



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](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Flatirons Resources LLC
Well Name	Hollamon McGrew 41-9
Doc ID	1076231

Tops

Name	Top	Datum
Anhydrite base	2091	599
Topeka	3459	-809
Toronto	3716	-1066
Lansing	3734	-1084
base Kansas City	4067	-1417
Marmaton	4096	-1446
Ft. Scott	4244	-1594
Johnson zone	4310	-1660
Mississippian	4343	-1693
TD	4420	-1770

## Summary of Changes

Lease Name and Number: Hollamon McGrew 41-9

API/Permit #: 15-101-22337-00-00

Doc ID: 1076231

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	03/05/2012	03/13/2012
Perf_Depth_1	4322	4309-4322
Perf_Material_1	4' HEC	4' HEC; 250 gal 15% MCA,500gal 15% NE w/2%musol
Perf_Material_3	4' HEC	4' HEC; 250 gal 15% MCA
Perf_Material_4	4' HEC	4' HEC; communicated w/4096-4100
Perf_Material_5	4' HEC 500 gla 15% NE w/2%musol	4' HEC 250 gal 15% MCA; 500 gla 15% NE w/2%musol
Production Interval #1	4096-4100	4096-4322
Production Interval #2	4257-4265	
Save Link	../../kcc/detail/operatorE ditDetail.cfm?docID=10 75511	../../kcc/detail/operatorE ditDetail.cfm?docID=10 76231



**CONFIDENTIAL**

**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
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

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: \_\_\_\_\_



1075511

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
---	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
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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)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Flatirons Resources LLC
Well Name	Hollamon McGrew 41-9
Doc ID	1075511

Tops

Name	Top	Datum
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base Kansas City	4067	-1417
Marmaton	4096	-1446
Ft. Scott	4244	-1594
Johnson zone	4310	-1660
Mississippian	4343	-1693
TD	4420	-1770

# ALLIED CEMENTING CO., LLC. 037424

Federal Tax ID.# 20-5975804

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

SERVICE POINT:  
*Ored Bend, KS*

DATE <i>11-28-11</i>	SEC <i>9</i>	TWP <i>16S</i>	RANGE <i>30W</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
BASE WELLS	WELL # <i>41-9</i>	LOCATION <i>Alaska 85 S north</i>		COUNTY <i>WYOMING</i>	STATE <i>KS</i>		
OLD OR NEW (Circle one)	OWNER <i>Flat Iron Resources</i>						

CONTRACTOR: *Vgl Big #4*

TYPE OF JOB: *2 1/4" TD*

HOLE SIZE: *2 1/4" TD*

CASING SIZE: *2 1/8"*

TUBING SIZE: *2 1/8"*

DEPTH: *238'*

DEPTH: *238'*

DEPTH: *238'*

MEAS. LINE: *155 FT*

CEMENT LEFT IN CSG.:

PERFS:

DISPLACEMENT:

EQUIPMENT:

PUMP/TRUCK: *Cement*

HELPER: *Dylan*

BULK TRUCK: *Kevin*

DRIVER: *Kevin*

BULK/TRUCK: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

DRIVER: *Kevin*

# *422/191*

CEMENT

AMOUNT ORDERED: *1000 lbs*

*1922 A - 306 cc extra gel*

COMMON: *2.60 @ 16.25 = 32.50.00*

GEL: *4 @ 21.25 = 85.00*

CHLORIDE: *7 @ 58.20 = 407.40*

ASC: *4 @ 11.00 = 44.00*

DEPTH OF JOB: *2.25*

PUMP TRUCK CHARGE: *1.25.00*

EXTRA FOOTAGE: *700.00*

MILEAGE: *100 @ 7.00 = 700.00*

MANIFOLD: *100 @ 4.00 = 400.00*

HANDLING: *211*

MILEAGE: *211 x 50 x .11 = 1160.50*

TOTAL: *5377.95*

REMARKS:  
*Pipe was below 2000 circulation  
 with 1000 lbs. bulk 200.00  
 cross 1 1/2" of 100 gel. Displaces  
 with 1 1/2" of 100 gel. Displaces  
 about 1000 lbs. extra.  
 Plug down @ 5:00 AM*

CHARGE TO: *Flat Iron Resources*

STREET: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

DEPTH OF JOB	2.25	1.25.00
PUMP TRUCK CHARGE		1.25.00
EXTRA FOOTAGE		700.00
MILEAGE	100	700.00
MANIFOLD		
L.V.M.	100	400.00
TOTAL		2225.00

To Allied Cementing Co., L.L.C.  
 I hereby requested for 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: *7602.65*  
 DISCOUNT: *2650.78*  
 TOTAL: *4951.87*

PRINTED NAME: *Kevin Handwerker*

SIGNATURE: *Kevin Handwerker*

*Thank You*

IF PAID IN 30 DAYS



# ALLIED CEMENTING CO., LLC. 036051

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:

DATE <u>12/19/11</u>	SEC. <u>9</u>	TWP. <u>16</u>	RANGE <u>30</u>	CALLED OUT	ON LOCATION <u>11:00 AM</u>	JOB START <u>8:30</u>	JOB FINISH <u>9:30 PM</u>	
LEASEE <u>McGowan</u>				LOCATION <u>Healy 5N NW Address</u>	COUNTY <u>Lawrence</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one) <u>NEW</u>				OWNER <u>Same</u>				

CONTRACTOR Val

TYPE OF JOB Production

HOLE SIZE 2 7/8 T.D.

