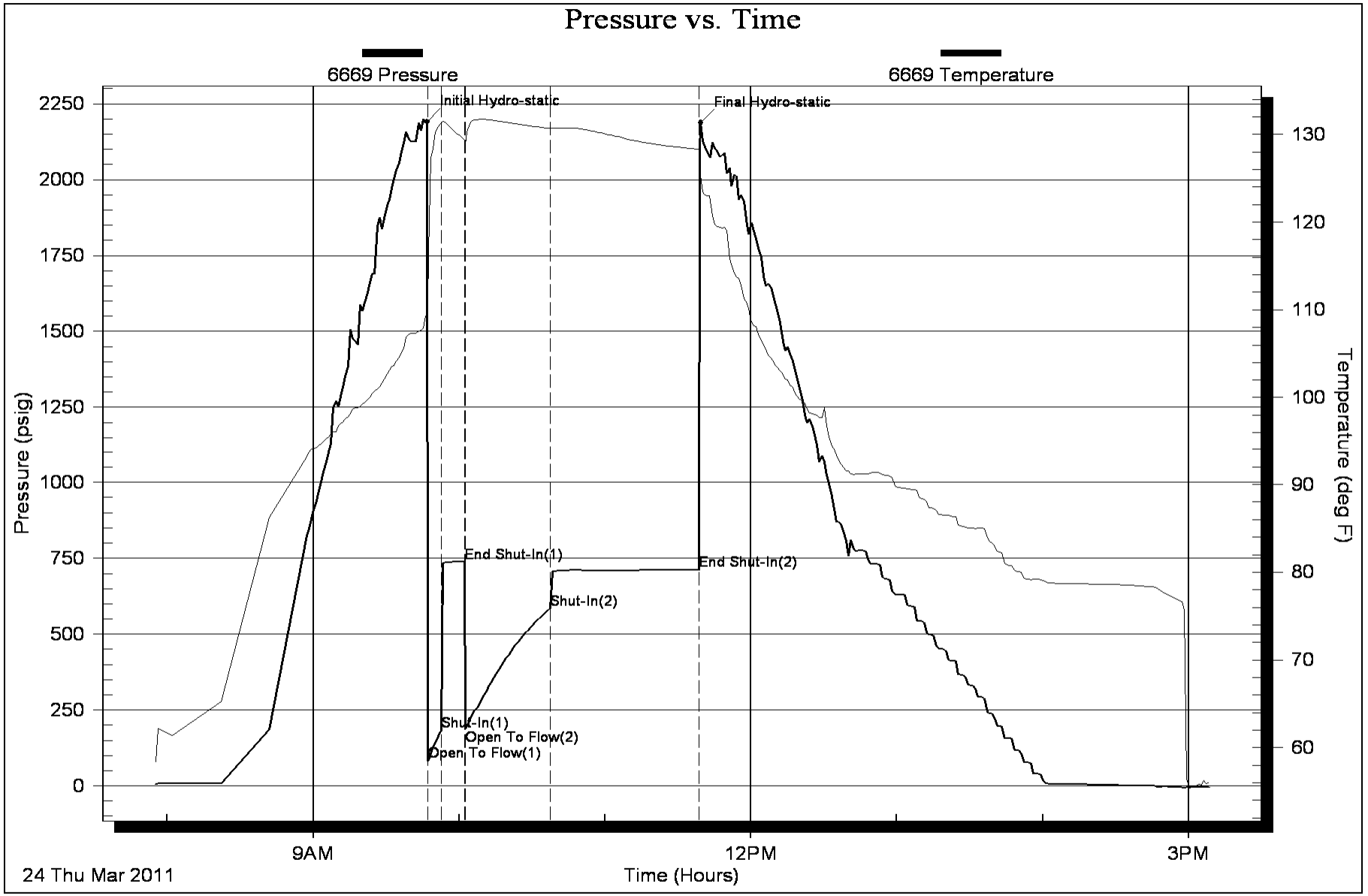
Length ft	Description	Volume bbl
118.00	gco 5%g 95%o	0.580
124.00	gco 10%g 90%o	1.739
1302.00	gco 30%g 70%o	18.264

Total Length: 1544.00 ft Total Volume: 20.583 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Shut-In(1)
Open To Flow(2)
Open To Flow(1)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
9AM
12PM
3PM
24 Thu Mar 2011
Time (Hours)

DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042165 **DST#: 8**

Test Start: 2011.03.25 @ 23:18:15

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:35:15
Time Test Ended: 05:04:45

Test Type: Conventional Bottom Hole
Tester: Mike Roberts
Unit No: 48

Interval: 4443.00 ft (KB) To 4522.00 ft (KB) (TVD)
Total Depth: 4522.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

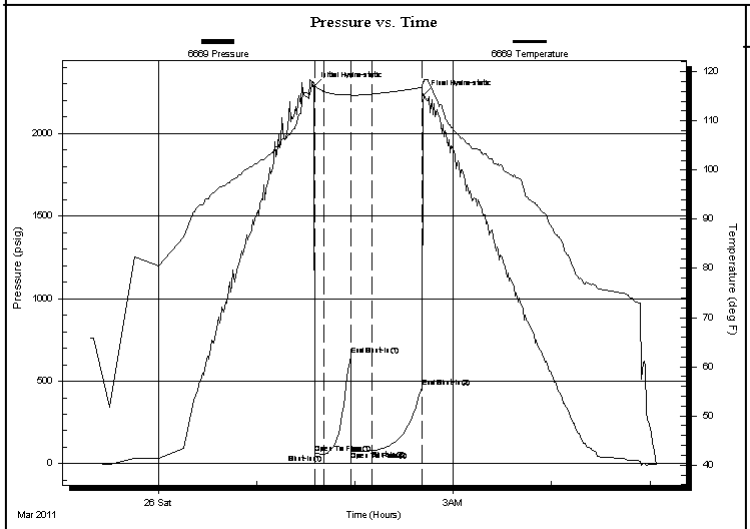
Reference Elevations: 2816.00 ft (KB)
2811.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6669 **Outside**

