



**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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- 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

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1138598

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

Drill Stem Tests Taken <input 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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  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
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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) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 6780

Cell 785-324-1041

Date	4-25-13	Sec.	18	Twp.	14	Range	18	County	Ellis	State	KS	On Location		Finish	2:45 p.m.
Lease								Well No.		Owner					
ROHR								3		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Contractor								Type Job							
Royal #1								Surface							
Hole Size				T.D.				Charge To							
12 1/4				600				G.L.M.							
Csg.				Depth				Street							
8 5/8				599											
Tbg. Size				Depth				City State							
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.				Shoe Joint				Cement Amount Ordered							
20								2500m 3 1/2" 2 1/2" 2"							
Meas Line				Displace											
				36 1/2 BCL											
<b>EQUIPMENT</b>								<b>Common</b>							
Pumptrk		No.		Cementer		Helper		Poz. Mix							
16				Coy											
Bulktrk		No.		Driver		Gel.									
				Coy											
Bulktrk		No.		Driver		Calcium									
14				Clayton											
<b>JOB SERVICES &amp; REMARKS</b>								<b>Hulls</b>							
Remarks:								Salt							
Rat Hole								Flowseal							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
8 5/8 on bottom Est Circulation								Handling							
Mix 250 351 Displace								Mileage							
Cement Circulated								<b>FLOAT EQUIPMENT</b>							
								Guide Shoe							
								Centralizer 8 5/8 unrim Plug							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								Mileage							
								Tax							
								Discount							
								Total Charge							

X Signature Doug Budig

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. **8784**

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-1-13	18	14	18	FI.S	KS		8:45pm
Lease <b>ROHR</b>				Well No. <b>3</b>		Owner	
Contractor <b>Royal #1</b>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.			
Type Job <b>Production String</b>				Charge To <b>C.L.M.</b>			
Hole Size <b>7 7/8</b>		T.D. <b>3850</b>		Street			
Csg. <b>5 1/2 14#</b>		Depth <b>3840</b>		City State			
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Tool <b>Bit Collar</b>		Depth <b>1314</b>		Cement Amount Ordered <b>200 gal 10% Salt + 500 gal mud Jar</b>			
Cement Left in Csg. <b>44.26</b>		Shoe Joint <b>44.26</b>		Meas Line Displace			
<b>EQUIPMENT</b>				<b>Common</b>			
Pumptrk <b>9</b>	No.	Cementer <b>Bill</b>		Poz. Mix			
Bulktrk	No.	Helper <b>Bob</b>		Gel.			
Bulktrk <b>3</b>	No.	Driver <b>Bill</b>		Calcium			
<b>JOB SERVICES &amp; REMARKS</b>				<b>Hulls</b>			
Remarks:				Salt			
Rat Hole <b>30SK</b>				Flowseal			
Mouse Hole <b>15SK</b>				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
<b>5 1/2 50 gal 3840 - 150 gal 3796</b>				Handling			
<b>ES + Creation Pump 500 gal mud Jar</b>				Mileage			
<b>1 JBL spacer Cement - Rat hole mouse hole</b>				<b>FLOAT EQUIPMENT</b>			
<b>Cement - 5 1/2 with 155SK Jar - lines</b>				Guide Shoe <b>5 1/2</b>			
<b>Displace Plug Plug lander 1500ft. Hole</b>				Centralizer <b>7 Turb's</b>			
<b>Release Pressure Dry</b>				Baskets <b>1</b>			
				AFU Inserts <b>Port collar</b>			
				Float Shoe <b>1</b>			
				Latch Down <b>1</b>			
				Pumptrk Charge			
				Mileage			
				Tax			
				Discount			
<b>X</b>				Total Charge			
Signature							



## DRILL STEM TEST REPORT

Prepared For: **GLM Company**

PO Box 193  
Russell, Kansas 67665+0193

ATTN: Jeff Lawler

**Rohr #3**

**18/14S/18W/Ellis**

Start Date: 2013.04.28 @ 11:51:00

End Date: 2013.04.28 @ 17:23:00

Job Ticket #: 17485                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.04.28 @ 17:41:48







# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17485      **DST#: 1**  
 Test Start: 2013.04.28 @ 11:51:00

## Tool Information

Drill Pipe:	Length: 3362.00 ft	Diameter: 3.80 inches	Volume: 47.16 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			Total Volume: 47.16 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3372.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.50 ft			
Tool Length:	92.50 ft			
Number of Packers:	2	Diameter:	6.75 inches	

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3357.00	
Hydraulic Tool	5.00			3362.00	
Packer	5.00			3367.00	20.00      Bottom Of Top Packer
Packer	5.00			3372.00	
Perforations	6.00			3378.00	
Change Over Sub	0.75			3378.75	
Drill Pipe	32.00			3410.75	
Change Over Sub	0.75			3411.50	
Anchor	28.00			3439.50	
Recorder	1.00	6749	Inside	3440.50	
Recorder	1.00	6838	Outside	3441.50	
Bullnose	3.00			3444.50	72.50      Bottom Packers & Anchor

**Total Tool Length: 92.50**





# DRILL STEM TEST REPORT

## FLUID SUMMARY

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17485      **DST#: 1**  
 Test Start: 2013.04.28 @ 11:51:00

### 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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.60 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3500.00 ppm			
Filter Cake: 1.00 inches			