CASING SIZE 5 1/2 DEPTH 4419

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL OK DEPTH 8037 - 18

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT 21

CEMENT LEFT IN CSG. 21

PERFS. 54 H2O - 52 H2O mud > 106 noted

DISPLACEMENT 57 H2O

EQUIPMENT

PUMP TRUCK CEMENTER Alan

# 422 HELPER Tony

BULK TRUCK DRIVER 404

BULK TRUCK DRIVER 394

REMARKS:

Al Can. Concrete, Midway, TX. 180 SKs Ca. 100m Sac 2 7/8 5" C. 180 SKs  
around 5 1/2" wash up pipe for plug to 54 2048 0 52 88 C. 180 SKs SERVICE  
1000 PSI. 1200 PSI. Cement 1200 PSI. 1200 PSI. 1200 PSI.  
5 1/2" R. H. 20 SKs M.H. Mix 430 SKs down  
5 1/2" wash tank & expand pipe plug to 70' w/  
5 1/2" 800 PSI. H2O w/ 1000 PSI. 1200 PSI. 1200 PSI. 1200 PSI.  
2000 PSI. 700 PSI. Close.  
Cement did Gravel Truck in  
Amory, Tex 67 San

CHARGE TO: Flat Iron Resources

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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.

PRINTED NAME \_\_\_\_\_

SIGNATURE [Signature]

CEMENT

AMOUNT ORDERED 180 SKs Ca. 100m Sac 2 7/8 5" C. 180 SKs  
5" C. 180 SKs ALW 1/4 Flo Seal  
SRQ gel WFA II

COMMON 180 SKs @ 16.25 = 2925.00

POZMIX @ \_\_\_\_\_

GEL 3 @ 21.25 = 63.75

CHLORIDE @ \_\_\_\_\_

~~SRQ~~ ALW - 480 SKs @ 14.00 = 6720.00

SALT 18 SKs @ 23.95 = 431.10

Gilsonite 200 lb @ .89 = 178.00

FloSul 100 lb @ 2.20 = 220.00

WFA II 500 gal @ 1.25 = 625.00

HANDLING 737 SK @ 2.25 = 1658.25

MILEAGE 14 SK/mile @ \_\_\_\_\_ = 1058.00

TOTAL 17851.60

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_ @ 4419 = 2405.00

EXTRA FOOTAGE \_\_\_\_\_

MILEAGE 50 miles @ 7.00 = 350.00

MANIFOLD = Head @ \_\_\_\_\_ = 200.00

1-TR Vehicle 50 miles @ 4.00 = 200.00

Rotating Head @ \_\_\_\_\_ = 250.00

TOTAL 3405.00

Watch Down Plug & Float Equipment 249.00

ALW Tool 3721.00

Centralizers 11 @ 49.00 = 539.00

Barrels 3 @ 228.00 = 684.00

Rotating Switches - 15 @ 76.00 = 1140.00

Quill Shoe - 15 @ 319.00 = 319.00

TOTAL 6642.00

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Flatirons Resources LLC

303 E 17th Ave STE 940  
Denver CO 80203

ATTN: Gary Shaffer

**9-16s-30w Lane Co KS**

**Hollamon-McGrew41-9**

Job Ticket: 44906

**DST#: 1**

Test Start: 2011.12.04 @ 04:56:15

## GENERAL INFORMATION:

Formation: "K"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:57:00

Time Test Ended: 14:31:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 48

**Interval: 3971.00 ft (KB) To 3996.00 ft (KB) (TVD)**

Reference Elevations: 2650.00 ft (KB)

Total Depth: 3996.00 ft (KB) (TVD)

2640.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6668 Outside**

Press @ Run Depth: 115.00 psig @ 3972.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.04

End Date:

2011.12.04

Last Calib.: 2011.12.04

Start Time: 04:56:15

End Time:

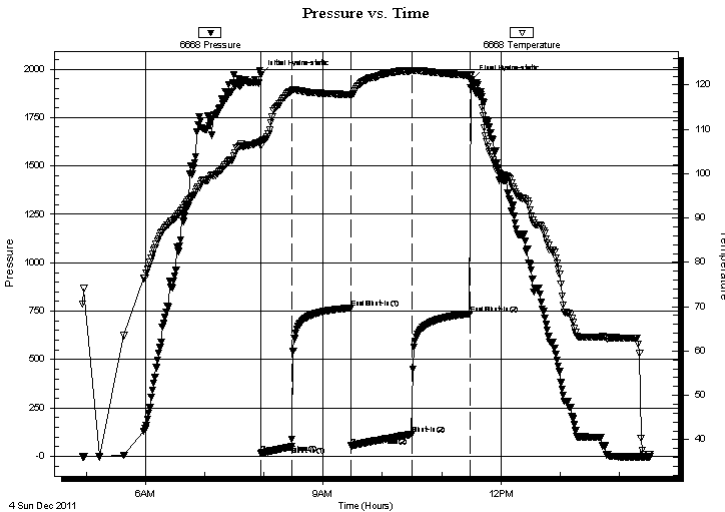
14:31:30

Time On Btm: 2011.12.04 @ 07:56:45

Time Off Btm: 2011.12.04 @ 11:30:30

**TEST COMMENT:** IF: Built to 6" blow  
IS: No return blow  
FF: Built to 5" blow  
FS: No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1969.47	107.23	Initial Hydro-static
1	17.49	106.37	Open To Flow (1)
32	51.33	118.69	Shut-In(1)
91	767.07	117.86	End Shut-In(1)
92	54.62	117.63	Open To Flow (2)
153	115.00	123.27	Shut-In(2)
212	737.47	122.16	End Shut-In(2)
214	1947.15	120.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	sw with oil spots 100% sw	2.61

