

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1259381  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

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

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

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

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well  Re-Entry  Workover
- Oil  WSW  SWD  SIOW
- Gas  D&A  ENHR  SIGW
- OG  GSW  Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

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

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening  Re-perf.  Conv. to ENHR  Conv. to SWD
- Plug Back  Conv. to GSW  Conv. to Producer
- Commingled Permit #: \_\_\_\_\_
- Dual Completion Permit #: \_\_\_\_\_
- SWD Permit #: \_\_\_\_\_
- ENHR Permit #: \_\_\_\_\_
- GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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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

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

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

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

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

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

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

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

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

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

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

1259381

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

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

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

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

Drill Stem Tests Taken <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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____					
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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax ID # 20-2886107

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

Home Office P.O. Box 32 Russell, KS 67665 No. 1435

Date: 7-17-15	Sec: 34	Twp: 16	Range: 12	County: Barton	State: KS	On Location: [ ]	Finish: 11:15 PM
Location: Bever, 1E, 1S, 34E, S02							

Lease: Feltes Well No. 1 Owner: [ ]

Contractor: Royal  
Type Job: Surface  
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.

Hole Size: 12 1/4 T.D.: 373 Charge to: RJM

Csg. 8 3/8 Depth: 373 Street: [ ]

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: 20 Cement Amount Ordered: 200sx 8 3/8, 3%acc, 2%gel

Meas. Line: [ ] Displace: 22,466

### EQUIPMENT

Pumptrk: 18	No. [ ]	Cementer: Lannie	Common
Bulktrk: 9	No. [ ]	Driver: Doug	Poz. Mix
Bulktrk: P4	No. [ ]	Driver: Eravy	Cell
			Calcium

Remarks: Cement did circulate

Rat Hole: [ ]

Mouse Hole: [ ]

Centralizers: [ ]

Baskets: [ ]

DV or Port Collar: [ ]

Handling: [ ]

Mileage: [ ]

### QUALITY OILWELL CEMENTING

Guide Shoe: [ ]

Centralizer: [ ]

Baskets: [ ]

AFI Inserts: [ ]

Float Shoe: [ ]

Latch Down: [ ]

Pumptrk Charge: [ ]

Mileage: [ ]

Tax: [ ]

Discount: [ ]

Total Charge: [ ]

Signature: [ ]

# 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. 1013

Date	7-24-15	Sec.	34	Twp.	16	Range	12	County	Barton	State	KS	On Location		Finish	4:30 AM
------	---------	------	----	------	----	-------	----	--------	--------	-------	----	-------------	--	--------	---------

Location

Lease	Feltes	Well No.	#1	Owner	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	Royal #1			Charge To	RJM
Type Job	Production Service				
Hole Size	7 7/8	T.D.	3346		
Csg.	5 1/2	Depth	3336	Street	
Tbg. Size		Depth		City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	10	Shoe Joint	10	Cement Amount Ordered 180 com 10% Salt 5% Lanson	
Meas Line		Displace	79 1/4 bbl		

**EQUIPMENT**

Pumptrk	16	No.	Cementer		Common
			Helper		
Bulktrk	9	No.	Driver		Poz. Mix
			Driver		Gel.
Bulktrk	PU	No.	Driver		Calcium
			Driver	Drett	

**JOB SERVICES & REMARKS**

Remarks:		Salt
Rat Hole - 30sq		Flowseal
Mouse Hole - 15sq		Kol-Seal
Centralizers - 1-9		Mud CLR 48 - 500 gal
Baskets - 2+5		CFL-117 or CD110 CAF 38
DV or Port Collar		Sand
		Handling
Ran 3336 of 5 1/2 + Est. Circulation		Mileage
Mix 500 gal Mud Flat		5 1/2
Plugged Rat + Mouse hole		<b>FLOAT EQUIPMENT</b>
Mixed 135 sq down 5 1/2		Guide Shoe
Displaced 79 1/4 bbl		Centralizer - 9
		Baskets - 2
		AFU Inserts
Life pressure @ 600 lbs		Float Shoe - 1
		Latch Down
Landed @ 1500 lbs		
Plug held		Pumptrk Charge
		Mileage

X Signature *Mary Bueley*

Tax	
Discount	
Total Charge	



## DRILL STEM TEST REPORT

Prepared For: **RJM COMPANY**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