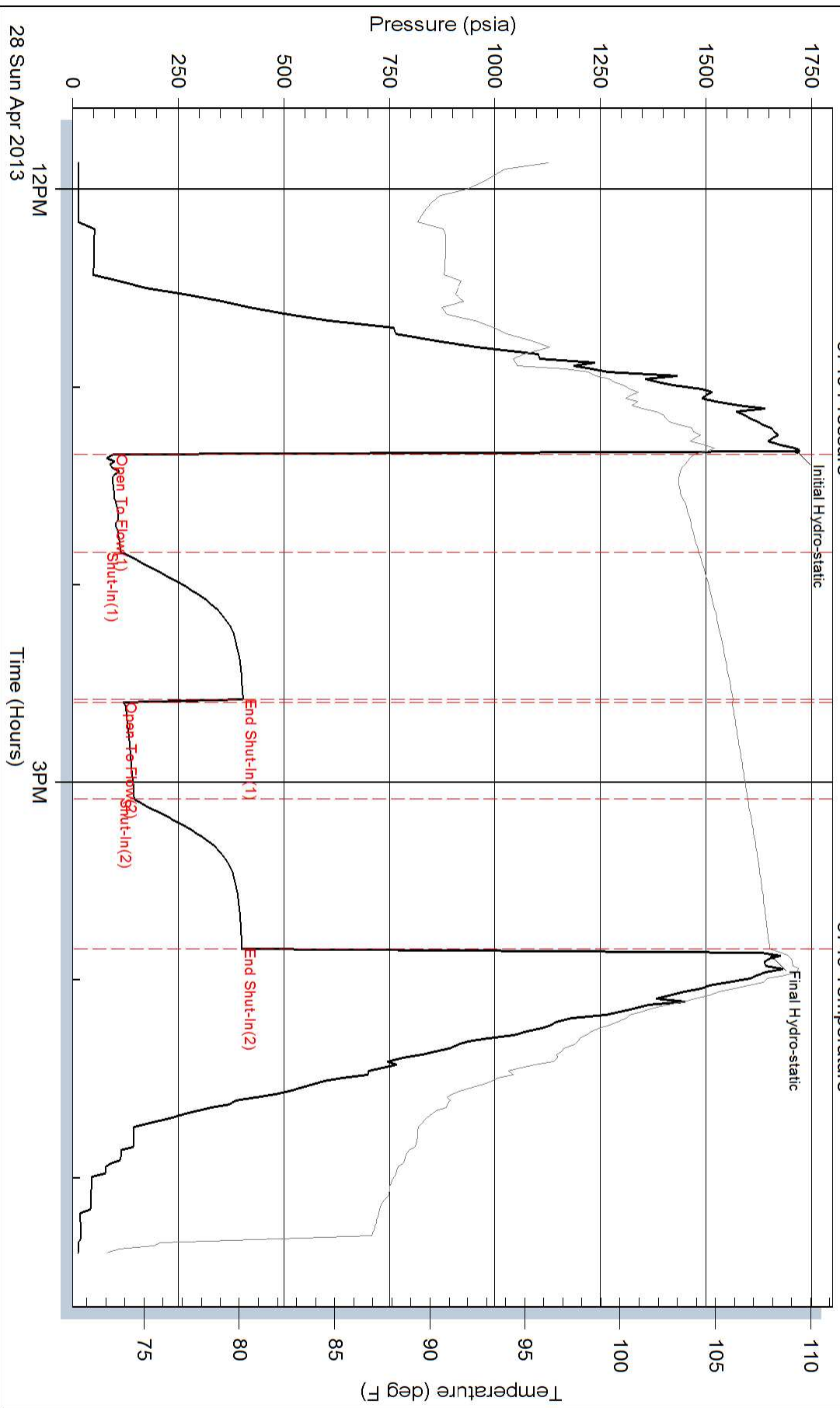
### Recovery Information

Recovery Table

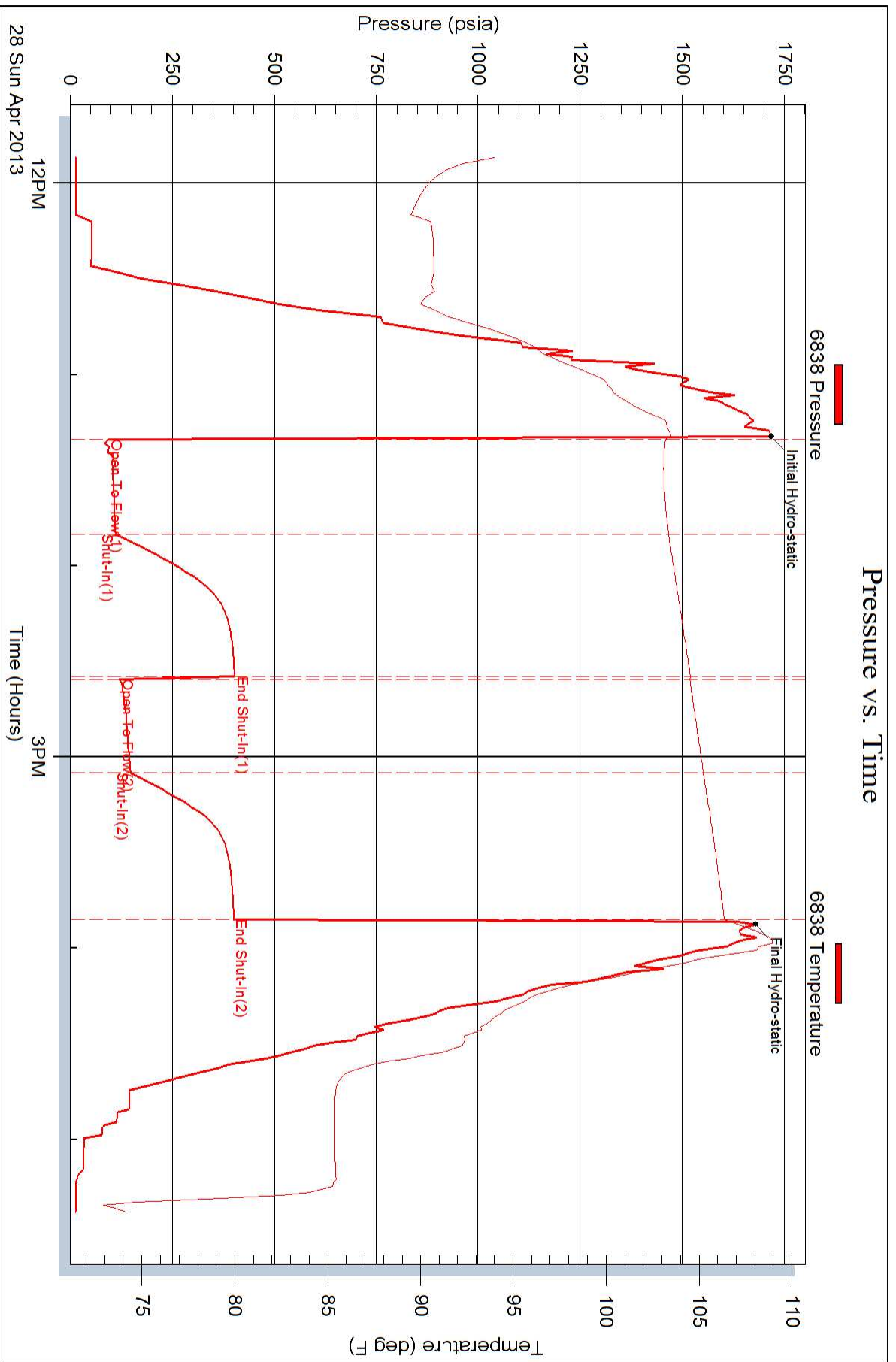
Length ft	Description	Volume bbl
0.00	2360 Gas in pipe 100%	0.000
120.00	Oily, Gassy Mud	1.683
0.00	Oil 30% Gas 35% Mud 35%	0.000
100.00	Oil cut Mud	1.403
0.00	Oil 5% Mud 95%	0.000