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Flatirons Resources LLC

**9-16s-30w Lane Co KS**

303 E 17th Ave STE 940  
Denver CO 80203

**Hollamon-McGrew41-9**

Job Ticket: 44906

**DST#: 1**

ATTN: Gary Shaffer

Test Start: 2011.12.04 @ 04:56:15

## 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:

25000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	sw with oil spots 100% sw	2.609

Total Length: 186.00 ft      Total Volume: 2.609 bbl

Num Fluid Samples: 0

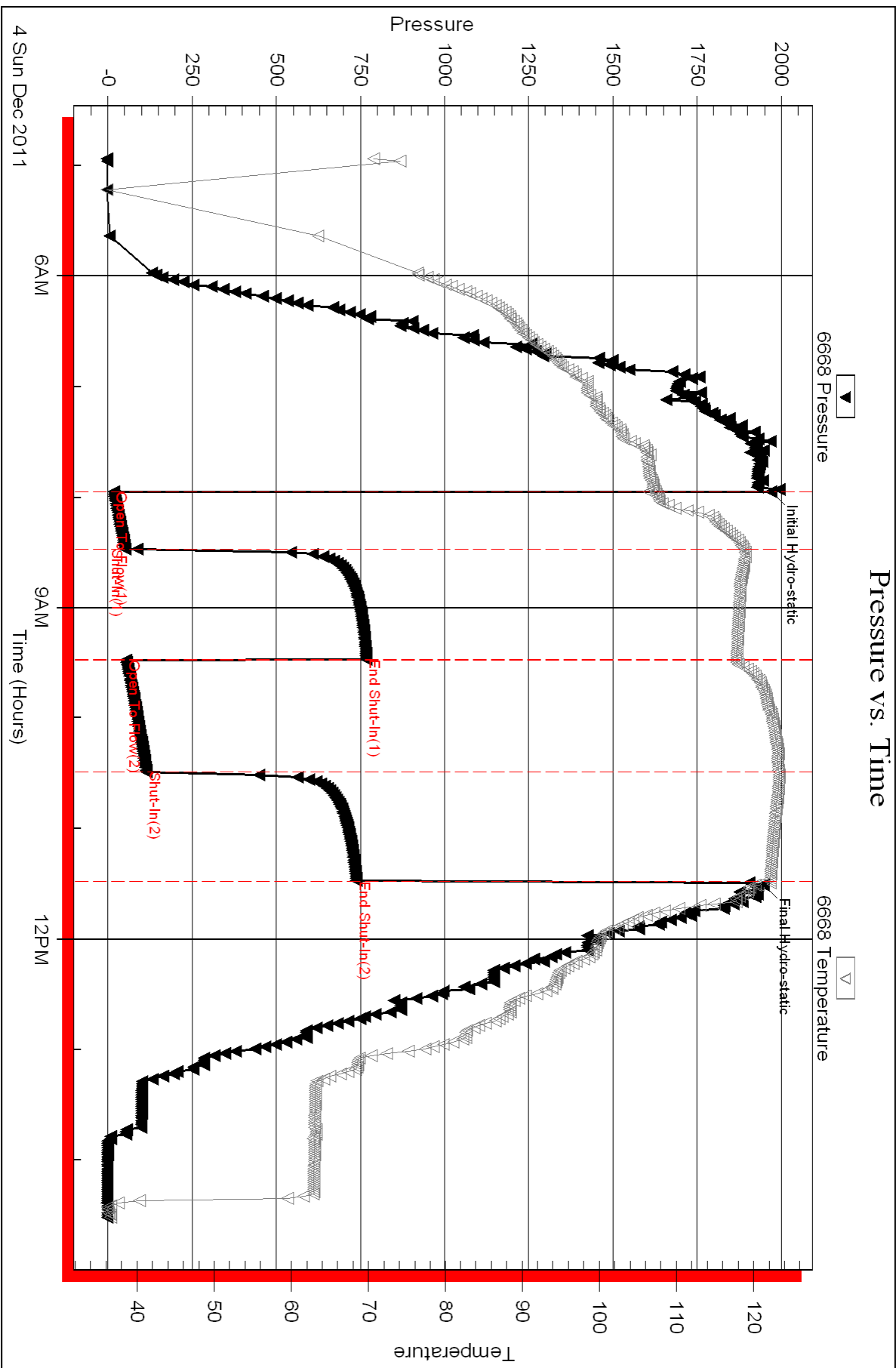
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=.445@45.1\*=25,000 ppm





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Flatiron Resources LLC  
 303 E 17th Ave STE 940  
 Denver CO 80203  
 ATTN: Gary Shaffer

**9-16s-30w Lane Co KS**  
**Hollamon-McGrew41-9**  
 Job Ticket: 45348 **DST#: 2**  
 Test Start: 2011.12.04 @ 23:17:00

## GENERAL INFORMATION:

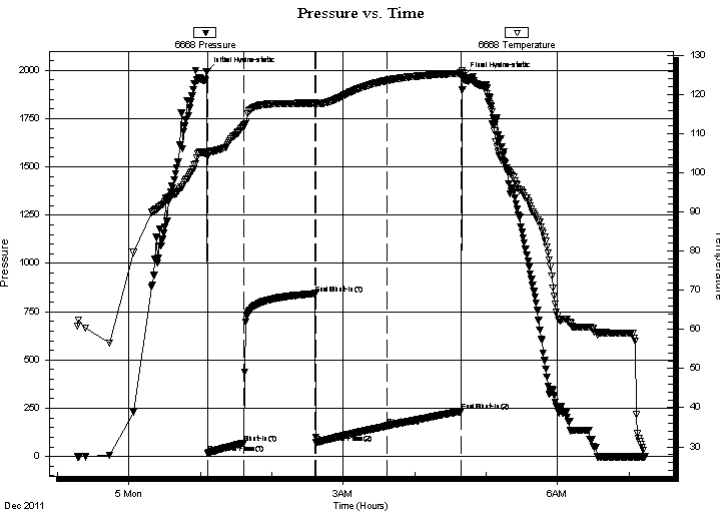
Formation: "L"  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:06:00  
 Time Test Ended: 07:13:00  
 Interval: **4005.00 ft (KB) To 4032.00 ft (KB) (TVD)**  
 Total Depth: 4032.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 48  
 Reference Elevations: 2650.00 ft (KB)  
 2640.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 6668