Press@RunDepth: 79.26 psig @ 4517.00 ft (KB)
Start Date: 2011.03.25 End Date: 2011.03.26
Start Time: 23:18:15 End Time: 05:04:45

Capacity: 8000.00 psig
Last Calib.: 2011.03.26
Time On Btm: 2011.03.26 @ 01:34:45
Time Off Btm: 2011.03.26 @ 02:41:45

TEST COMMENT: IF:Built to 1/2" blow
IS:No return blow
FF:Built to 1/2" blow in 5 min then stayed no increase
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2282.07	117.90	Initial Hydro-static
1	64.49	117.36	Open To Flow (1)
6	56.22	116.05	Shut-In(1)
23	657.32	115.43	End Shut-In(1)
23	74.46	115.22	Open To Flow (2)
36	79.26	115.45	Shut-In(2)
66	466.60	116.81	End Shut-In(2)
67	2233.07	118.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	m w ith oil spots	0.05

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

562 West St. Rd 4
Olmitz Ks. 67564

ATTN: Vern Schrag

Spatz 3-11

11/19s/29w.LaneKS

Job Ticket: 042165 **DST#: 8**

Test Start: 2011.03.25 @ 23:18:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.37 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	1.00 inches				

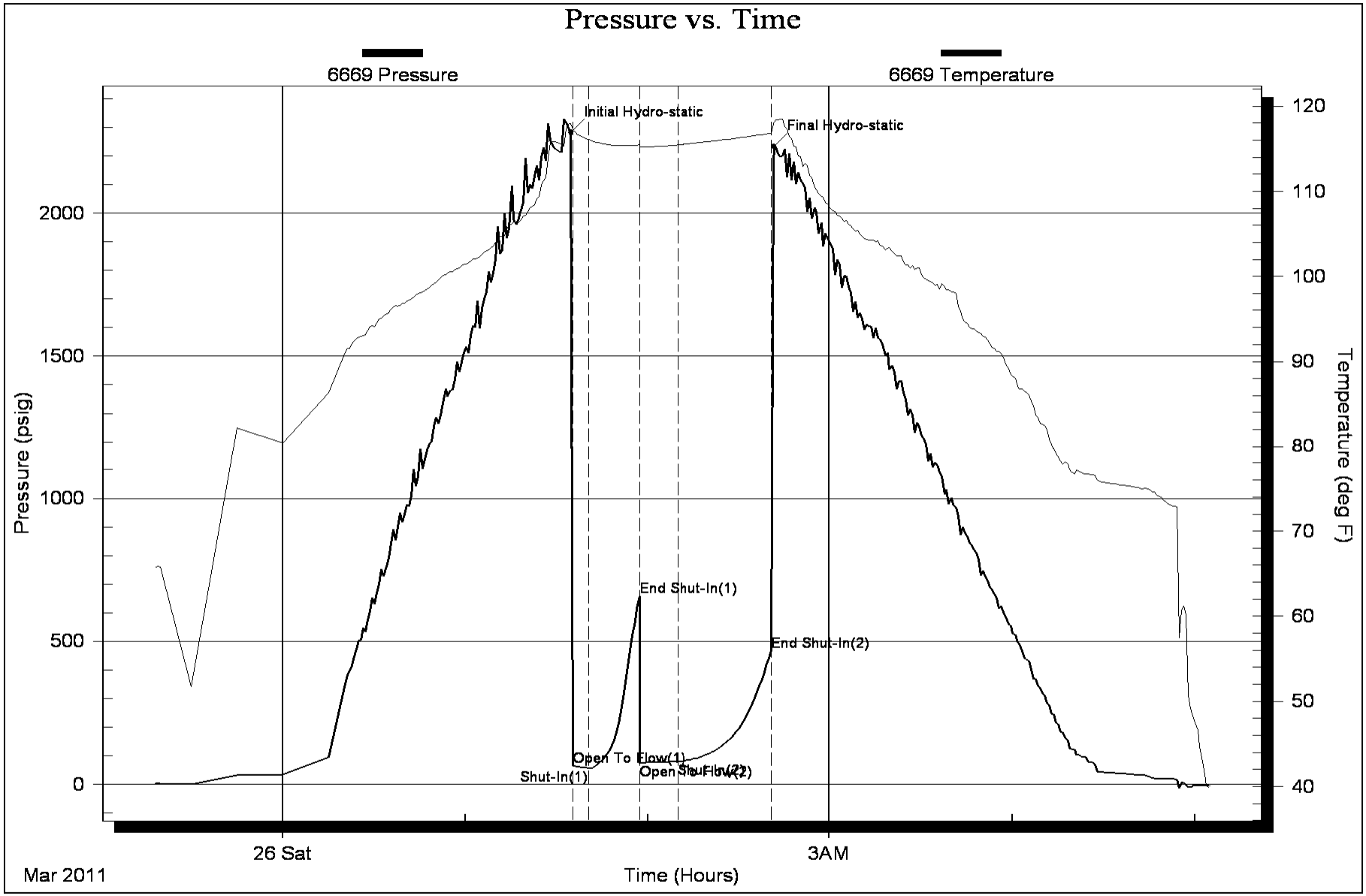
Recovery Information

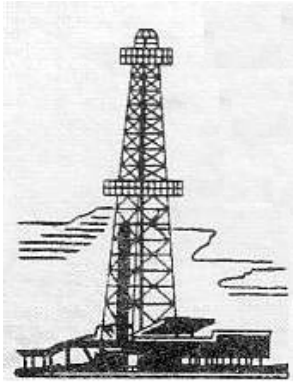
Recovery Table

Length ft	Description	Volume bbl
10.00	m w ith oil spots	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:


Pressure vs. Time
6669 Pressure
6669 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
2000
1500
1000
500
0
120
110
100
90
80
70
60
50
40
26 Sat
3AM
Mar 2011
Time (Hours)



WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST

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

Well Name:	**SPATZ #3-11**		
Location:	**N2 SW NW NW Sec. 11-19s-29w**		
Licence Number:	**API: 15-101-22283**	**Region:**	**Lane Co., KS**
Spud Date:	**Mar. 15, 2011**	**Drilling Completed:**	**Mar. 27, 2011**
Surface Coordinates:	**977' FNL & 330' FWL**		
Bottom Hole Coordinates:	**Vertical Hole**		
Ground Elevation (ft):	**2809'**	**K.B. Elevation (ft):**	**2816'**
Logged Interval (ft):	**3800' To: RTD**	**Total Depth (ft):**	**4655'**
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 #3

DP 4.5" XH (16.6#); DC 6.0" (ave) x 2-3/8" (ave) x 621,49', Kelly + Bit 41.30', Tool Joint 5.5" ; Bit: QX20, 7-7/8", jets 14-14-14; rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

SURFACE CASING:

Set 8-5/8" casing at 256' (20#)

CIRCULATION SYSTEM:

Pump: Gardner-Denver FXQ-172, duplex, 6 x 16, 2" rod, 54 spm, 340 gpm (85%). SPP: 750-900 psi; Chemical, premix, displaced at 3250'; Morgan Mud, Inc., McCook, Neb., David Lines, Cade Lines.

GAS DETECTION SYSTEM:

None.

OPEN HOLE LOGS:

DN (PE), DI (SP), ML: 5" detail RTD-3600; 2" DI to suface casing; No Sonic Log; LogTech-Pioneer Wireline, Hays, KS, Kenyon Bange, Log total depth (4657') was 2' long to rotary total depth (4655').

COMPLETION:

Oil Well.

DRILL STEM TEST #1:

Zone: Kans. City "H": Test Interval: 4163-4185' (22' anchor); Missrun; Hit bridge, 32 stands DP out, 25 stands DP in + 118' DC, 50' Tool, about 1718' (upper Cedar Hills Sand), HP: 916-852, dual packers, jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #2:

Zone: Kans. City "H": Test Interval: 4163-4185' (22' anchor); Blow: weak at surface IFP; no blow back; no blow FFP; Time Periods: 5-15-30-60; Recovery: no GIP, 5' mud with oil spots (100% mud); Pressures: HP: 2092-2065; SIP: 666-940, FP: 28-25, 26-26; BHT: 112 deg F; dual packers, jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #3:

Zone: Kans. City "I": Test Interval: 4224-4248' (24' anchor); Blow: weak incr to 1" IFP, no BB; weak incr to 6" FFP, no BB; Time Periods: 5-15-30-60; Recovery: no GIP, 150' total fluid; Grindout: 5' oil (100% oil), 25' water & mud cut oil (10% water, 40% mud, 50% oil), 125' oil cut mud (10% oil, 90% mud); Pressures: HP: 2113-2081; SIP: 753-751, FP: 35-46, 51-88; BHT: 123 deg F; dual packers (w/shale packer), jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #4:

Zone: Kans. City "J"; Test Interval: 4254-4260 (6' anchor); Blow: incr to 5" IFP, no BB; incr to 11" FFP, no BB; Time Periods: 5-15-30-60; Recovery: 490' salt water (Rw 0.345 at 70 deg F, chlorides 21k/2.3k); Pressures: HP: 2133-2098, SIP: 596-597; FP: 37-79, 91-231; BHT: 128 deg F;
dual packers, jars, joints, 118' collars, 5' perf; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #5:

Zone: Kans. City "Lower J": Test Interval: 4265-4278 (13' anchor); Blow: weak surf blow both FP, no BB; Time Periods: 5-15-15-30; Recovery: no GIP, 60' total fluid: Grindout: 5' oil (100% oil), 55' oil cut mud (50% oil, 50% mud); Pressures: HP: 2138-2126; SIP: 635-647; FP: 29-30, 34-41; BHT: 114 deg F; dual packers, jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #6:

Zone: Kans. City "K": Test Interval: 4273-4286 (13' anchor); Blow: BOB/3 min IFP, no BB; BOB/5 min FFP, no BB; Time Periods: 5-15-30-60; Recover 924' total fluid: Grindout: 60' oil & mud cut water (20% oil, 30% mud, 50% water), 864' salt water (100% water, Rw 0.553 at 58 F, Chlorides 16k/2300); Pressures: HP: 2148-2125; SIP: 564-580; FP: 81-143, 156-351; BHT: 126 F; dual packers, jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #7:

Zone: Middle Creek; Test Interval: 4310-4321 (11' anchor); Blow: BOB in 2 min IFP, 1-1/2" BB; BOB in 3 min FFP, no BB; Time Periods: 5-15-30-60; 62' GIP, 1554' GCO; Grindout: 1302' (30% gas, 70% oil, API grav 34, 7.85 ppg), 124' (10% gas, 90% oil), 118' (5% gas, 95% oil); Pressures: HP: 2191-2188; SIP: 737-710; FP: 81-182, 187-584; BHT: 128 F; dual packers, jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

DRILL STEM TEST #8:

Zone: Marmaton-Myrick Station: Test Interval: 4443-4522 (79' anchor); Blow: weak 1/2" both FP, no BB; Time Periods: 5-15-15-30; Recovery: 10' mud with oil spots; Pressures: HP: 2282-2233; SIP: 657-466; FP: 64-56, 74-79; BHT: 116 F; dual packers (w/shale packer), jars, joints, 118' collars; Trilobite Testing, Inc., Mike Roberts.

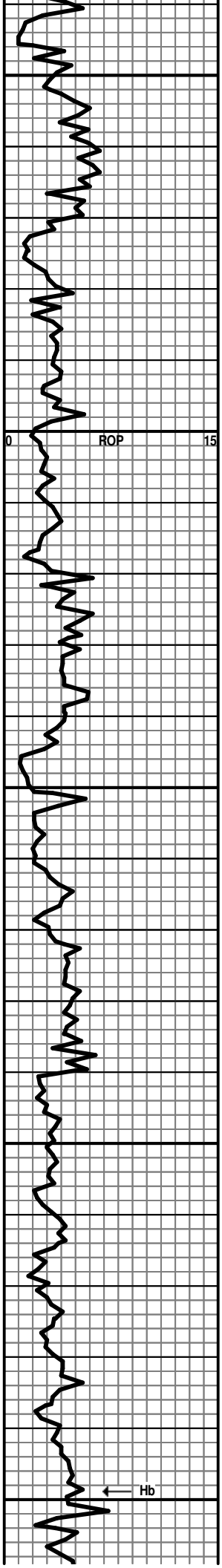
7AM DAILY ACTIVITY:

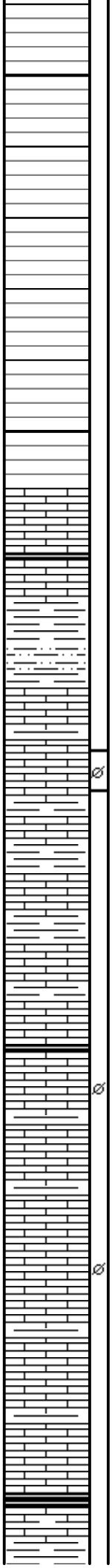
03/14:	MIRT, SPUD
03/15:	Drilling 270'
03/16:	Drilling 2175'
03/17:	Drilling 2925'
03/18:	Lost Circ. 3426'
03/19:	Drilling 3842'
03/20:	Drilling 4141'
03/21:	DST #2 4185
03/22:	DST #3 4248
03/23:	DST #5 4278
03/24:	DST #7 4321
03/25:	DRILLING 4412
03/26:	DST #8 4522
03/26:	RTD 4655 11:56 pm
03/27:	Released 8:59 am

WELLSITE GEOLOGIST:

Vern Schrag

ROP ROP (min/ft)	DST	Lithology	Porosity and Show	Depth	Geological Descriptions	TG, C1-C4 / REMARKS
0 ROP 15				3700		BIT TRIP @ 2151 LOST CIRC AT 3426, DOWN 1-1/2 HRS. MORGAN MUD CHECK: 3516: 03/18-12pm WHILE DRILLING: VIS 49, WT 8.7, WL 7.2, CHL 900, LCM 1.5# GEO WAS ON LOC 03/18/2011-6pm, ABOUT 3660.





START 10 FOOT SAMPLES 3800-3810.

SH: GREEN, GRAY; SILTY IN PART;

LS: GRAYISH BRN; VF-XTAL; CHALKY, CRUMBLY; OOL IN PART; POOR INTER OOL POROSITY; NO SHOWS;

LS: GRAYISH BRN; VF-F XTAL; TIGHT INT XTAL POR AND SCAT MED VUG POROSITY, TRC OOM; NO SHOWS. 3860.

LS: GRAYISN BRN; MIC-VF XTAL; CHALKY, ARGILL; NO APPARENT POROSITY; NO SHOWS.

LS: AS ABOVE;

LT-BRN, LT GRAYISH BRN; VF-XTAL; CHALKY; NO APPARENT POROSITY; NO SHOWS.

LS: GRAYISH BRN, SPECKLED; VF-XTAL; FINE OOM POROSITY IN PART; NO SHOWS.

LS: LT-BRN; VF-XTAL; NO APPARENT POROSITY; NO SHOWS.

LS: GRAYISH BRN; VF-XTAL; CHALKY IN PART; FEW PIECES FAIR VUG POROSITY; NO SHOWS.

LS: BRN, GRAYISH BRN; VF-XTAL; FINELY GRANULAR; NO APPARENT POROSITY; NO SHOWS.