ATTN: KURT TALBOTT

**FELTES 1**

**34-16S-12W BARTON**

Start Date: 2015.07.21 @ 15:35:00

End Date: 2015.07.21 @ 21:25:30

Job Ticket #: 01044                      DST #: 1

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2015.07.30 @ 13:21:57

RJM COMPANY  
34-16S-12W BARTON  
FELTES 1  
DST # 1  
KANSAS CITY, A TO F  
2015.07.21



# DRILL STEM TEST REPORT

RJM COMPANY  
 P.O. BOX 256  
 CLAFLIN, KANSAS 67525-0256  
 ATTN: KURT TALBOTT

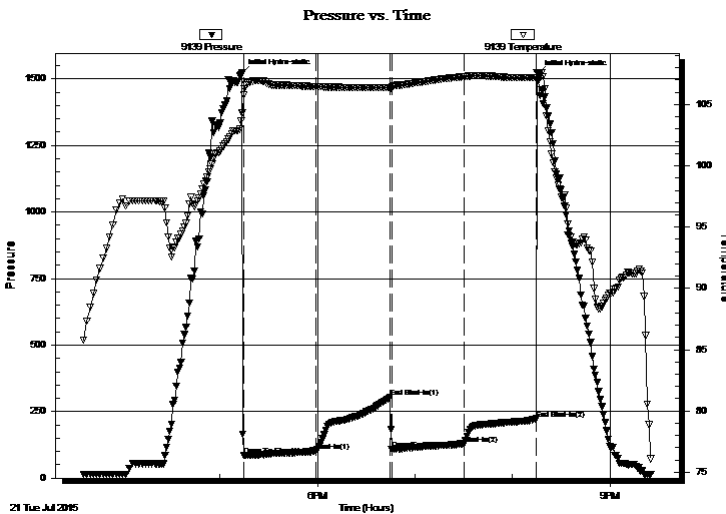
**34-16S-12W BARTON**  
**FELTES 1**  
 Job Ticket: 01044      **DST#: 1**  
 Test Start: 2015.07.21 @ 15:35:00

## GENERAL INFORMATION:

Formation: **KANSAS CITY 'A TO F'**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 17:14:30  
 Time Test Ended: 21:25:30  
 Interval: **3056.00 ft (KB) To 3136.00 ft (KB) (TVD)**  
 Total Depth: 3156.00 ft (KB) (TVD)  
 Hole Diameter: 7.78 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-56  
 Reference Elevations: 1885.00 ft (KB)  
 1880.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 9139      Outside**  
 Press@RunDepth: 127.27 psia @ 3130.97 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2015.07.21      End Date: 2015.07.21      Last Calib.: 2015.07.21  
 Start Time: 15:36:00      End Time: 21:25:30      Time On Btm: 2015.07.21 @ 17:13:30  
 Time Off Btm:

**TEST COMMENT:** 1ST OPENING 45 MINUTES SLID TOOL 12 FEET TO BOTTOM FLUSHED TOOK WEAK 1 INCH BLOW  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 45 MINUTES-VERY WEAK BUILDING BLOW BUILT TO



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1521.50	104.29	Initial Hydro-static
1	84.68	105.77	Open To Flow (1)
46	100.03	106.45	Shut-In(1)
91	303.44	106.37	End Shut-In(1)
92	108.45	106.31	Open To Flow (2)
137	127.27	107.27	Shut-In(2)
181	222.92	107.21	End Shut-In(2)
182	1517.99	107.57	Initial Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	drilling mud w with a very slight show of	1.82

## Gas Rates

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







# DRILL STEM TEST REPORT

TOOL DIAGRAM

RJM COMPANY

34-16S-12W BARTON

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

FELTES 1

Job Ticket: 01044

DST#: 1

ATTN: KURT TALBOTT

Test Start: 2015.07.21 @ 15:35:00

## Tool Information

Drill Pipe:	Length: 3040.00 ft	Diameter: 3.80 inches	Volume: 42.64 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: 56000.00 lb
			Total Volume: 42.64 bbl	Tool Chased 12.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3056.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.97 ft			
Tool Length:	99.97 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3041.00	
Hydraulic tool	5.00			3046.00	
Top Packer	5.00			3051.00	
Packer	5.00			3056.00	20.00 Bottom Of Top Packer
Anchor	5.00			3061.00	
Change Over Sub	0.75			3061.75	
Drill Pipe	63.47			3125.22	
Change Over Sub	0.75			3125.97	
Anchor	5.00			3130.97	
Recorder	0.00	9119	Inside	3130.97	
Recorder	0.00	9139	Outside	3130.97	
Bullnose	5.00			3135.97	79.97 Anchor Tool