Outside

Press @ Run Depth: 157.14 psig @ 4006.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.12.04 End Date: 2011.12.05 Last Calib.: 2011.12.05  
 Start Time: 23:17:00 End Time: 07:13:00 Time On Btm: 2011.12.05 @ 01:05:45  
 Time Off Btm: 2011.12.05 @ 04:40:30

TEST COMMENT: IF:BOB in 25 min.  
 IS:No return blow  
 FF:BOB in 19 min.  
 FS:No return blow .....shut in failed on 2nd shut in



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.40	105.40	Initial Hydro-static
1	16.04	104.19	Open To Flow (1)
31	68.90	111.99	Shut-In(1)
91	843.67	117.88	End Shut-In(1)
92	70.88	117.76	Open To Flow (2)
151	157.14	123.61	Shut-In(2)
214	233.88	125.49	End Shut-In(2)
215	1966.45	125.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
77.00	mud 100% m	1.08
379.00	mcsw 20%m 80% sw	5.32

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Flatiron Resources LLC  
303 E 17th Ave STE 940  
Denver CO 80203  
ATTN: Gary Shaffer

**9-16s-30w Lane Co KS**  
**Hollamon-McGrew41-9**  
Job Ticket: 45348      **DST#: 2**  
Test Start: 2011.12.04 @ 23:17:00

## Mud and Cushion Information

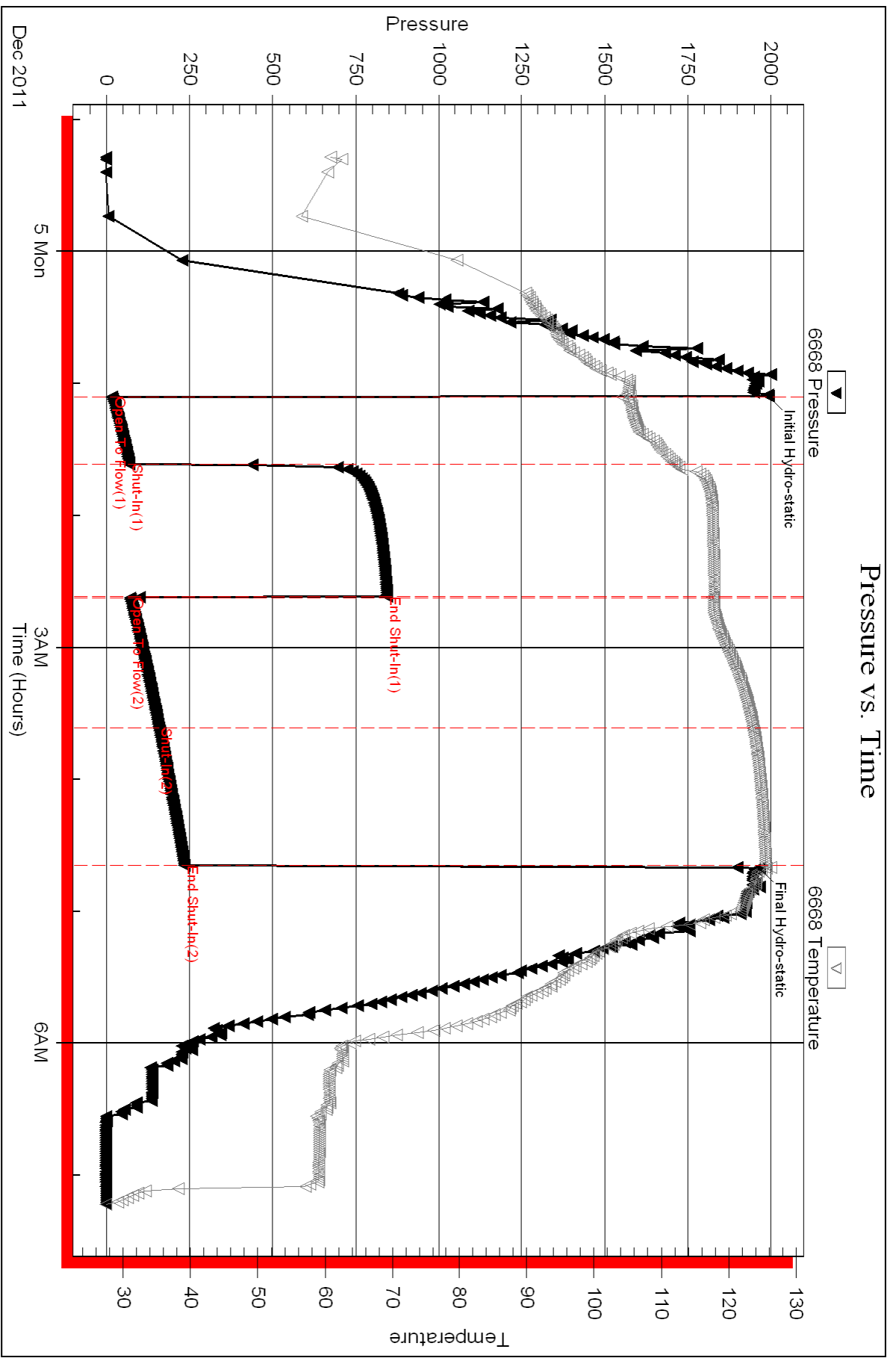
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 38000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.73 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1800.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
77.00	mud 100% m	1.080
379.00	mcsw 20%m 80% sw	5.316