Total Length: 220.00 ft      Total Volume: 3.086 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **GLM Company**

PO Box 193  
Russell, Kansas 67665+0193

ATTN: Jeff Lawler

**Rohr #3**

**18/14S/18W/Ellis**

Start Date: 2013.04.28 @ 23:07:00

End Date: 2013.04.29 @ 03:02:30

Job Ticket #: 17486                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.05.01 @ 16:46:24





# DRILL STEM TEST REPORT

GLM Company  
 PO Box 193  
 Russell, Kansas 67665-0193  
 ATTN: Jeff Lawler

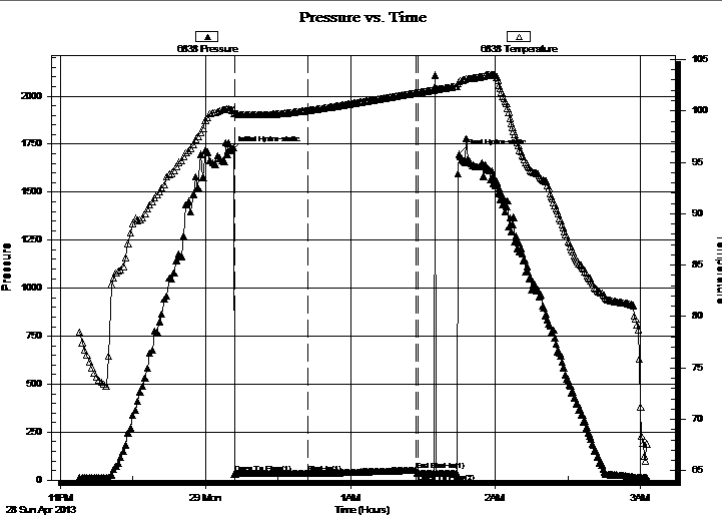
**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17486      **DST#: 2**  
 Test Start: 2013.04.28 @ 23:07:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 00:12:00  
 Time Test Ended: 03:02:30  
 Interval: **3443.00 ft (KB) To 3464.00 ft (KB) (TVD)**  
 Total Depth: 3464.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Hays/10  
 Reference Elevations: 2095.00 ft (KB)  
 2089.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 6838      Outside**  
 Press @ RunDepth: 52.59 psia @ 3461.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2013.04.28      End Date: 2013.04.29      Last Calib.: 2013.04.29  
 Start Time: 23:08:00      End Time: 03:02:30      Time On Btm: 2013.04.29 @ 00:11:00  
 Time Off Btm: 2013.04.29 @ 01:45:00

**TEST COMMENT:** 1ST Open 30 Minutes/Weak blow/Blow built to 1/4 inch then died in 27 minutes  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 15 Minutes/Dead no blow /Flush tool didnt help/Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1716.79	100.08	Initial Hydro-static
1	33.38	99.78	Open To Flow (1)
32	34.59	100.04	Shut-In(1)
76	52.59	101.74	End Shut-In(1)
77	34.56	101.78	Open To Flow (2)
94	1698.64	102.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Oil spotted Mud/Mud 100%	0.01

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17486      **DST#: 2**  
 Test Start: 2013.04.28 @ 23:07:00

## Tool Information

Drill Pipe:	Length: 3428.00 ft	Diameter: 3.80 inches	Volume: 48.09 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume: 48.09 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3443.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	21.00 ft				
Tool Length:	41.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3428.00	
Hydraulic Tool	5.00			3433.00	
Packer	5.00			3438.00	20.00      Bottom Of Top Packer
Packer	5.00			3443.00	
Anchor	16.00			3459.00	
Recorder	1.00	6749	Inside	3460.00	
Recorder	1.00	6838	Outside	3461.00	
Bullnose	3.00			3464.00	21.00      Bottom Packers & Anchor

**Total Tool Length: 41.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

GLM Company

**18/14S/18W/Ellis**

PO Box 193  
Russell, Kansas 67665+0193

**Rohr #3**

Job Ticket: 17486

**DST#: 2**

ATTN: Jeff Lawler

Test Start: 2013.04.28 @ 23:07:00

### 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Oil spotted Mud/Mud 100%	0.014

Total Length: 1.00 ft      Total Volume: 0.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