**Total Tool Length: 99.97**



# DRILL STEM TEST REPORT

**FLUID SUMMARY**

RJM COMPANY

**34-16S-12W BARTON**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

**FELTES 1**

Job Ticket: 01044

**DST#: 1**

ATTN: KURT TALBOTT

Test Start: 2015.07.21 @ 15:35:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 46.00 sec/qt  
Water Loss: 7.98 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	drilling mud with a very slight show of	1.824

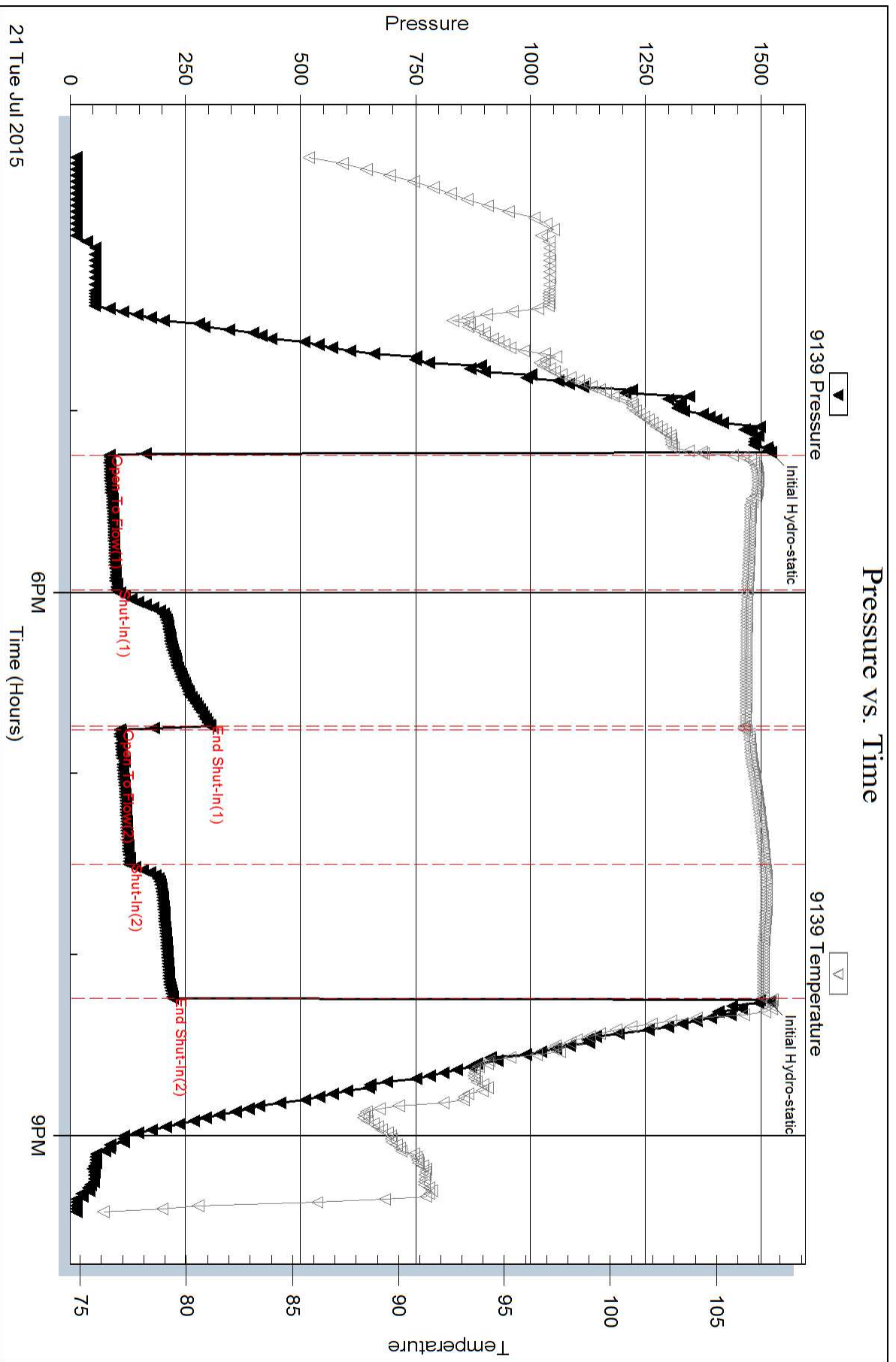
Total Length: 130.00 ft      Total Volume: 1.824 bbl