Total Length: 456.00 ft      Total Volume: 6.396 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW= .257@40.1=38,000





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Flatirons Resources LLC

**9-16s-30w Lane Co KS**

303 E 17th Ave STE 940  
Denver CO 80203

**Hollamon-McGrew41-9**

ATTN: Gary Shaffer

Job Ticket: 45349

**DST#: 3**

Test Start: 2011.12.05 @ 18:43:15

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:40:45

Time Test Ended: 02:54:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 48

**Interval: 4069.00 ft (KB) To 4110.00 ft (KB) (TVD)**

Reference Elevations: 2650.00 ft (KB)

Total Depth: 4110.00 ft (KB) (TVD)

2640.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6668 Outside**

Press @ Run Depth: 341.96 psig @ 4105.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.05

End Date:

2011.12.06

Last Calib.:

2011.12.06

Start Time:

18:43:15

End Time:

02:54:45

Time On Btm:

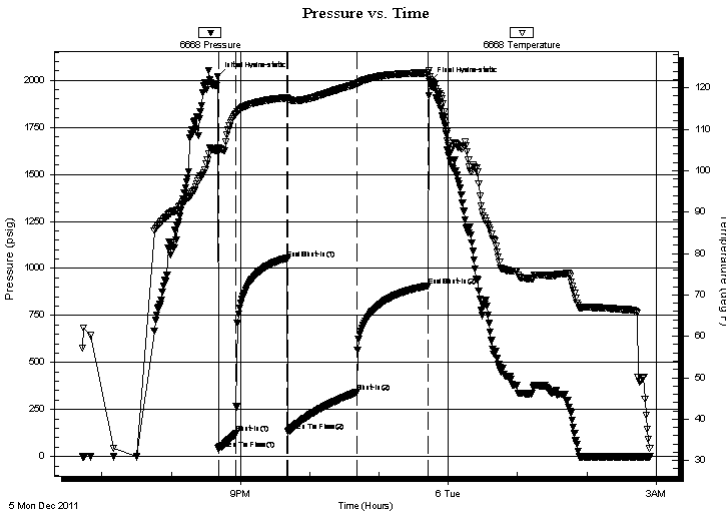
2011.12.05 @ 20:40:30

Time Off Btm:

2011.12.05 @ 23:43:45

**TEST COMMENT:** IF:BOB in 1 min.  
IS:Return blow built to BOB in 12 min.  
FF:BOB instantly  
FS:Return blow built to 6" blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2021.80	105.47	Initial Hydro-static
1	40.72	104.50	Open To Flow (1)
16	121.55	113.57	Shut-In(1)
60	1050.88	117.56	End Shut-In(1)
61	131.49	117.28	Open To Flow (2)
121	341.96	120.96	Shut-In(2)
182	907.73	123.57	End Shut-In(2)
184	1990.92	122.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP=186 Feet	0.00
806.00	gco 5%g 95%o	11.31
124.00	gcmo 2%g 5%m 93%o	1.74

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Flatirons Resources LLC

**9-16s-30w Lane Co KS**

303 E 17th Ave STE 940  
Denver CO 80203

**Hollamon-McGrew41-9**

Job Ticket: 45349

**DST#: 3**

ATTN: Gary Shaffer

Test Start: 2011.12.05 @ 18:43:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP=186 Feet	0.000
806.00	gco 5%g 95%o	11.306
124.00	gcmo 2%g 5%m 93%o	1.739

Total Length: 930.00 ft      Total Volume: 13.045 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

