Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1245161

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 35168
Name: IronHorse Resources, LLC
Address 1: 216 16TH STREET
Address 2: SUITE 1200
City: DENVER State: CO Zip: 80202 + _ _ _ _
Contact Person: Mark McNamee
Phone: (303) 573-4449
CONTRACTOR: License # 34908
Name: Skytop Drilling LLC
Wellsite Geologist: Bryan Bynog
Purchaser:

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☑ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

02/20/2015	03/01/2015	03/03/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-039-21218-00-00
Spot Description:
_ - S2 - S2 - SE Sec. 16 Twp. 3 S. R. 26 ☐ East ☑ West
330 Feet from ☐ North / ☑ South Line of Section
1320 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Decatur
Lease Name: Lippelmann Well #: 1
Field Name:
Producing Formation: N/A
Elevation: Ground: 2552 Kelly Bushing: 7
Total Vertical Depth: 3744 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 217 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: 500 ppm Fluid volume: 400 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

☐ **Confidentiality Requested**
Date:
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 03/10/2015

1245161

Operator Name: IronHorse Resources, LLC Lease Name: Lippelmann Well #: 1

Sec. 16 Twp. 3 S. R. 26 ☐ East ☑ West County: Decatur

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Radiation Guard Log

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

Name	Top	Datum
Stone Corral	2120	GL
Heebner	3480	GL
Lansing A	3532	GL
Lansing H	3627	GL

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	23	217	Common	150	2% CaCl, 2% gel

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	-			
	-			

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 *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

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

DISPOSITION OF GAS: ☐ 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:

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

ALLIED OIL & GAS SERVICES, LLC

CEMENTING LOG

STAGE NO.

Date 2.20.15 District Russell Ticket No. 055639

Company Trow Horse Resources Rig Sky Top

Lease Hippelmann Well No. 1

County Decatur Co. State KS

Location Norton Field

Web rd 16 3 S 4/4 W n into

CASING DATA: Conductor ☐ PTA ☐ Squeeze ☐ Misc ☐

Surface ☒ Intermediate ☐ Production ☐ Liner ☐

Size 8 5/8 Type CSG. Weight #23 Collar

8 5/8 CSG. in 12 1/4 Hole @ 217.

Casing Depths: Top 0' Bottom 217'

55 - 15'

Drill Pipe: Size Weight Collars

Open Hole: Size T.D. ft. P.B. to ft.

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. Lin. ft./Bbl. .0637

Open Holes: Bbls/Lin. ft. Lin. ft./Bbl. 136037

Drill Pipe: Bbls/Lin. ft. Lin. ft./Bbl.

Annulus: Bbls/Lin. ft. Lin. ft./Bbl.

Bbls/Lin. ft. Lin. ft./Bbl.

Perforations: From ft. to ft. Amt.

CEMENT DATA:

Spacer Type:

Amt. 150 Sks Yield 1.27 ft³/sk Density PPG

+ 3% cc + 2% gel

LEAD: Pump Time hrs. Type

Excess

Amt. Sks Yield ft³/sk Density PPG

TAIL: Pump Time hrs. Type

Excess

Amt. Sks Yield ft³/sk Density PPG

WATER: Lead gals/sk Tail gals/sk Total Bbls.

Pump Trucks Used #417 - Danny S

Bulk Equip. #985 - Tracy J.

Float Equip: Manufacturer

Shoe: Type Depth

Float: Type Depth

Centralizers: Quantity Plugs Top Btm.

Stage Collars

Special Equip.

Disp. Fluid Type Amt. Bbls. Weight PPG

Mud Type Weight PPG

COMPANY REPRESENTATIVE

CEMENTER Amy Hammerstad

TIME AM/PM	PRESSURES PSI DRILL PIPE CASING	PRESSURES PSI ANNULUS	FLUID PUMPED DATA TOTAL FLUID	FLUID PUMPED DATA Pumped Per Time Period	FLUID PUMPED DATA RATE Bbls Min.	REMARKS
535pm						On location - Safety meeting. Set up Truck.
						Ran 8 5/8 CSG in 12 1/4 Hole @ 217'.
			25 mud flush		6	Broke circulation with Rig. @ 12 1/2 HR.
			25 H2O		3	Mixed 150sk com + 3% cc + 2% gel
						Displaced Cement @ 12.80 H2O Cement to Surface.
			#300 PSI			Shut 8 5/8 in @ #300 PSI.
						Job Complete.
900			8 H2O		3	Washed Truck.

FINAL DISP. PRESS: PSI BUMP PLUG TO PSI BLEEDBACK BBLS.

THANK YOU

MILLER PRINTERS, INC. - Great Bend, KS

Plugging # 99996

ALLIED
OIL & GAS SERVICES, LLC

CEMENTING LOG

STAGE NO.

Date 3.3.15 District Russell Ticket No. 05542

Company IRON Horse Resources Rig Skytop

Lease Lindemann Well No. 1

County Decatur State KS

Location Norton Field

15 W 3S ½ W N into

CASING DATA: Conductor ☐ PTA ☑ Squeeze ☐ Misc ☐

Surface ☐ Intermediate ☐ Production ☐ Liner ☐

Size 4½ Type Drill pipe Weight ____ Collar ____

4½ Drill pipe in 7⅞ Hole in 2150'

Casing Depths: Top 0' Bottom 2150'

P1= 50sk @ 2150 P2= 100sk @ 1375

P3= 50 sk @ 275' P4= 10sk @ 40'

P5= 30sk RAT 1x 8⅝ Wooden Plug

Drill Pipe: Size ____ Weight ____ Collars ____

Open Hole: Size ____ T.D. ____ ft. P.B. to ____ ft.