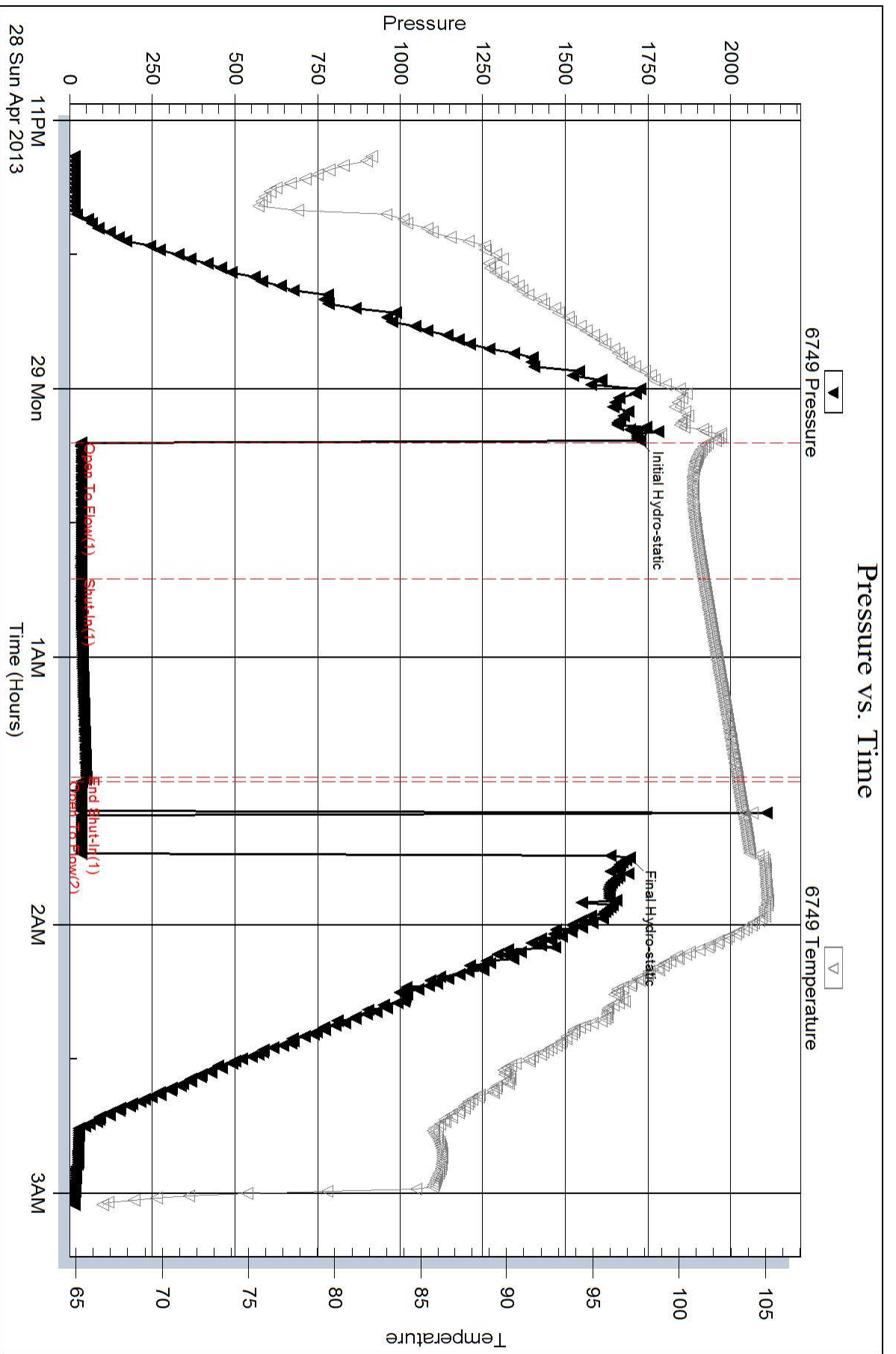
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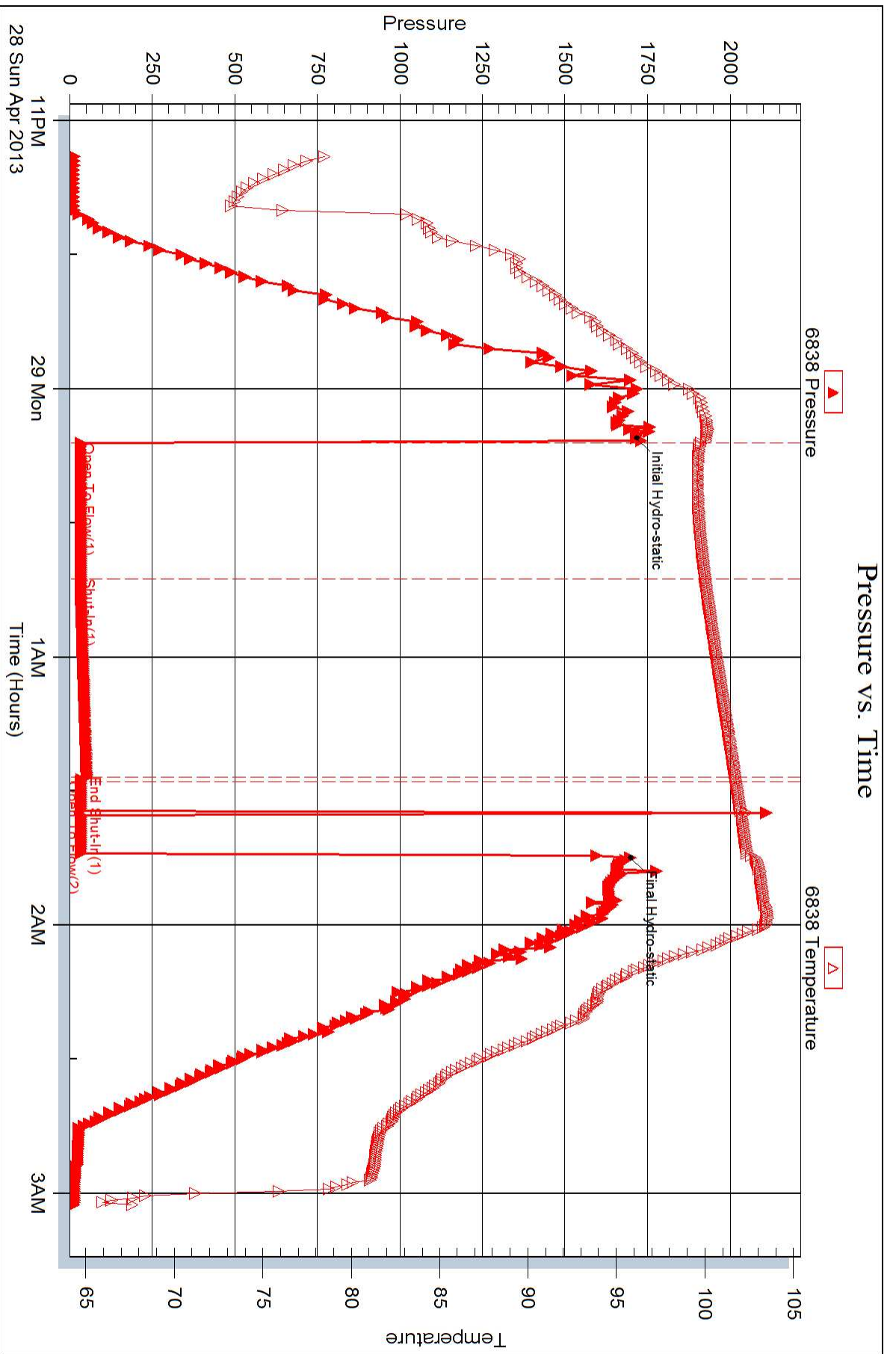
Laboratory Name:

Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **GLM Company**

PO Box 193  
Russell, Kansas 67665+0193

ATTN: Jeff Lawler

**Rohr #3**

**18/14S/18W/Ellis**

Start Date: 2013.04.29 @ 14:13:00

End Date: 2013.04.29 @ 19:47:30

Job Ticket #: 17487                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.04.29 @ 19:57:35



# DRILL STEM TEST REPORT

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17487      **DST#: 3**  
 Test Start: 2013.04.29 @ 14:13:00

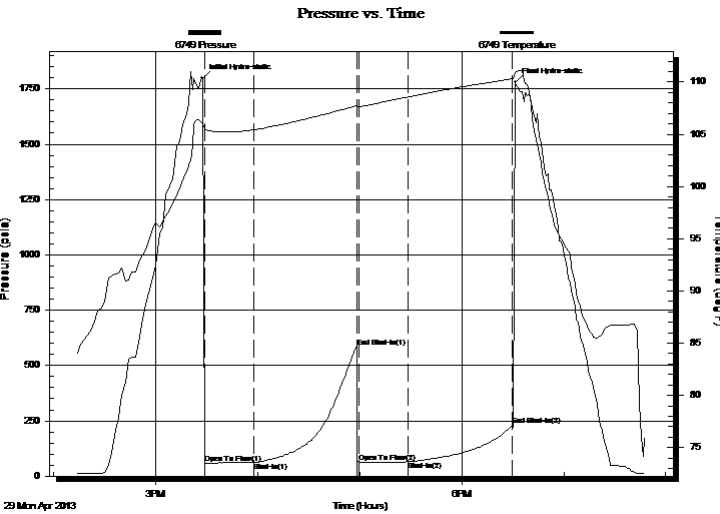
## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 15:28:30  
 Time Test Ended: 19:47:30  
 Interval: **3510.00 ft (KB) To 3575.00 ft (KB) (TVD)**  
 Total Depth: 3575.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Hays/10  
 Reference Elevations: 2095.00 ft (KB)  
 2089.00 ft (CF)  
 KB to GR/CF: 6.00 ft

## Serial #: 6749      Inside

Press @ RunDepth: 64.77 psia @ 3571.29 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2013.04.29      End Date: 2013.04.29      Last Calib.: 2013.04.29  
 Start Time: 14:13:00      End Time: 19:47:30      Time On Btm: 2013.04.29 @ 15:27:30  
 Time Off Btm: 2013.04.29 @ 18:31:30

TEST COMMENT: 1ST Open      30 Minutes/Weak blow /Blow built to 1/2 inch then died to 1/4 inch  
 1ST Shut In      60 Minutes/No blow back  
 2ND Open      30 Minutes/Weak blow /Blow built to 1/2 inch  
 2ND Shut In      60 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1797.15	106.05	Initial Hydro-static
1	58.20	105.56	Open To Flow (1)
30	61.98	105.42	Shut-In(1)
91	585.34	107.71	End Shut-In(1)
92	61.12	107.62	Open To Flow (2)
121	64.77	108.58	Shut-In(2)
182	230.43	110.31	End Shut-In(2)
184	1779.48	110.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Slightly oil cut mud/Oil 3% Mud 97%	0.28