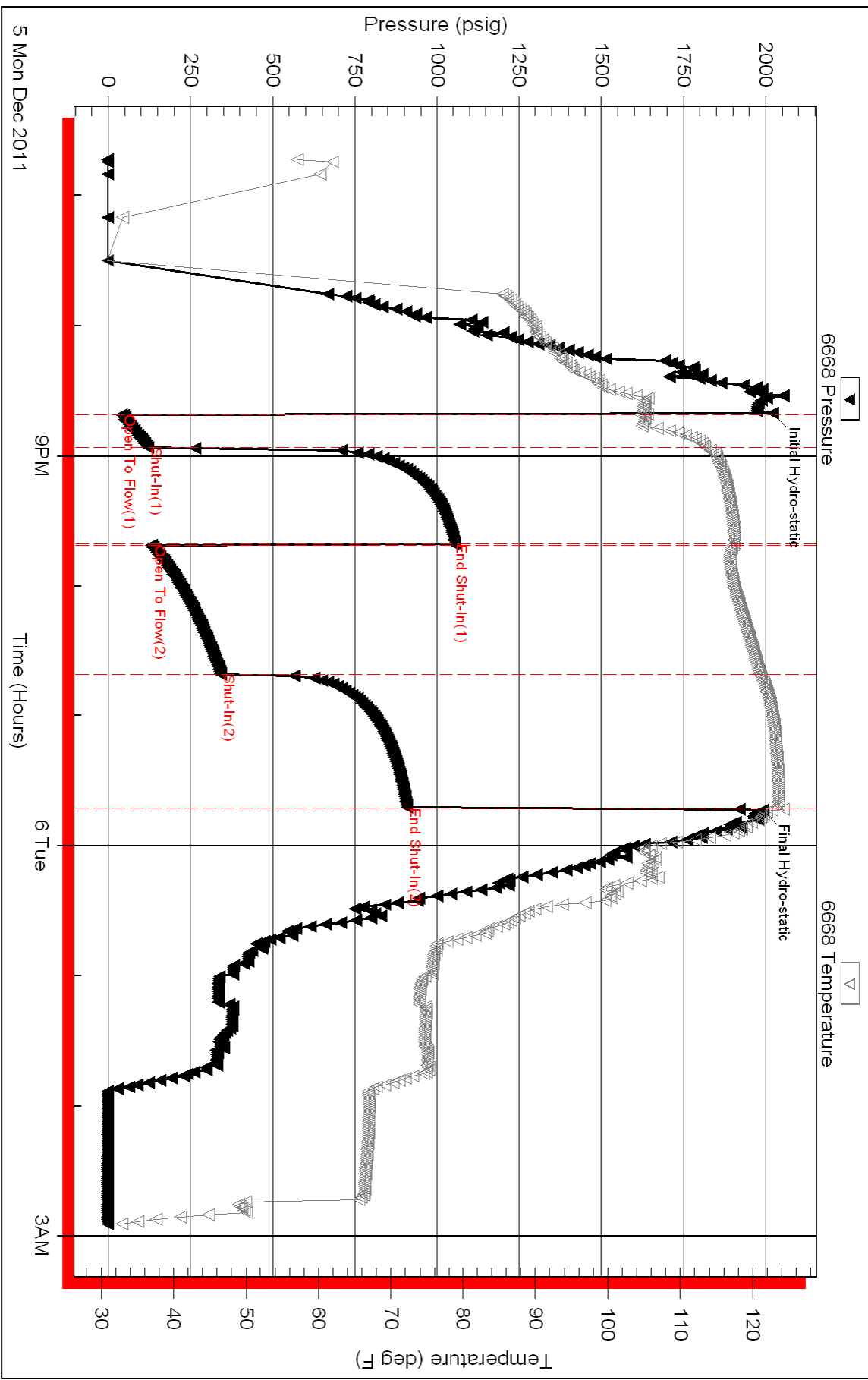
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API=20@37 corrected to 33 @60

# Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Flatirons Resources LLC

303 E 17th Ave STE 940  
Denver CO 80203

ATTN: Gary Shaffer

**9-16s-30w Lane Co KS**

**Hollamon-McGrew41-9**

Job Ticket: 45350

**DST#: 4**

Test Start: 2011.12.06 @ 23:48:15

## GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:11:15

Time Test Ended: 08:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 48

**Interval: 4217.00 ft (KB) To 4254.00 ft (KB) (TVD)**

Reference Elevations: 2650.00 ft (KB)

Total Depth: 4254.00 ft (KB) (TVD)

2640.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6668 Outside**

Press @ Run Depth: 484.33 psig @ 4218.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.06

End Date:

2011.12.07

Last Calib.:

2011.12.07

Start Time:

23:48:15

End Time:

08:31:00

Time On Btm:

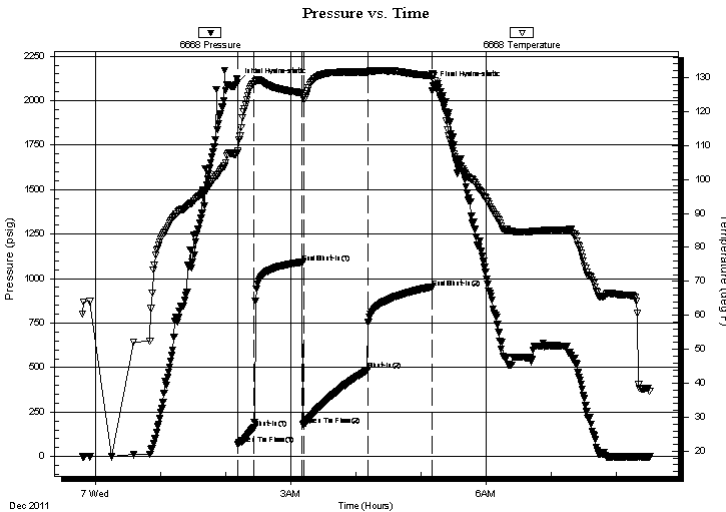
2011.12.07 @ 02:11:00

Time Off Btm:

2011.12.07 @ 05:11:00

**TEST COMMENT:** IF:BOB in 2 min.  
IS:Return blow built to BOB in 2 min  
FF:BOB instantly  
FS:Return blow built to BOB in 1 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2101.32	108.24	Initial Hydro-static
1	67.12	107.83	Open To Flow (1)
15	161.40	128.23	Shut-In(1)
60	1089.52	125.47	End Shut-In(1)
61	178.09	124.12	Open To Flow (2)
120	484.33	131.60	Shut-In(2)
179	949.28	130.43	End Shut-In(2)
180	2086.67	130.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1302.00	gco 6%g 94%o	18.26

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Flatirons Resources LLC

**9-16s-30w Lane Co KS**

303 E 17th Ave STE 940  
Denver CO 80203

**Hollamon-McGrew41-9**

Job Ticket: 45350

**DST#: 4**

ATTN: Gary Shaffer

Test Start: 2011.12.06 @ 23:48:15

## 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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1302.00	gco 6%g 94%o	18.264

Total Length: 1302.00 ft      Total Volume: 18.264 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