CAPACITY FACTORS:

Casing:	Bbls/Lin. ft. ____	Lin. ft./Bbl. ____
Open Holes:	Bbls/Lin. ft. ____	Lin. ft./Bbl. .05482
Drill Pipe:	Bbls/Lin. ft. ____	Lin. ft./Bbl. .01422
Annulus:	Bbls/Lin. ft. ____	Lin. ft./Bbl. ____
	Bbls/Lin. ft. ____	Lin. ft./Bbl. ____

Perforations: From ____ ft. to ____ ft. Amt. ____

CEMENT DATA:

Spacer Type: ____

Amt. 240 Sks Yield 1.42 ft³/sk Density ____ PPG

60/40 + 4% gel + #¼ cello

LEAD: Pump Time ____ hrs. Type ____

Excess ____

Amt. ____ Sks Yield ____ ft³/sk Density ____ PPG

TAIL: Pump Time ____ hrs. Type ____

Excess ____

Amt. ____ Sks Yield ____ ft³/sk Density ____ PPG

WATER: Lead ____ gals/sk Tail ____ gals/sk Total ____ Bbls.

Pump Trucks Used #409 - Tracy J.

Bulk Equip. #473 - Ben G.

Float Equip: Manufacturer ____

Shoe: Type ____ Depth ____

Float: Type ____ Depth ____

Centralizers: Quantity ____ Plugs Top ____ Btm. ____

Stage Collars ____

Special Equip. ____

Disp. Fluid Type ____ Amt. ____ Bbls. Weight ____ PPG

Mud Type ____ Weight ____ PPG

COMPANY REPRESENTATIVE ____

CEMENTER Joey Blanchfield

TIME AM/PM	PRESSURES PSI: DRILL PIPE CASING	PRESSURES PSI: ANNULUS	FLUID PUMPED DATA: TOTAL FLUID	FLUID PUMPED DATA: Pumped Per Time Period	FLUID PUMPED DATA: RATE Bbls Min.	REMARKS
	Plugging # 99996					
530pm						On location - Safety meeting.
						Set up Truck.
						Ran 4½ Drill pipe in @ 2150' in 7⅞ Hole.
			8.20		3	P1= 50sk @ 2150. mixed 50sk (Hulls) 60/40 - Displaced cement @ 1.45 Bbl/min
			16.40		3	P2= 100sk @ 1375. mixed 100sk 60/40 Displaced cement @ 8½ Bbl/min.
			8.20		3	P3= 50sk @ 275' - mixed 50sk 60/40 Displaced cement @ 1½ Bbl/min.
			2.50		3	P4= 10sk @ 40'. 1x 8⅝ wooden plug mixed 10sk 60/40 cement to surface.
			4.60		3	P5= 30sk RATHOLE - mixed 30sk 60/40 cement in SUMP.
						Job Complete
						Washed Truck

FINAL DISP. PRESS: ____ PSI BUMP PLUG TO ____ PSI BLEEDBACK ____ BBLS. THANK YOU

MILLER PRINTERS, INC. - Great Bend, KS

DRILL STEM TEST REPORT

Ironhorse Resources

216th St. STE 1200
Denver, CO 80202

ATTN: Bryan Bynog

16/3s/26w Decatur KS

Lipplemann #1

Job Ticket: 62164 **DST#: 5**

Test Start: 2015.03.02 @ 15:28:00

GENERAL INFORMATION:

Formation: **LKC "H"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:01:15
Time Test Ended: 02:12:15

Test Type: Conventional Straddle (Reset)
Tester: James Winder
Unit No: 83

Interval: 3614.00 ft (KB) To 3644.00 ft (KB) (TVD)
Total Depth: 3744.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

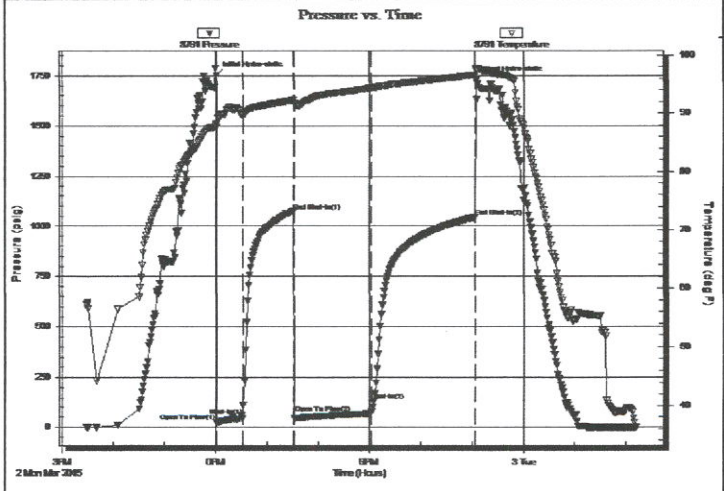
Reference Elevations: 2562.00 ft (KB)
2555.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8791 **Inside**

Press@RunDepth: 68.06 psig @ 3615.00 ft (KB)
Start Date: 2015.03.02 End Date: 2015.03.03
Start Time: 15:28:00 End Time: 02:12:15

Capacity: 8000.00 psig
Last Calib.: 2015.03.03
Time On Btm: 2015.03.02 @ 18:01:00
Time Off Btm: 2015.03.02 @ 23:05:15

TEST COMMENT: 30 - IF: 1 1/4" Blow at open, surging blow built to 4" (Diesel in bucket)
60 - ISI: Weak on/off surface blow back
90 - FF: Blow built to 4"
120 - FSI: Some w eak on/off surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1755.36	88.32	Initial Hydro-static
1	20.53	87.66	Open To Flow (1)
31	43.95	89.74	Shut-In(1)
90	1074.07	92.24	End Shut-In(1)
91	45.37	91.83	Open To Flow (2)
181	68.06	94.34	Shut-In(2)
303	1044.98	96.64	End Shut-In(2)
305	1731.88	97.62	Final Hydro-static