SHALE: GRAY, GREEN

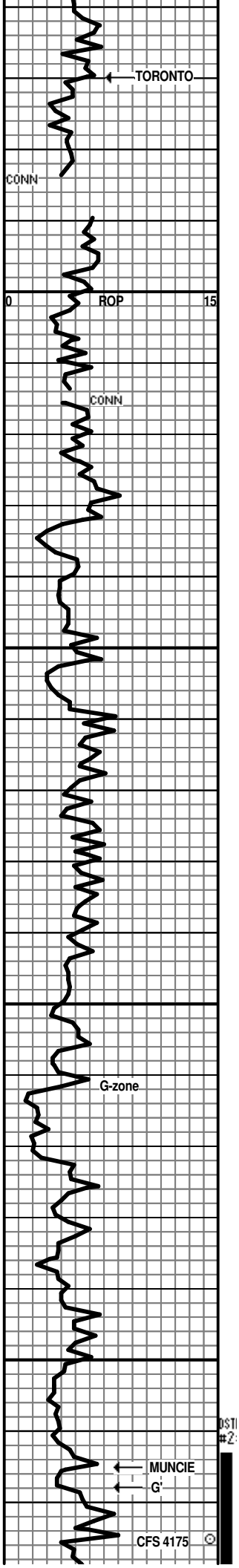
LS: GRAYISH-BRN; SPECKLED; SHALEY; NO SHOWS.

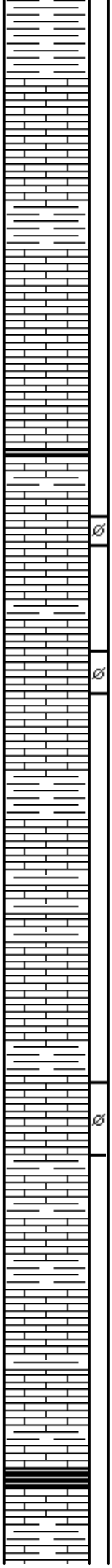
HEEBNER SH 3949 (-1133)

SH: BLACK; CARBON; <5% 3960, SLI INCR 3970.

MORGAN MUD CHECK: 03/19-3pm WHILE DRILLING: VIS 57, WT 8.9, WL 8.4, CHL 2300, LCM 1#.

SH: GREEN, GRAY; SILTY IN PART; PYRITIC;





TORONTO 3970 (-1154)

LS: LT GRAYISH BRN, OFF WHITE; VF-XTAL; CHALKY; POOR APPARENT POROSITY; NO SHOWS;

GEOLOGRAPH CABLE HUNG UP DUE TO TURBULENT WIND AFTER CONN AT 3984.

SHALE: GRAY;

LANSING 3994 (-1178)

LS: WHITE, LT BRN; MIC-VF XTAL; MOSTLY DENSE; CHALKY IN PART; EVEN TEXTURED; SLI CHERT; POOR APPARENT POROSITY; NO SHOWS. GOOD VOL 4000.

LS: WHITE, LT BRN; VF-XTAL; DENSE; MINOR CHERT; NO APPARENT POROSITY; NO SHOWS.

KELLY DOWN 4' SHORT AT CONN 4015 AS GEOLOGRAPH CABLE HUNG UP AT 3984.

LS: WHITE, LT BRN; VF-XTAL; CHALKY IN PART; TRC SHELLS; NO APPARENT POROSITY; NO SHOWS.

SH: DK GRAY, GREEN;

LS: WHITE, LT BRN; VF-XTAL; SOME SOFT CHALK; SCAT VUG POROSITY; DULL FLUOR; NO SHOWS.

LS: WHITE, LT BRN; VF XTAL; CHALKY; NO APPARENT POROSITY; NO SHOW.

CONN 4045, THEN STOP AT 4046 TO WORK ON PUMP, DOWN 25 MIN.

LS: WHITE, MICRO-XTAL; SOFT CHALK; NO APPARENT POROSITY; DULL FLUOR; NO SHOWS, 4070.

LS: WHITE, LT BRN; VF-XTAL; DENSE; NO APPARENT POROSIITY; NO SHOWS.

SH: GRAY;

LS: LTBRN, LT GRAY; VF XTAL; DENSE; NO APPARENT POROSITY; NO SHOWS.

LS: LT BRN, LT GRAY; VF-XTAL; DENSE; NO APPARENT POROSITY; NO SHOWS.

SH: GRAYS;

LS: MED-DK BRN; VF-F XTAL; FINELY OOMOLDIC & OOLITIC; SUB-VITREOUS; FAIR OOM POROSITY; DULL FLUOR; NO SHOWS; STARTS 4130.

LS: WHITE, LT BRN; VF-XTAL; CHALKY IN PART; MOSTLY DENSE; NO APPARENT POROSITY; NO SHOWS;

SH: GRAY, DK GRAY

MORGAN MUD CHECK: 4183: 03/20-2pm WHILE DRILLING: VIS 57, WT 9.2, WL 8.4, CHL 2300, LCM 1#.

LS: WHITE, MOSTLY LT BRN; VF-XTAL; CHALKY IN PART; NO APPARENT POROISTY; NO SHOWS.

STRAP PIPE ON DST #1: BOARD 4198.62, STRAP 4198.61, STRAP IS SHORT 0.01'.

LS: LT -MED GRAY; VF-XTAL; DENSE; PLATEY; NO APPARENT PORISITY; NO SHOWS;

SHORT TRIP 22 STANDS 4175, CIRC 60 MIN BEFORE DRILL AHEAD.