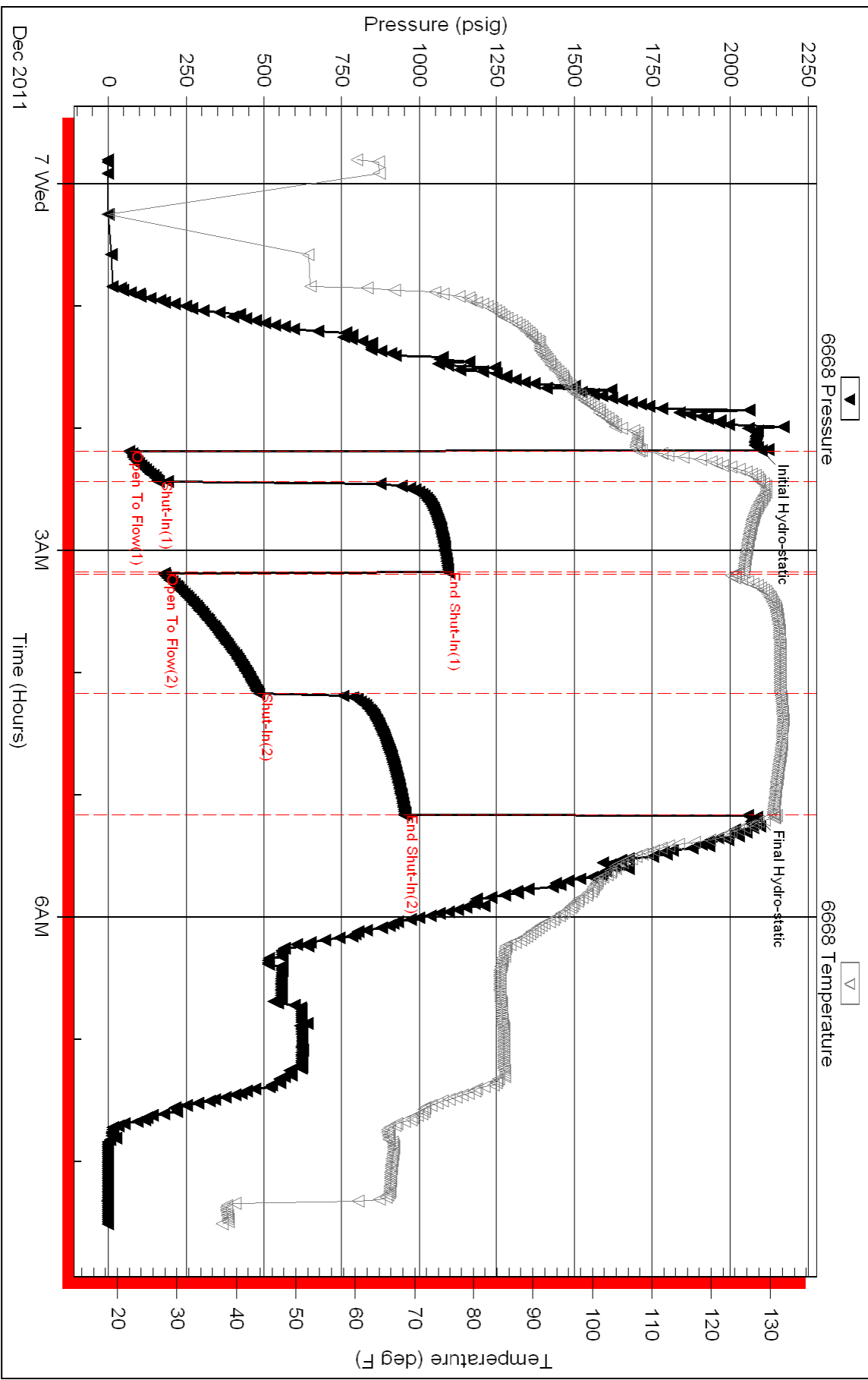
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API=30@ 20\* corrected to 34 @60\*

# Pressure vs. Time





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Flatiron Resources LLC  
 303 E 17th Ave STE 940  
 Denver CO 80203  
 ATTN: Gary Shaffer

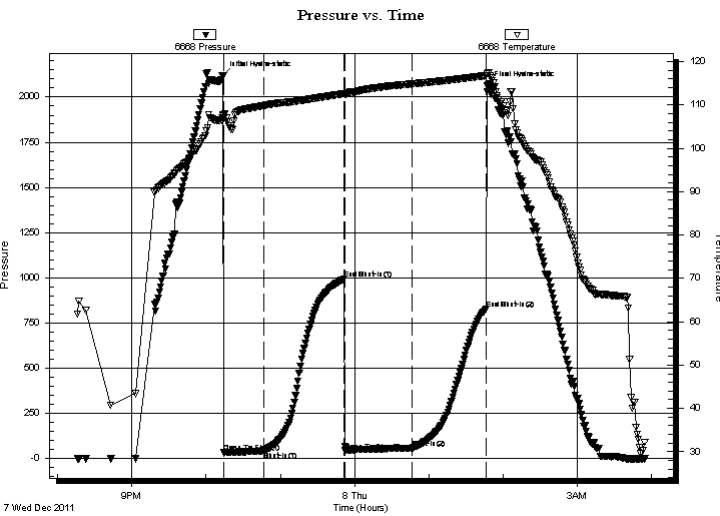
**9-16s-30w Lane Co KS**  
**Hollamon-McGrew41-9**  
 Job Ticket: 44907 **DST#: 5**  
 Test Start: 2011.12.07 @ 20:16:15

## GENERAL INFORMATION:

Formation: **Johnson**  
 Deviated: No Whipstock: (KB)  
 Time Tool Opened: 22:14:00  
 Time Test Ended: 03:54:15  
 Interval: **4261.00 ft (KB) To 4313.00 ft (KB) (TVD)**  
 Total Depth: 4313.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 48  
 Reference Elevations: 2650.00 ft (KB)  
 2640.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6668 Outside**  
 Press @ Run Depth: 57.61 psig @ 4264.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.12.07 End Date: 2011.12.08 Last Calib.: 2011.12.08  
 Start Time: 20:16:15 End Time: 03:54:15 Time On Btm: 2011.12.07 @ 22:13:45  
 Time Off Btm: 2011.12.08 @ 01:47:00