Recovery

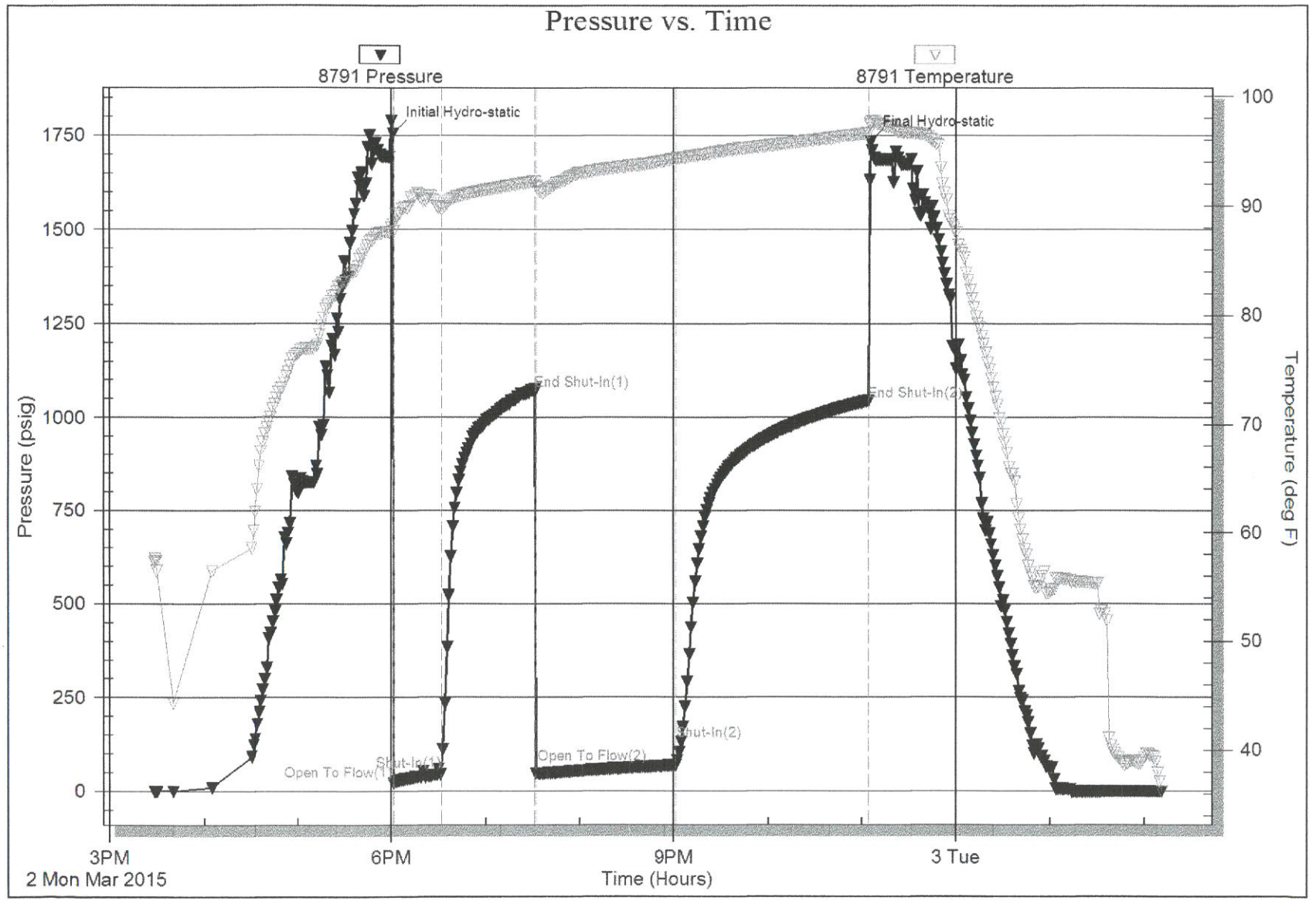
Length (ft)	Description	Volume (bbl)
57.00	MW w/trace oil 53%w , 47%m	0.28
56.00	SO/WCM 71%m, 27%w , 2%o	0.28
7.00	OCM 89%m, 11%o	0.03