## Gas Rates

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



# DRILL STEM TEST REPORT

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

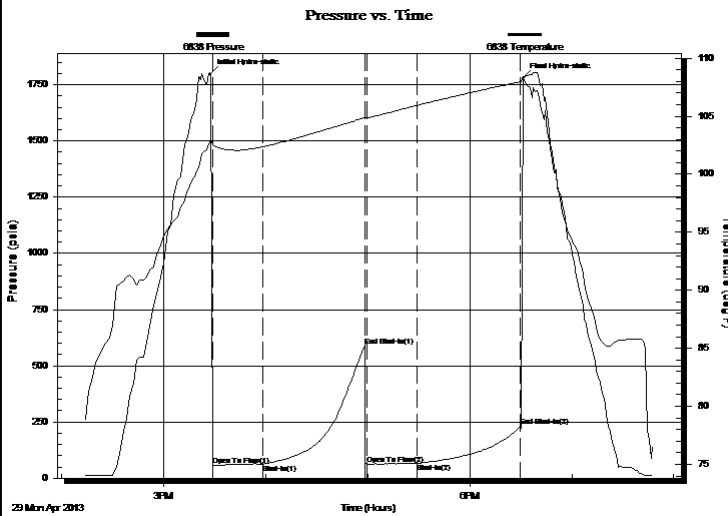
**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17487      **DST#: 3**  
 Test Start: 2013.04.29 @ 14:13:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 15:28:30  
 Time Test Ended: 19:47:30  
 Interval: **3510.00 ft (KB) To 3575.00 ft (KB) (TVD)**  
 Total Depth: 3575.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Hays/10  
 Reference Elevations: 2095.00 ft (KB)  
 2089.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 6838      Outside**  
 Press @ RunDepth: 231.43 psia @ 3572.29 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2013.04.29      End Date: 2013.04.29      Last Calib.: 2013.04.29  
 Start Time: 14:13:00      End Time: 19:47:30      Time On Btm: 2013.04.29 @ 15:27:30  
 Time Off Btm: 2013.04.29 @ 18:31:30

**TEST COMMENT:** 1ST Open 30 Minutes/Weak blow /Blow built to 1/2 inch then died to 1/4 inch  
 1ST Shut In 60 Minutes/No blow back  
 2ND Open 30 Minutes/Weak blow /Blow built to 1/2 inch  
 2ND Shut In 60 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1798.17	102.91	Initial Hydro-static
1	57.40	102.60	Open To Flow (1)
31	61.82	102.35	Shut-In(1)
91	585.75	104.87	End Shut-In(1)
92	60.54	104.84	Open To Flow (2)
122	65.43	105.93	Shut-In(2)
182	231.43	107.97	End Shut-In(2)
184	1780.46	108.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Slightly oil cut mud/Oil 3% Mud 97%	0.28

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17487      **DST#: 3**  
 Test Start: 2013.04.29 @ 14:13:00

**Tool Information**

Drill Pipe:	Length: 3521.00 ft	Diameter: 3.80 inches	Volume: 49.39 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 62000.00 lb
			Total Volume: 49.39 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3510.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.29 ft			
Tool Length:	85.29 ft			
Number of Packers:	2	Diameter:	6.75 inches	

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3495.00	
Hydraulic Tool	5.00			3500.00	
Packer	5.00			3505.00	20.00      Bottom Of Top Packer
Packer	5.00			3510.00	
Perforations	5.00			3515.00	
Change Over Sub	0.75			3515.75	
Drill Pipe	31.79			3547.54	
Change Over Sub	0.75			3548.29	
Anchor	22.00			3570.29	
Recorder	1.00	6749	Inside	3571.29	
Recorder	1.00	6838	Outside	3572.29	
Bullnose	3.00			3575.29	65.29      Bottom Packers & Anchor

**Total Tool Length: 85.29**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17487      **DST#: 3**  
 Test Start: 2013.04.29 @ 14:13:00

### 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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

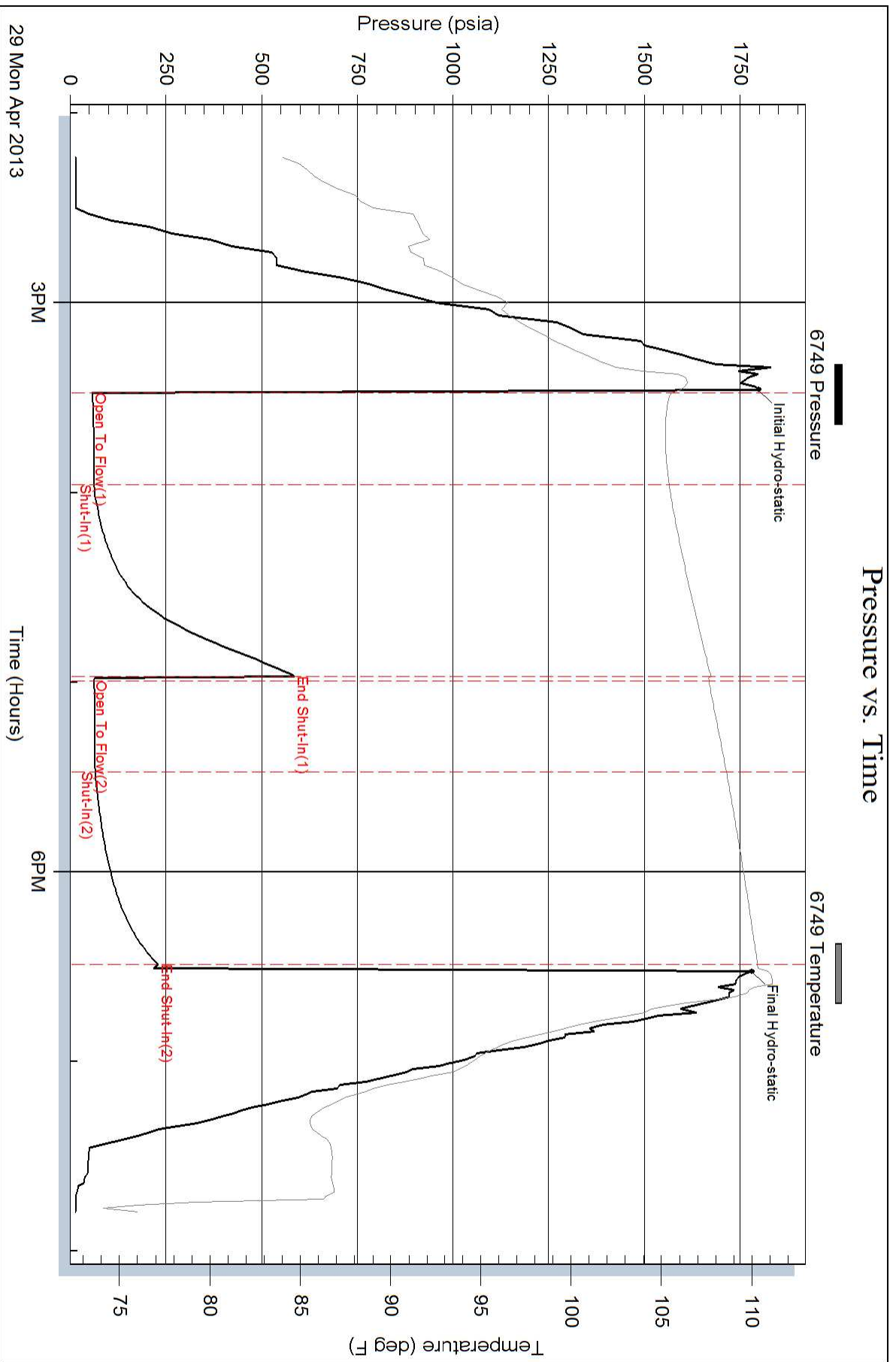
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Slightly oil cut mud/Oil 3% Mud 97%	0.281