**TEST COMMENT:** IF:BOB in 20 min  
 IS:Return blow built to weak surface blow  
 FF:BOB in 33 min.  
 FS:Return blow built to weak surface blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2119.83	107.63	Initial Hydro-static
1	32.62	106.90	Open To Flow (1)
33	41.86	109.85	Shut-In(1)
98	993.01	112.60	End Shut-In(1)
99	42.68	112.48	Open To Flow (2)
153	57.61	114.85	Shut-In(2)
213	828.56	116.76	End Shut-In(2)
214	2062.49	117.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	124 GIP	0.00
90.00	gcmo 5%g 25%m 70%o	1.26

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Flatiron Resources LLC  
303 E 17th Ave STE 940  
Denver CO 80203  
ATTN: Gary Shaffer

**9-16s-30w Lane Co KS**  
**Hollamon-McGrew41-9**  
Job Ticket: 44907      **DST#: 5**  
Test Start: 2011.12.07 @ 20:16:15

## Mud and Cushion Information

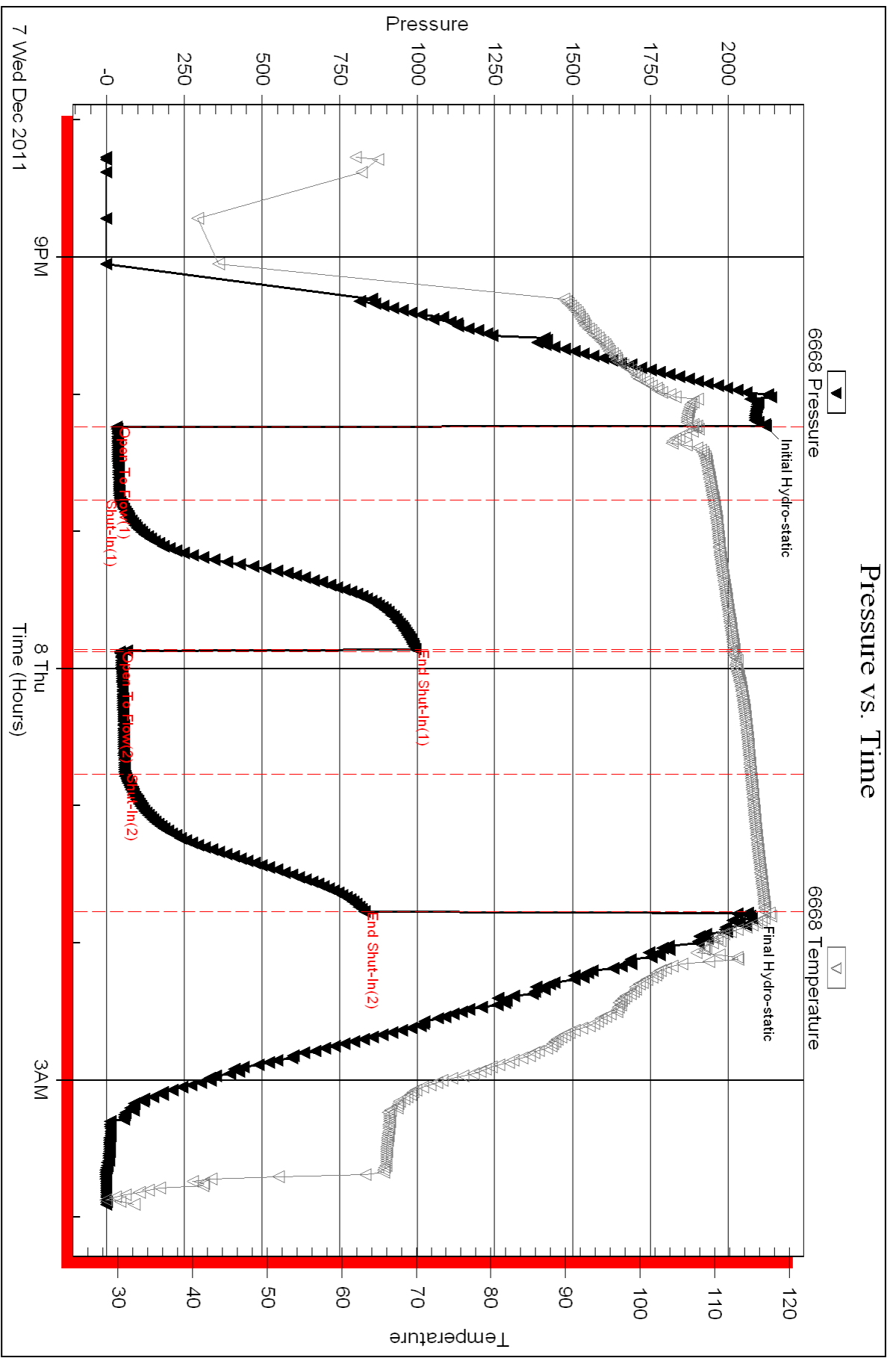
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 4.78 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1700.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	124 GIP	0.000
90.00	gcmo 5%g 25%m 70%o	1.262

Total Length: 90.00 ft      Total Volume: 1.262 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:





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



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

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

March 01, 2012

John Marvin  
Flatirons Resources LLC  
303 E 17TH AVE STE 940  
DENVER, CO 80203

Re: ACO1  
API 15-101-22337-00-00  
Hollamon McGrew 41-9  
NE/4 Sec.09-16S-30W  
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,  
John Marvin