* Recovery from multiple tests

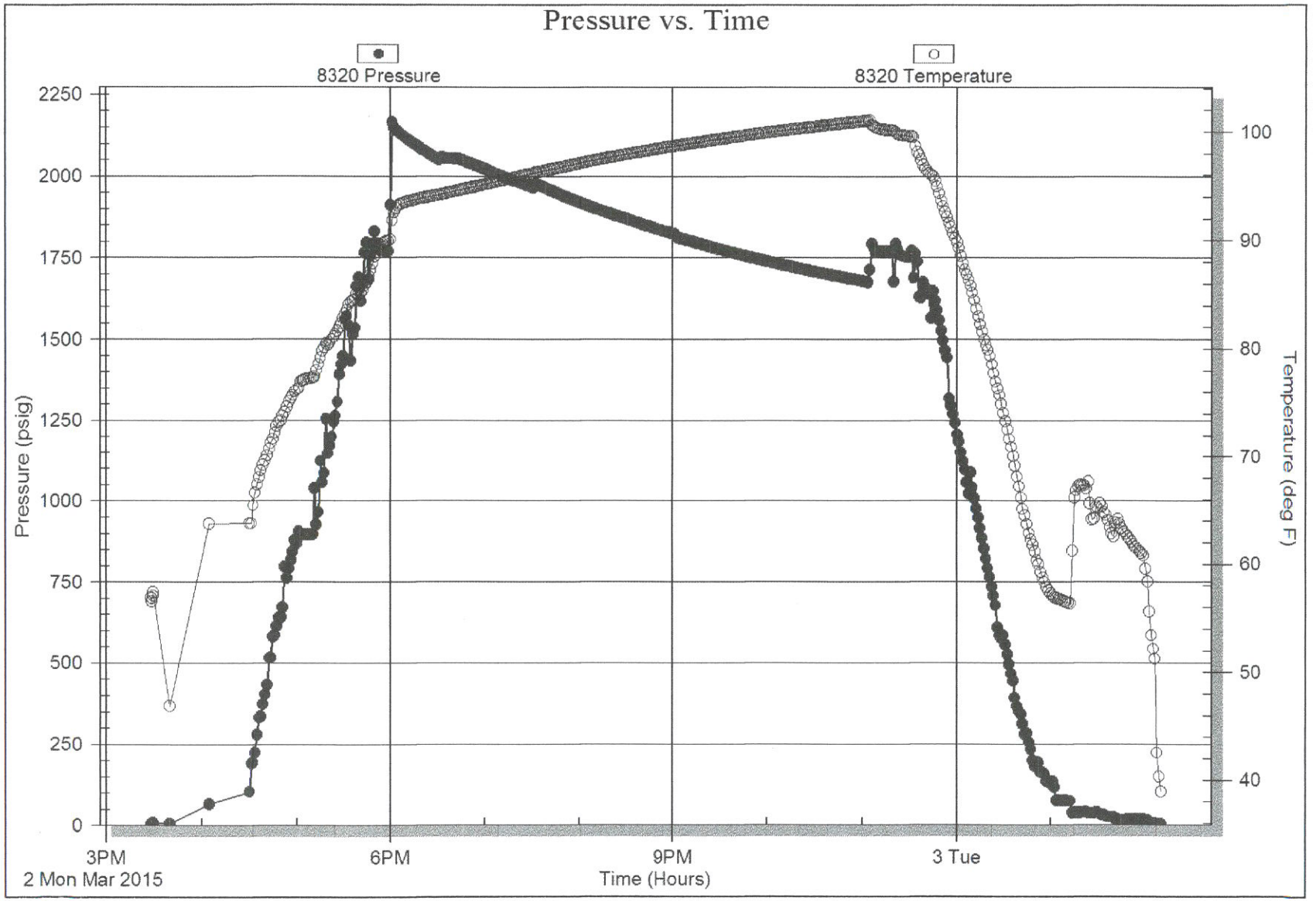
Gas Rates

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

Serial #: 8791 **Inside** Ironhorse Resources Lipplemann #1 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 62164 Printed: 2015.03.03 @ 02:33:53


Pressure vs. Time
8320 Pressure
8320 Temperature
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
100
90
80
70
60
50
40
3PM
2 Mon Mar 2015
6PM
9PM
3 Tue
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Ironhorse Resources

216th St. STE 1200
Denver, CO 80202

ATTN: Bryan Bynog

16/3s/26w Decatur KS

Lipplemann #1

Job Ticket: 62163 **DST#: 4**

Test Start: 2015.03.01 @ 23:33:00

GENERAL INFORMATION:

Formation: **LKC "H"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended: 04:18:45

Test Type: Conventional Straddle (Reset)
Tester: James Winder
Unit No: 83

Interval: 3614.00 ft (KB) To 3644.00 ft (KB) (TVD)
Total Depth: 3744.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

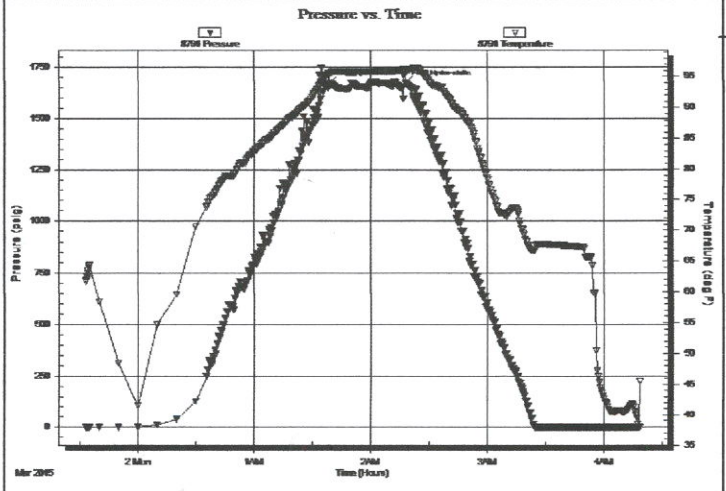
Reference Elevations: 2562.00 ft (KB)
2555.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8791 **Inside**

Press@RunDepth: psig @ 3615.00 ft (KB)
Start Date: 2015.03.01 End Date: 2015.03.02
Start Time: 23:33:00 End Time: 04:18:45

Capacity: 8000.00 psig
Last Calib.: 2015.03.02
Time On Btm: 2015.03.02 @ 01:38:45
Time Off Btm: 2015.03.02 @ 02:18:00

TEST COMMENT: Mis-run
Picked up head joint - No mud in hole, couldn't get it to fill
pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1670.39	95.46	Initial Hydro-static
40	1671.00	96.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

* Recovery from multiple tests

Gas Rates

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

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 62103

Well Name & No. Lipplemann #1 Test No. 4 Date 3-1-15

Company Ironhorse Resources Elevation 2562 KB 2555 GL

Address 216 16th St. STE 1200 Denver CO 80202

Co. Rep / Geo. Bryan Byrnes Rig Skytop

Location: Sec. 16 Twp. 3s Rge. 26w Co. Decatur State KS

Interval Tested 3614 - 3644 Zone Tested LKC "H"

Anchor Length 30 Anchor 100 Tail Drill Pipe Run Mud Wt. 9.3

Top Packer Depth 3609 - 3614 Drill Collars Run 143 Vis 66

Bottom Packer Depth 3644 Wt. Pipe Run - WL 8.0

Total Depth 3744 Chlorides 500 ppm System LCM 2

Blow Description Mis-Run

Picked up Head joint - No mud in hole - couldn't get it to fill

pulled tool

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total BHT Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic

(B) First Initial Flow

(C) First Final Flow

(D) Initial Shut-In

(E) Second Initial Flow

(F) Second Final Flow

(G) Final Shut-In

(H) Final Hydrostatic

Initial Open

Initial Shut-In

Final Flow

Final Shut-In

- ☑ Test
- ☑ Jars
- ☑ Safety Joint
- ☐ Circ Sub
- ☐ Hourly Standby
- ☐ Mileage 40 RT
- ☐ Sampler
- ☑ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total