MUNCIE CREEK 4165 (-1349)

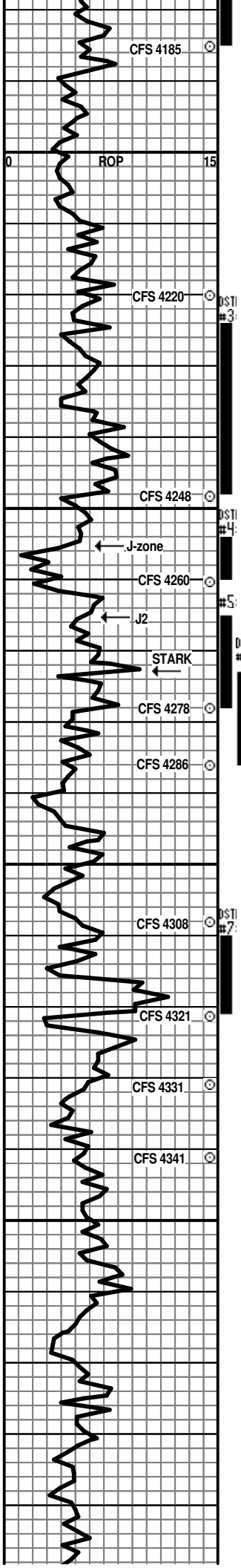
SH: BLACK; CARBON; TRC 4175, INCR 30 MIN;

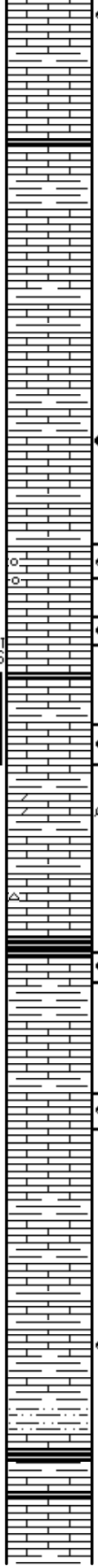
CIRC 90 MIN BEFORE TOH,

LS: GRAY, BRN, MOTTLED; VF-F XTAL; MED-CRS GRANULAR; DENSE, HARD; SLI FOS; SLI SHALEY; TIGHT INT GRAN POROSITY; NO SHOWS; 30 MIN.

DST #1: 4163-4185: MISSRUN: HIT BRIDGE 32 STANDS OUT, TOH.

LS: MED-DK BRN; VF-F XTAL; SLI FOS; COARSE GRAN IN PART;





4200

4250

4300

4350

MOSTLY DENSE, HARD; MINOR CHALK; 5% SPTD YEL FLUOR MOSTLY IN CHALK PART; TRC M-XTAL, FRAGILE, W/SLI SHOW DK BRN OIL & V-FAINT ODOR ON BREAK; CRUSH FEW MICRO-DROPS FROM FLUOR PORTION; 30-60 MIN SAMPLES.

LS: LT-GRAY; VF-XTAL; DENSE, PLATEY; SMOOTH; CHALKY IN PART; NO APPARENT POROSITY; NO SHOWS.

LS: LT-GRAY; VF-XTAL; DENSE; NO APPARENT POROSITY; NO SHOWS;

SHALE: DARK GRAY;

LS: LT GRAY, LT BRN, WHITE; MIC-VF XTAL; DENSE TO V-CHALKY, WASHES 30 MIN WHITE; TRC SCAT OOM POR; NO SHOWS;

LS: LT-GRAY; VF-XTAL; SLI CHALKY IN PART; MOSTLY DENSE; NO APPARENT POROSITY; NO SHOWS;

LS: LT GRAY; VF-XTAL; FINE GRAINSTONE; FINE VUG & INT GRAIN POROSITY WITH DK BRN SPECKLED STAIN AND SLI SHOW OIL AND ODOR ON BREAK; 4248, DECR 30 MIN..

LS: LT-GRAY; VF-XTAL; MED-COARSE OOM; MOSTLY BARREN, FEW PORES W/SPTD DK BRN STAIN; NO OIL OR ODOR; TRC 30 MIN, INCR 60 MIN.

LS: GRAY; VF-XTAL; DENSE, HARD; SCAT F-M VUG POROSITY; SPOTTED DK BRN STAIN, STRONG ODOR, SLI SHOW GASSY OIL ON BREAK; STARTS 4278 STOP SAMP;

SH: BLACK, FEW PC IN 4278-30 MIN;

LS: GRAY; VF-F XTAL; COARSE VUG POROSITY WITH DK BRN STAIN, SLI SHOW OIL, STRONG ODOR; 4286-30 MIN.

LS: DOLOMITIC; LT BRN; F-XTAL; SUCROSIC; TIGHT INT XTAL POROSITY; NO FLUOR; NO SHOWS; 4300.

LS: LT BRN; VF-F XTAL; DENSE TO CHALKY IN PART; SLI SHALEY; V-TIGHT INT XTAL POR; NO SHOWS.

LS: LT-BRN WITH LT GRAY CHERT; VF-XTAL; SOFT CHALK INCLUDED; NO APPARENT POROISTY, NO SHOWS; 4308-30 MIN.

HUSHPUCKNEY 4310 (-1494)

SHALE: BLACK; FEW PC 4320.