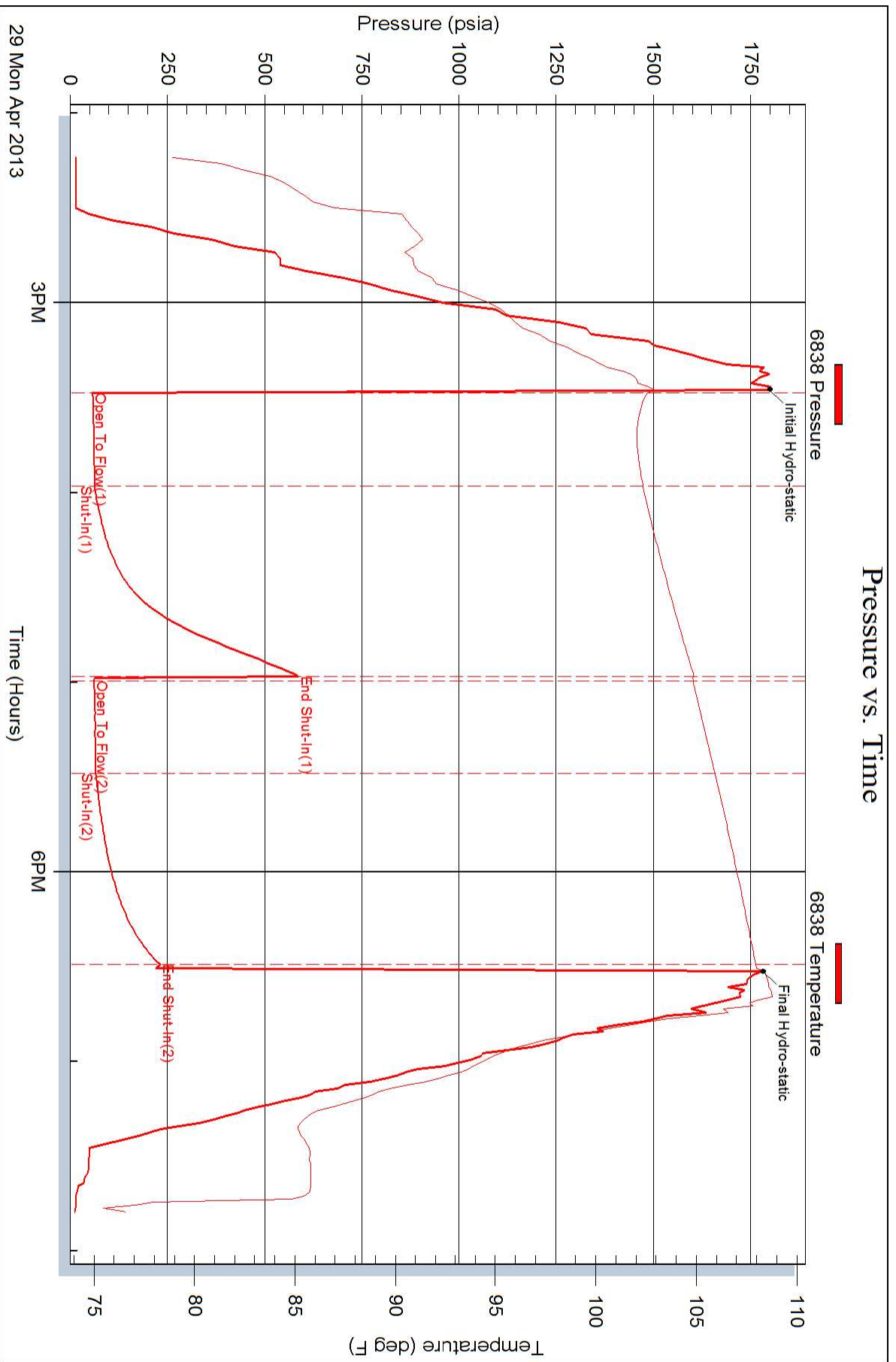
Total Length: 20.00 ft      Total Volume: 0.281 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time





### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **GLM Company**

PO Box 193  
Russell, Kansas 67665+0193

ATTN: Jeff Lawler

**Rohr #3**

**18/14S/18W/Ellis**

Start Date: 2013.04.30 @ 09:15:00

End Date: 2013.04.30 @ 13:43:30

Job Ticket #: 17488                      DST #: 4

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.04.30 @ 14:00:10

GLM Company  
18/14S/18W/Ellis  
Rohr #3  
DST # 4  
Arbuckle  
2013.04.30







# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

GLM Company  
 PO Box 193  
 Russell, Kansas 67665+0193  
 ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
 Job Ticket: 17488      **DST#: 4**  
 Test Start: 2013.04.30 @ 09:15:00

## Tool Information

Drill Pipe:	Length: 3647.00 ft	Diameter: 3.80 inches	Volume: 51.16 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume: 51.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3640.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	76.57 ft				
Tool Length:	96.57 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3625.00	
Hydraulic Tool	5.00			3630.00	
Packer	5.00			3635.00	20.00      Bottom Of Top Packer
Packer	5.00			3640.00	
Perforations	5.00			3645.00	
Change Over Sub	0.75			3645.75	
Drill Pipe	32.07			3677.82	
Change Over Sub	0.75			3678.57	
Anchor	33.00			3711.57	
Recorder	1.00	6749	Inside	3712.57	
Recorder	1.00	6838	Outside	3713.57	
Bullnose	3.00			3716.57	76.57      Bottom Packers & Anchor

**Total Tool Length: 96.57**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

GLM Company  
PO Box 193  
Russell, Kansas 67665+0193  
ATTN: Jeff Lawler

**18/14S/18W/Ellis**  
**Rohr #3**  
Job Ticket: 17488      **DST#: 4**  
Test Start: 2013.04.30 @ 09:15:00

### 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: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	Clean Oil 100%	0.098
23.00	Emulsified Oil cut Mud	0.323
0.00	Emulsified Oil 5% Mud 95%	0.000

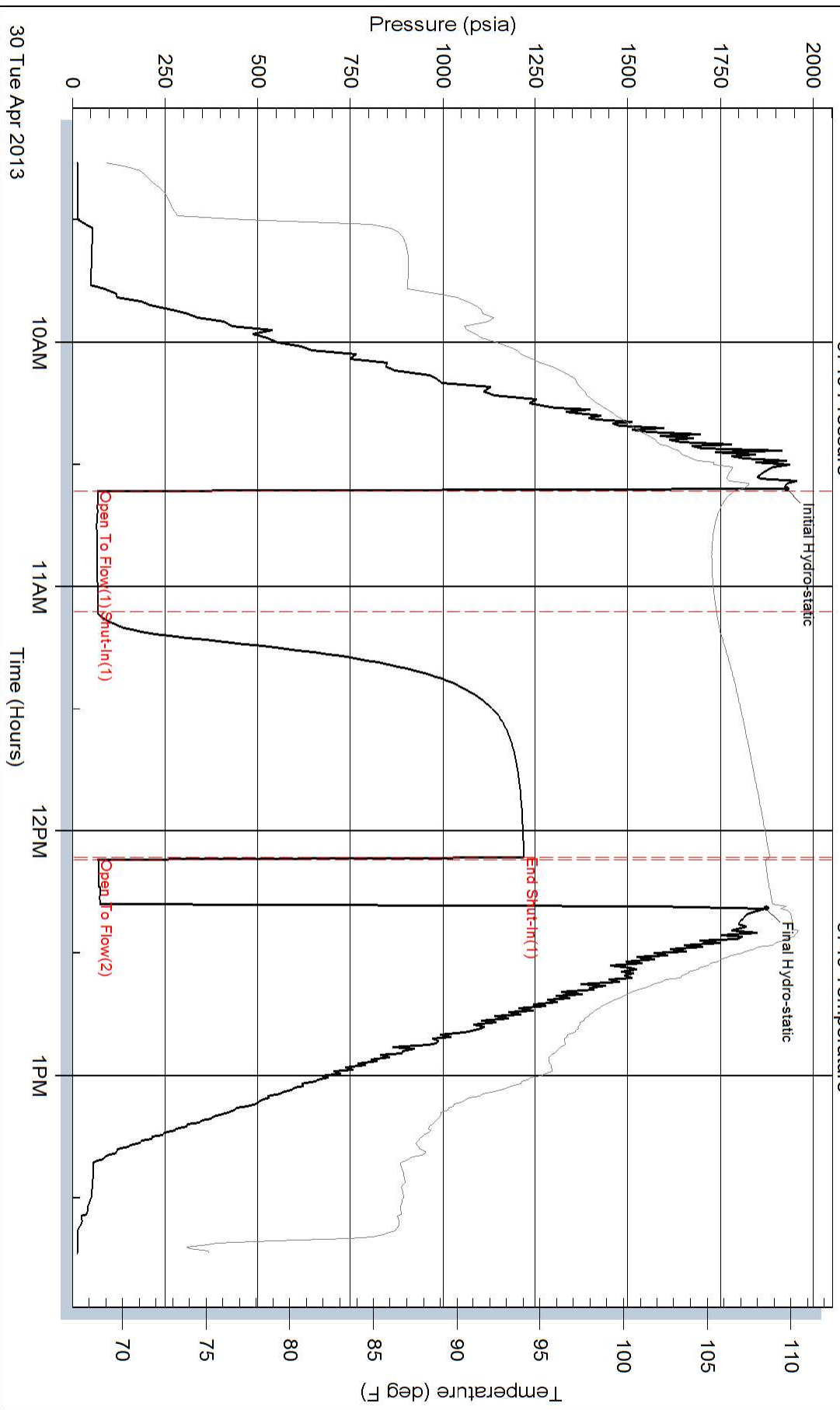
Total Length: 30.00 ft      Total Volume: 0.421 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