T-On Location 22:35 3/1

T-Started 23:33

T-Open —

T-Pulled ~ 2:18

T-Out 4:15 3/2

Comments

- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies

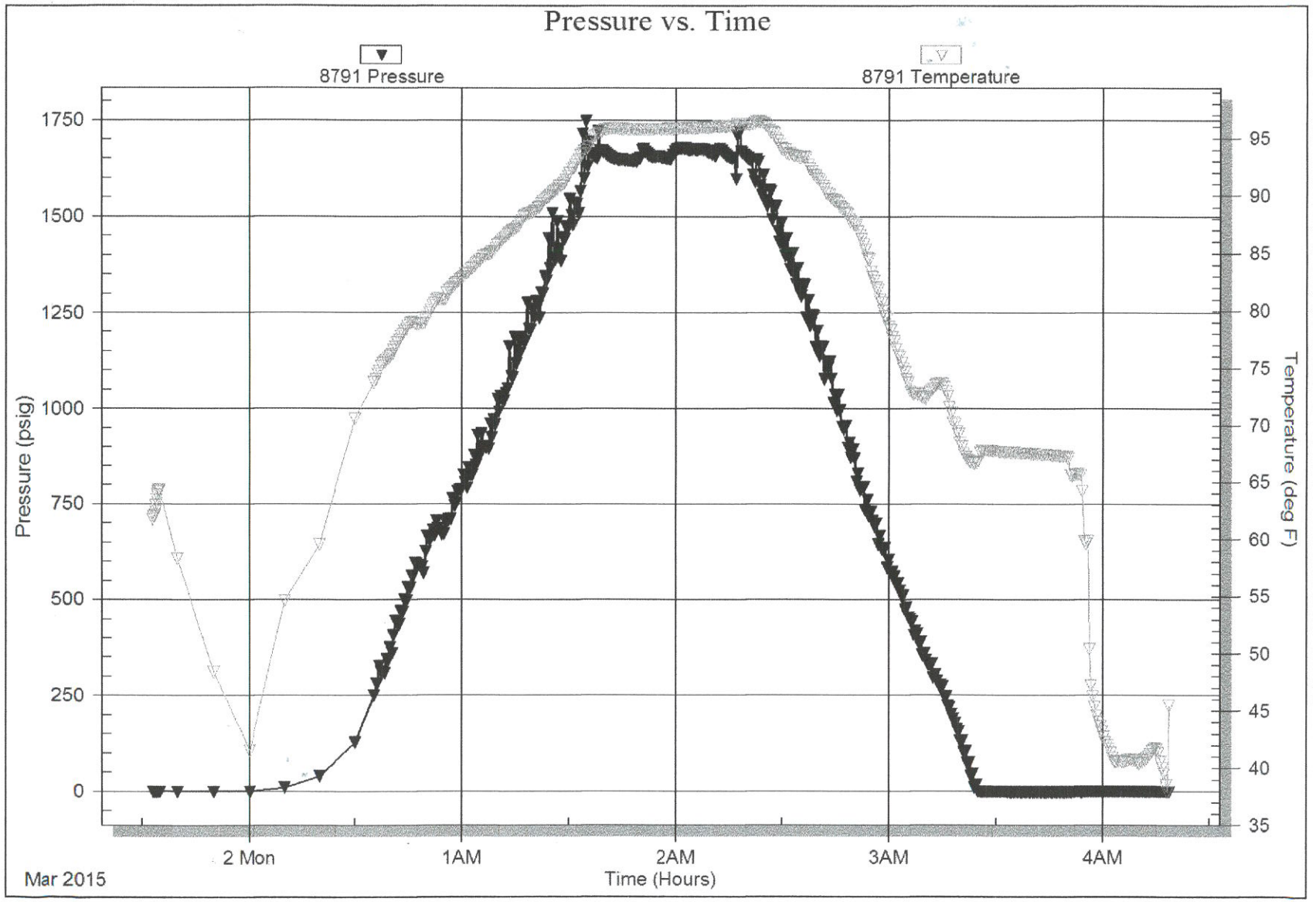
Sub Total

Total

MP/DST Disc't

Approved By Our Representative James Winder

Serial #: 8791 **Inside** Ironhorse Resources Lipplemann #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 62163 Printed: 2015.03.02 @ 04:32:39

DRILL STEM TEST REPORT

Ironhorse Resources

216th St. STE 1200
Denver, CO 80202

ATTN: Bryan Bynog

16/3s/26w Decatur KS

Lipplemann #1

Job Ticket: 62162 **DST#: 3**

Test Start: 2015.02.28 @ 20:20:00

GENERAL INFORMATION:

Formation: **LKC "H"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:38:15
Time Test Ended: 06:06:45

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 83

Interval: 3612.00 ft (KB) To 3655.00 ft (KB) (TVD)
Total Depth: 3655.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

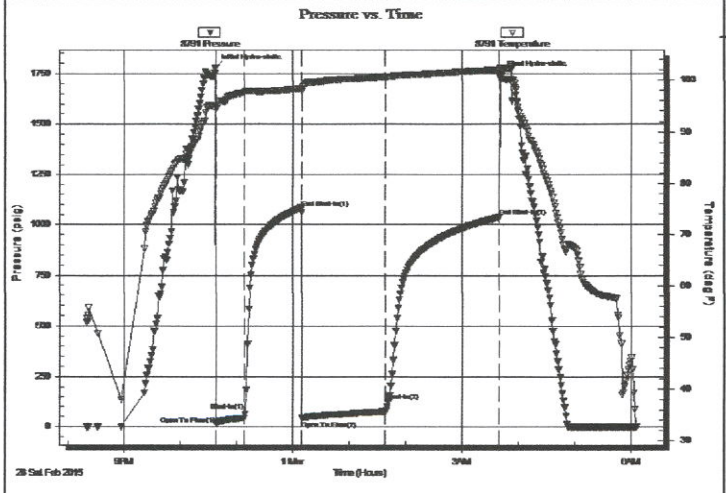
Reference Elevations: 2562.00 ft (KB)
2555.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8791 **Inside**

Press@RunDepth: 76.67 psig @ 3613.00 ft (KB)
Start Date: 2015.02.28 End Date: 2015.03.01
Start Time: 20:20:00 End Time: 06:06:45

Capacity: 8000.00 psig
Last Calib.: 2015.03.01
Time On Btm: 2015.02.28 @ 22:38:00
Time Off Btm: 2015.03.01 @ 03:41:45

TEST COMMENT: 30 - IF: 1" Blow at open, built to 4 1/2" (Diesel in bucket)
60 - ISI: No blow back
90 - FF: Blow built to 3 3/4"
120 - FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1778.93	95.00	Initial Hydro-static
1	17.80	94.59	Open To Flow (1)
31	43.11	97.82	Shut-In(1)
92	1082.81	98.38	End Shut-In(1)
92	46.09	97.88	Open To Flow (2)
181	76.67	100.66	Shut-In(2)
302	1037.54	102.06	End Shut-In(2)
304	1747.34	102.38	Final Hydro-static