LS: LT-MD GRAYISH BRN; MOST VF-XTAL; FEW PC COARSE RHOMBIC CALCITE IN RELIEF W/SHOW DK BRN FREE OIL; YEL FLUOR; NO ODOR; STARTS 4320, INCR 30 MIN. TO 10% W/FAINT ODOR AT BEST;

LS: LT-BRN; VF-XTAL; SLI CHALKY; ONLY TIGHT INT XTAL POROSITY AND SCATTERED PIN PT VUG; NO SHOW OR ODOR;

LS: LT-MD BRN; MOSTLY DENSE; SCATTERED PIN PT VUGS W/DK BRN STAIN; ONLY V-SLI SHOW OIL AT BEST; NO ODOR; 30 MIN.

LS: DK BRN; VF-XTAL; DENSE; SMOOTH; INCLUDES SMOKEY CHERTS; NO APPARENT POROSITY; NO SHOWS. 4370.

LS: MD-DK BRN W/ SCATTERED DK GRAY PELLETS & GRAINS; PACKED MD-CRS OOLITE; TIGHT; 1 PC PIN PT VUG W/STAIN; NO OIL, NO ODOR; 4380.

SILTST: GREENISH; CALCITIC; 4390.

TIH, RECONDITION 75 MIN BEFORE TOH.

DST #2: 4163-4185: WEAK BLOW; 5-15-30-60; 5; MUD W/OIL SPOTS; SIP: 666-940; FP: 28-25, 26-26.

MORGAN MUD CHECK: 4199: 03/21-1pm WHILE DRILLING: VIS 50, WT 9.3, WL 9.6, CHL 2300, LCM 1#.

CIRC 75 MIN BEFORE TOH.

DST #3: 4224-4248: WEAK INCR BLOW 6", 5-15-30-60; 5' OIL, 25' WMCO, 125' OCM; SIP: 753-751, FP: 35-46, 51-88.

CIRC 60 MIN BEFORE DRILL AHEAD

MORGAN MUD CHECK: 4260: 03/22-3pm WHILE TESTING: VIS 62, WT 9.1, WL 7.2, CHL 2300, LCM 1#.

CIRC 75 MIN BEFORE TOH.

DST #4: 4254-4260: INCR BLOW 11"; 5-15-30-60; 490' WATER; SIP: 596-597; FP: 37-79, 91-231.

CIRC 60 MIN BEFORE DRILLING AHEAD.

CIRC 75 MIN BEFORE TOH

DST #5: 4265-4278: WEAK SURF BLOW; 5-15-15-30; 5' OIL, 55' OCM; SIP: 635-647; FP: 29-30, 34-41

CIRC 60 MIN BEFORE DRILL AHEAD.

CIRC 90 MIN BEFORE TOH.

DST #6: 4273-4286: BOB 3 MIN; 5-15-30-60; 924' WATER W/SHOW OIL; SIP: 564-580; FP: 81-143, 156-351.

CIRC 30 MIN BEFORE DRILLING.

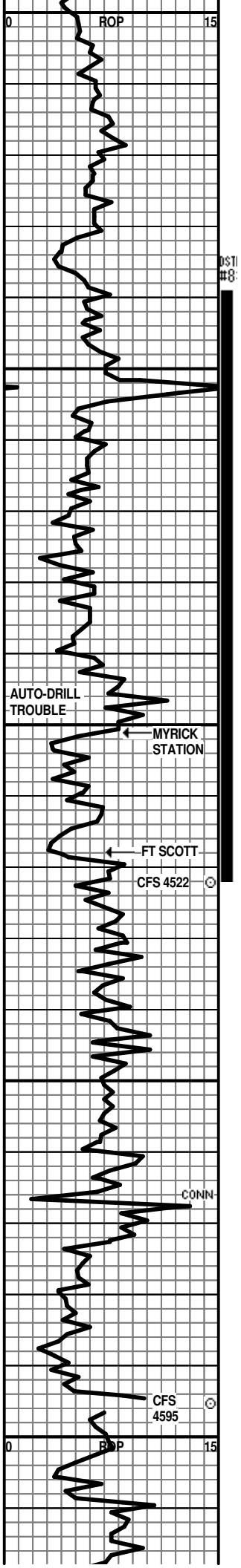
MORGAN MUD CHECK: 4286: 03/23-2pm DURING DST: VIS 54, WT 9.3, WL 7.2, CHL 3100, LCM 1#.

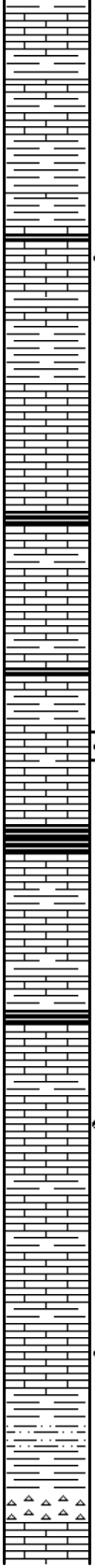
CIRC 60 MIN BEFORE TOH

DST #7: 4310-4321: BOB/2 MIN; 5-15-30-60; 60' GIP, 1550 ' OIL; SIP: 737-710, FP: 81-182, 187-584

CIRC 60 MIN BEFORE DRILLING.

MORGAN MUD CHECK: 4321: 03/24-3pm: VIS 48, WT 9.3, WL 8.0, CHL 2600, LCM 1#.





4400

LS: LT-MD BRN; VF-XTAL; SLI CHALKY; NO APPARENT POROSITY; NO SHOWS.

LS: AS ABOVE WITH SHALE: GREEN, MAROON, MOTTLED;

SH: GREEN, MAROON, MOTTLED, MARLY; INCR 4430.