Recovery

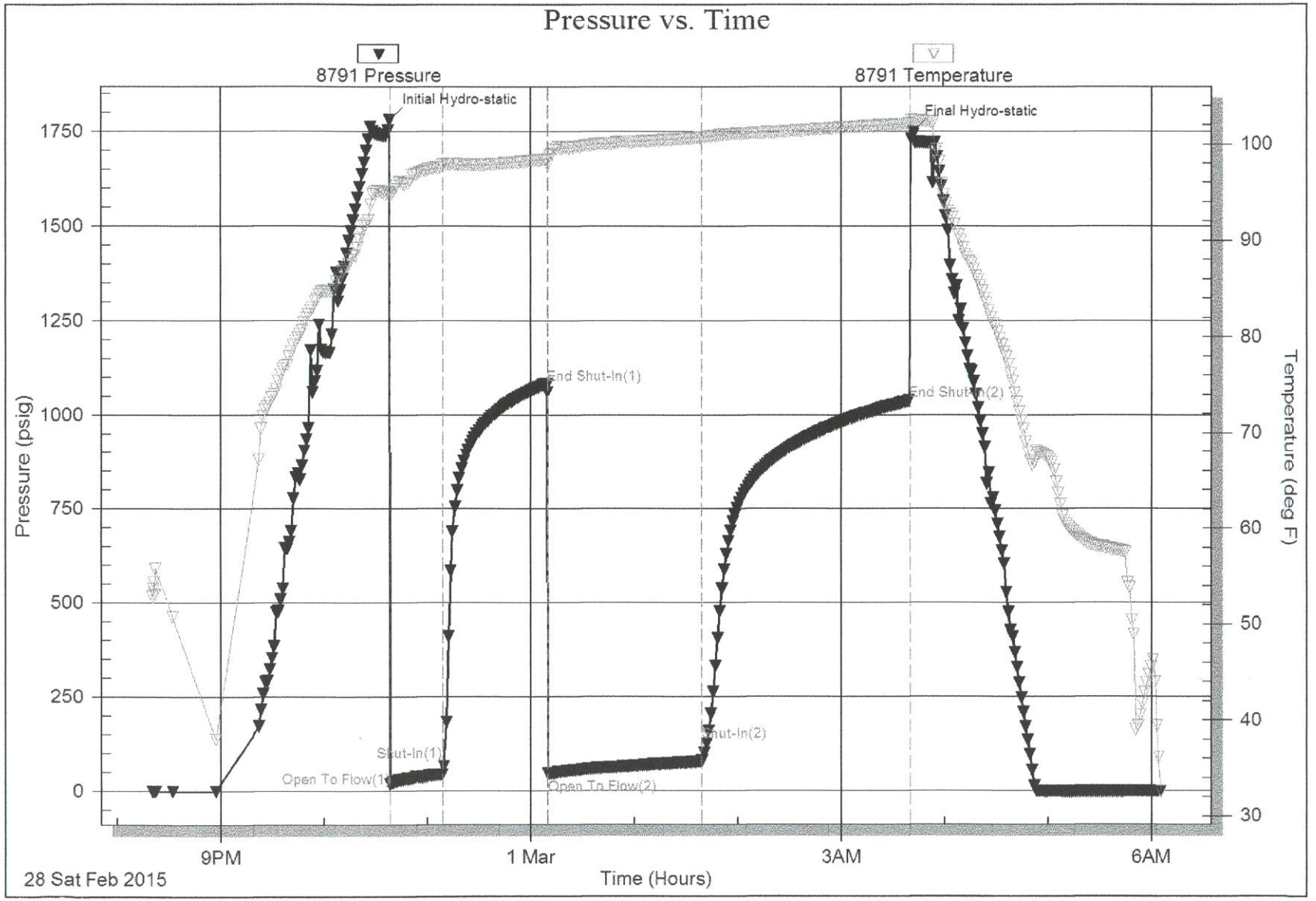
Length (ft)	Description	Volume (bbl)
56.00	MCW w/trace oil 62%w, 38%m	0.28
58.00	SOW/Mud 98%m, 1%o, 1%w	0.29
20.00	SO/WCM 59%m, 38%w, 3%o	0.10
0.00	A few inches of Free Oil on top	0.00

* Recovery from multiple tests

Gas Rates

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

Serial #: 8791 **Inside** Ironhorse Resources Lipplemann #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 62162 Printed: 2015.03.01 @ 06:41:07

DRILL STEM TEST REPORT

Ironhorse Resources

216th St. STE 1200
Denver, CO 80202

ATTN: Bryan Bynog

16/3s/26w Decatur KS

Lipplemann #1

Job Ticket: 62161 **DST#: 2**

Test Start: 2015.02.27 @ 16:20:00

GENERAL INFORMATION:

Formation: **LKC "C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:49:45
Time Test Ended: 02:10:15

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 83

Interval: 3536.00 ft (KB) To 3560.00 ft (KB) (TVD)
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

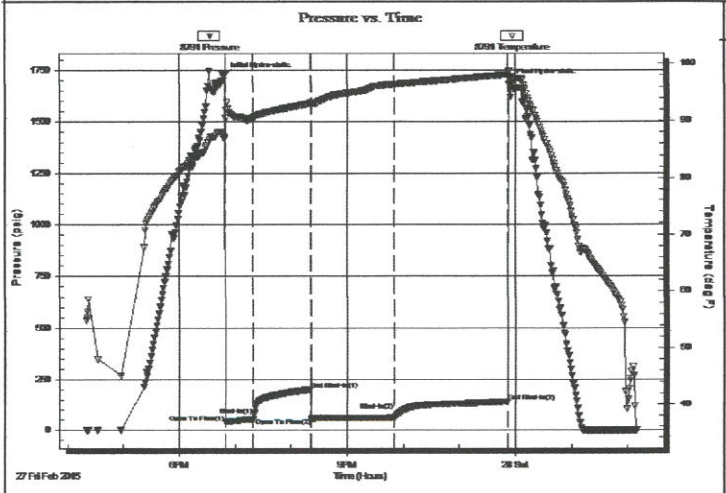
Reference Elevations: 2562.00 ft (KB)
2557.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8791 **Inside**

Press@RunDepth: 61.04 psig @ 3537.00 ft (KB)
Start Date: 2015.02.27 End Date: 2015.02.28
Start Time: 16:20:00 End Time: 02:10:15

Capacity: 8000.00 psig
Last Calib.: 2015.02.28
Time On Btm: 2015.02.27 @ 18:48:45
Time Off Btm: 2015.02.27 @ 23:54:45

TEST COMMENT: 30 - IF: 3"+ Blow at open, built to 5 1/4" (Diesel in bucket)
60 - IS: No blow back
90 - FF: Blow built to 1 3/4"
120 - FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.18	86.91	Initial Hydro-static
1	42.19	92.03	Open To Flow (1)
31	51.47	90.49	Shut-In(1)
92	200.59	93.06	End Shut-In(1)
93	55.12	93.00	Open To Flow (2)
182	61.04	96.38	Shut-In(2)
304	139.70	98.13	End Shut-In(2)
306	1690.47	97.54	Final Hydro-static

Recovery

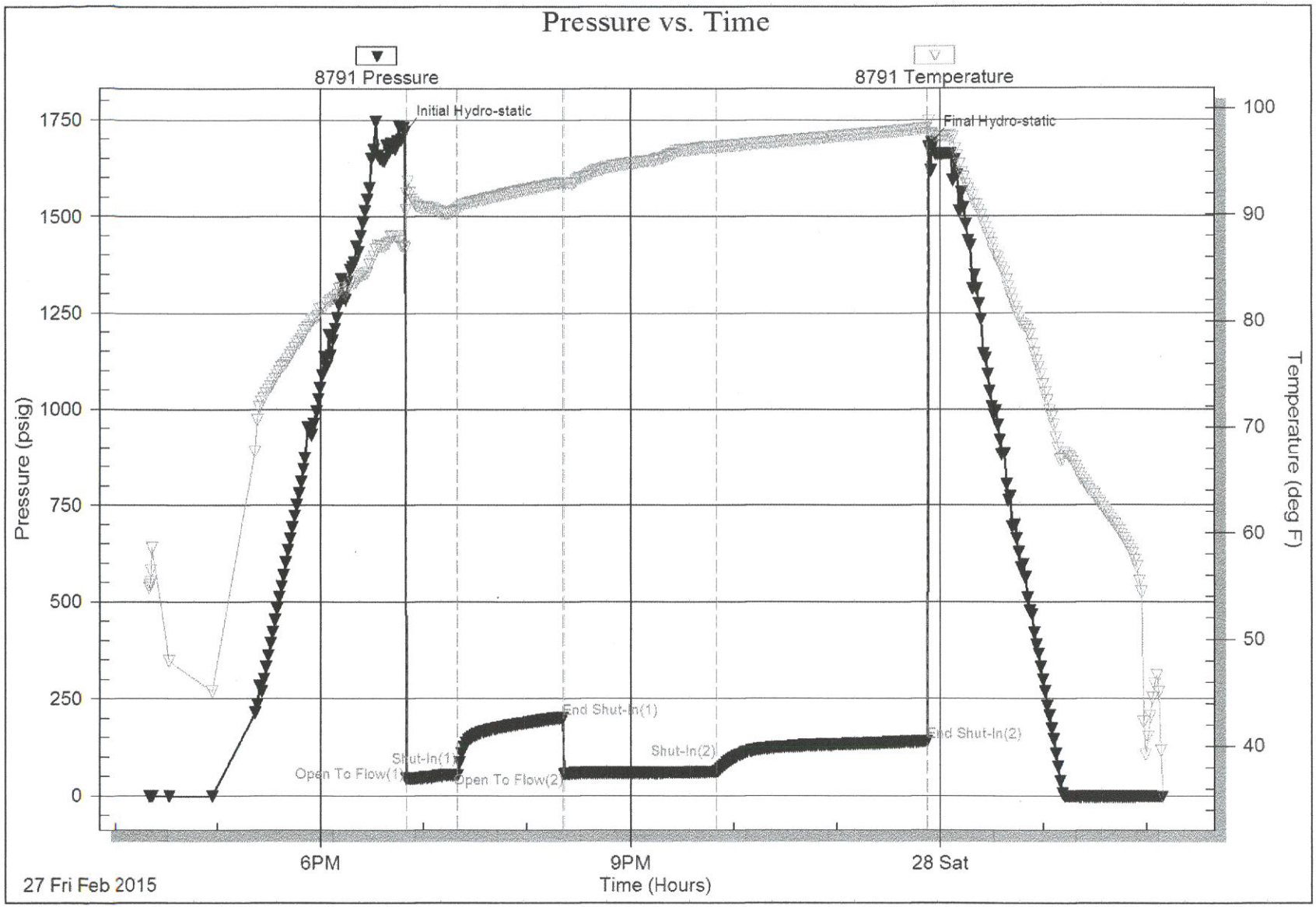
Length (ft)	Description	Volume (bbl)
56.00	SOCM 95%m, 3%o, 2%g	0.28
54.00	OCM 80%m, 20%o	0.27

* Recovery from multiple tests

Gas Rates

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

Serial #: 8791 **Inside** Ironhorse Resources Lipplemann #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 62161 Printed: 2015.02.28 @ 02:24:49

DRILL STEM TEST REPORT

Ironhorse Resources

216th St. STE 1200
Denver, CO 80202

ATTN: Bryan Bynog

16/3s/26w Decatur KS

Lippleman #1

Job Ticket: 62160 **DST#: 1**

Test Start: 2015.02.26 @ 20:44:00

GENERAL INFORMATION:

Formation: **LKC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:30:30
Time Test Ended: 07:13:00

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 83

Interval: 3470.00 ft (KB) To 3540.00 ft (KB) (TVD)
Total Depth: 3540.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