LS: LT-MD BRN; VF-XTAL; DENSE; SUB-VIT; TRC FINE VUG POROSITY & YEL SPOTTED FLUOR (SOME DUE TO CHALK); W/ POSSIBLE V-LT SPOTTED STAIN ON 1-2 PIECES; 4450.

4450

SH: GRAY;

LS: GRAYISH BRN; VF-XTAL; SLI GRAN; SCATTERED DARK GRAY GRAINS; DENSE; V-POOR INT GRAIN POR AT BEST; NO SHOWS.

SH: DARK GRAY; POOR REP;

PAWNEE 4472 (-1656)

LS: GRAYISH BRN; VF-XTAL; DENSE; NO APPARENT POROSITY; NO SHOWS.

MORGAN MUD CHECK: 4478: 03/25-3pm: VIS 49, WT 9.2, WL 8.4, CHL 2200, LCM 2#.

LS: AS ABOVE.

SH: DARK GRAY; POOR REP;
LS: DENSE

4500

SH: GRAY, MAROON

CIRC 75 MIN BEFORE TOH.

LS: WHITE, LT BRN; VF-F XTAL; FINE VUG AND TIGHT INT XTAL POROSITY; SPOTTED STAIN & YEL FLUOR; CRUSH LT BRN OIL; NO ODOR; 4522, INCR 2-5% 30m

DST #8: 4443-4522: WEAK BLOW; 5-15-15-30; 10' MUD W/OIL SPOTS; SIP: 657-466; FP: 64-56, 74-79

CIRC 30 MIN BEFORE DRILLING AHEAD.

SH: BLACK; CARBON; WASHES 60 MIN SAMPLE GRAY;

LS: MD-DK BRN; VF-XTAL; PACKED OOLITE; NO VISIBLE POROSITY; NO SHOW;

MORGAN MUD CHECK: 4522: 03/26-8am WHILE CIRC; VIS 62, WT 9.1, WL 7.6, CHL 2800, LCM 1#.

LS: LT-MD BRN; VF-XTAL; SCATTERED OOL BEING DARKER THAN MATRIX; NO APPARENT POROSITY; NO SHOW;

L. CHEROKEE SH 4540 (-1724)

LS: GRAYISH BRN; VF-XTAL; MOSTLY DENSE; OOLITIC; NO VISIBLE POROSITY; NO FLUOR; NO SHOWS.

4550

LS: LT GRAYISH BRN; VF-XTAL; TIGHT INT XTAL POR; SCAT YEL SPOTTED FLUOR W/NO VISIBLE STAIN; 1 PIECE FINE VUG POROSITY W/ SPOTTED STAIN, NO OIL OR ODOR; 4570.

LS: LT GRAYISH BRN; VF-XTAL; CHALKY IN PART; NO APPARENT POROSITY; NO SHOWS; WITH DK GRAY & GREEN SHALE INTERBEDS;

LS/SH AS ABOVE;

LS: GRAYISH BRN; VF-XTAL; TRC FINE GLAUC; POOR APPARENT POROSITY; TRC FLUOR W/ ONLY DULL SPOTTED STAIN; NO OIL OR ODOR; 30 MIN; SLI IMPROV W/TRC PIN PT STAIN 60 MIN.

4600

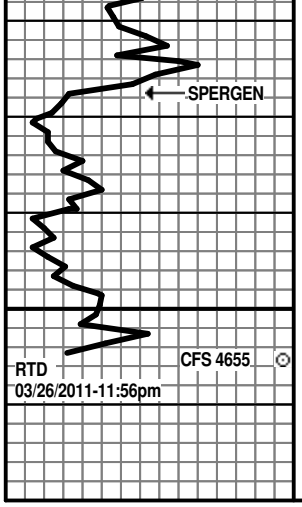
SILTST: WHITE; CALCITIC; POOR INT GRAIN POR; NO SHOWS; 4610.

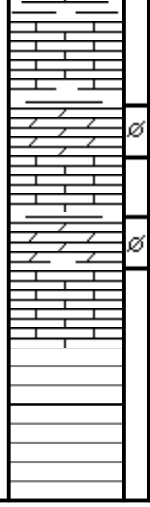
SILTST: GREEN; SHALEY; TRC VARI-COLOR CHERT;

MISSISSIPPI 4609 (-1793)

CHERT: WHITE, TRC VARI-COLOR, QUARTZOSE IN PART; FRESH; 50% OF 4630.

LS: LT-BRN, CREAM; VF-XTAL; OOLITIC; V-POOR INT OOL POROSITY; NO SHOWS; 4630, 4640.





4650

LS: AS ABOVE;

SPERGEN 4627 (-1811)

DOL: LT-MD BRN, MOTTLED DARK GRAY; F-XTAL; GOOD INT XTAL & VUG POROSITY; ONLY DULL FLUOR; NO SHOWS; FLOODS 4650.

LS: DOLOMITIC; MOTTLED AS ABOVE; SLI FOS; TRC SHELLS; VF-F XTAL; TIGHT; NO SHOWS;

DOL: AS ABOVE;

ROTARY TOTAL DEPTH 4655 (-1839)

CIRC 90 MIN BEFORE TRIPPING FOR LOGS

LOG-TECH LTD 4657

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

Kansas
Corporation Commission

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

July 08, 2011

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

Re: ACO1
API 15-101-22283-00-00
Spatz 3-11
NW/4 Sec.11-19S-29W
Lane 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