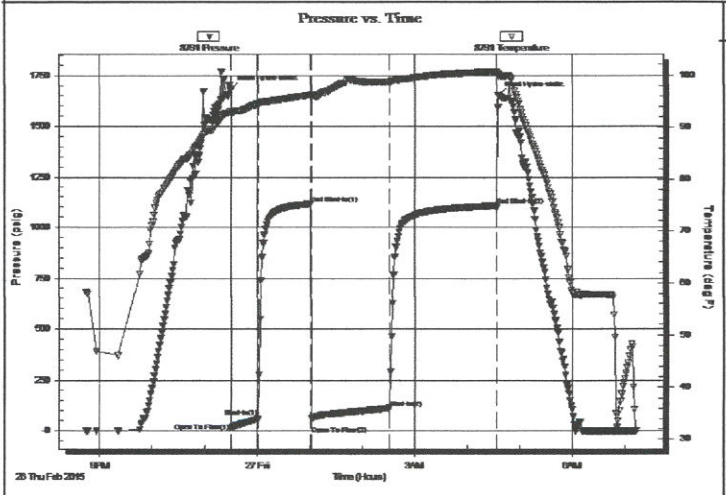
Reference Elevations: 2562.00 ft (KB)
2557.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8791 **Inside**

Press@RunDepth: 112.00 psig @ 3471.00 ft (KB)
Start Date: 2015.02.26 End Date: 2015.02.27
Start Time: 20:44:00 End Time: 07:13:00

Capacity: 8000.00 psig
Last Calib.: 2015.02.27
Time On Btm: 2015.02.26 @ 23:30:15
Time Off Btm: 2015.02.27 @ 04:35:00

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 6 1/4" (Diesel in bucket)
60 - ISI: No blow back
90 - FF: Blow built to BOB (11") at 85 min.
120 - FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.00	93.15	Initial Hydro-static
1	14.69	92.70	Open To Flow (1)
31	57.05	94.52	Shut-In(1)
92	1114.07	96.24	End Shut-In(1)
93	61.32	95.81	Open To Flow (2)
181	112.00	98.70	Shut-In(2)
303	1105.18	100.68	End Shut-In(2)
305	1653.38	100.15	Final Hydro-static

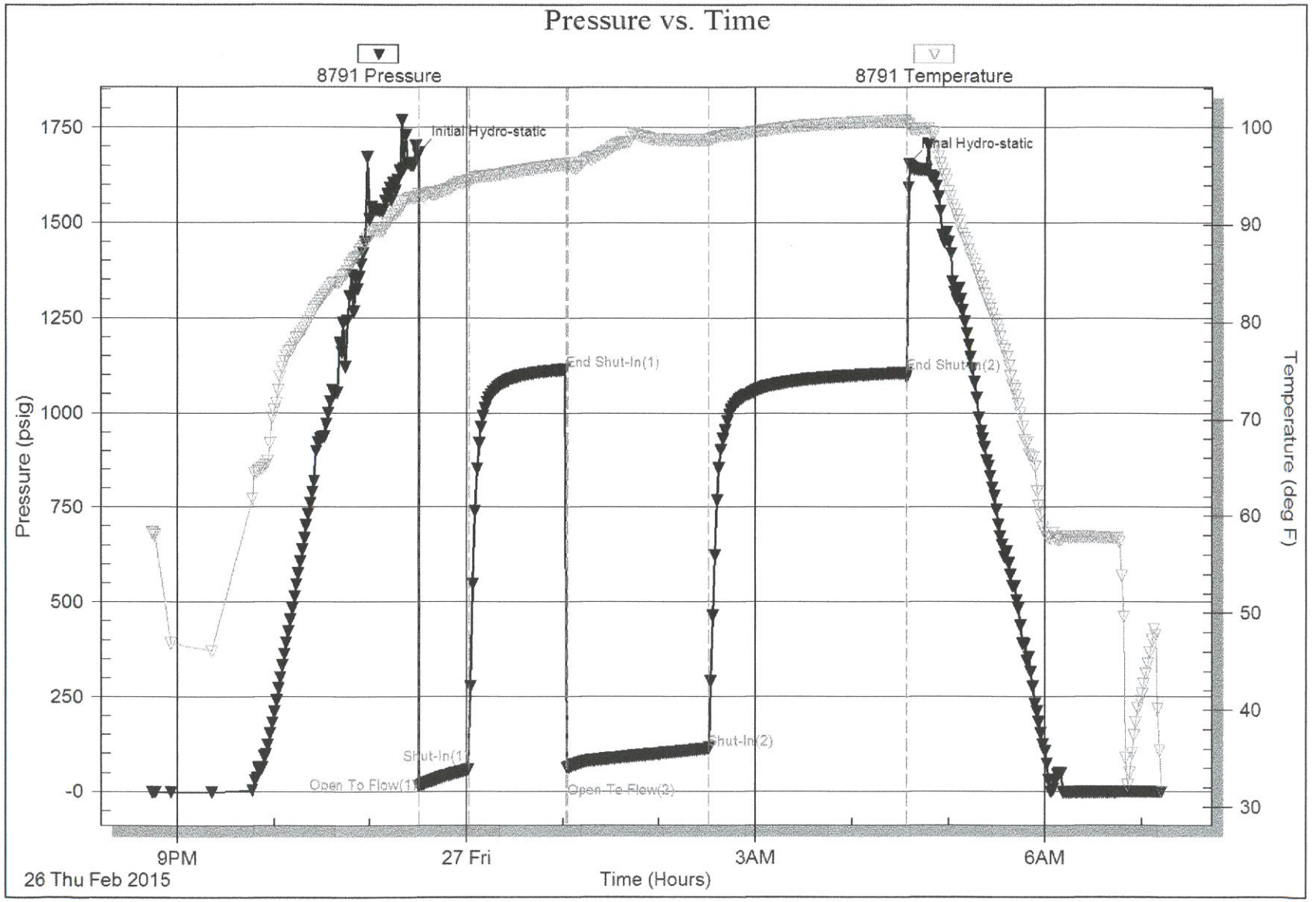
Recovery

Length (ft)	Description	Volume (bbl)
56.00	MCW 64%w , 36%m	0.28
154.00	WCM 73%m, 27%w	1.38

Gas Rates

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

Serial #: 8791 **Inside** Ironhorse Resources Lippleman #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 62160 Printed: 2015.02.27 @ 07:44:51