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

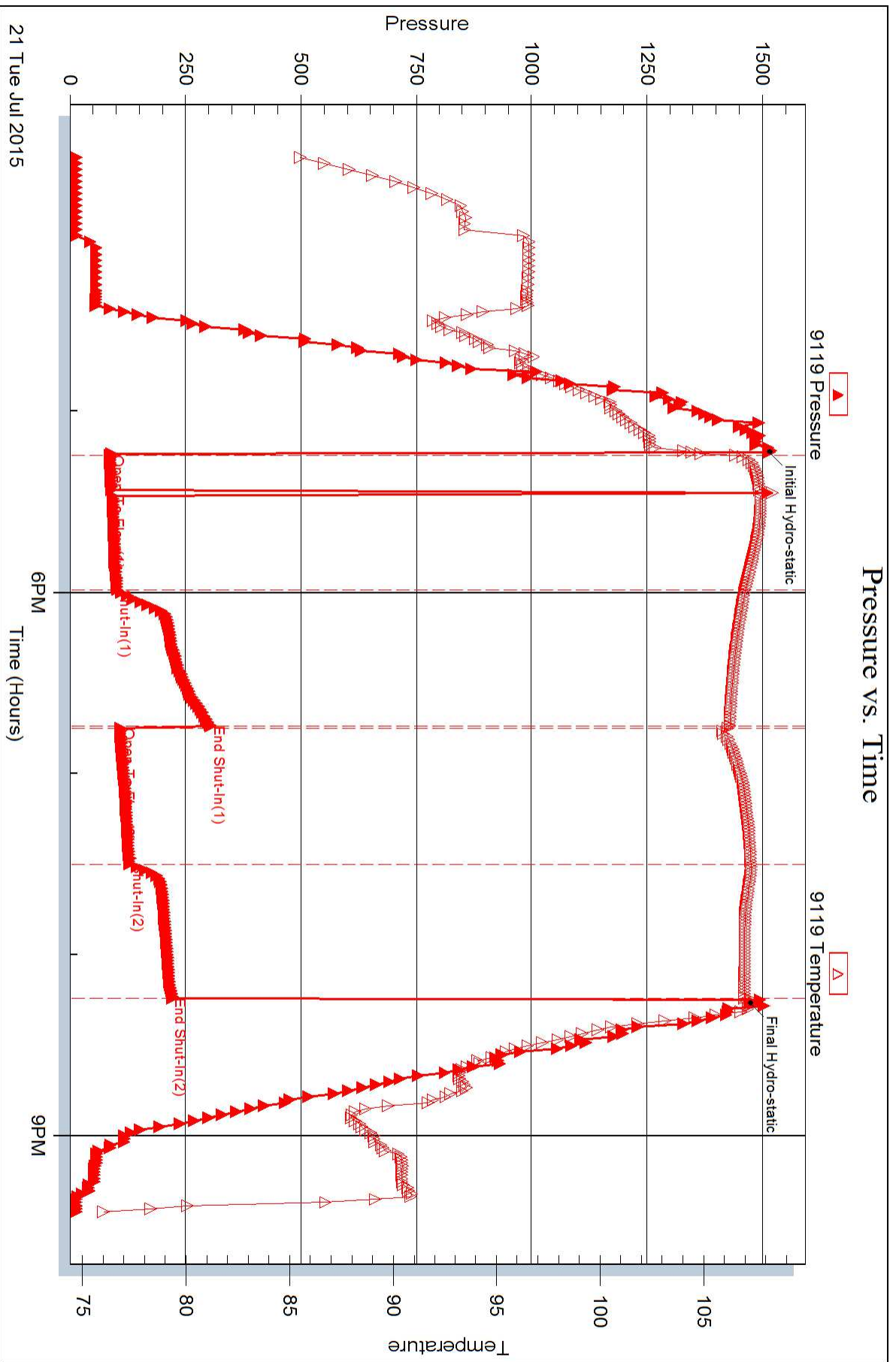
Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time



# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **RJM COMPANY**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

ATTN: KURT TALBOTT

**FELTES 1**

**34-16S-12W BARTON**

Start Date: 2015.07.22 @ 17:46:00

End Date: 2015.07.22 @ 00:00:00

Job Ticket #: 01045                      DST #: 2

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2015.07.22 @ 22:24:16

RJM COMPANY  
34-16S-12W BARTON  
FELTES 1  
DST # 2  
ARBUCKLE  
2015.07.22





# DRILL STEM TEST REPORT

RJM COMPANY  
 P.O. BOX 256  
 CLAFLIN, KANSAS 67525-0256  
 ATTN: KURT TALBOTT

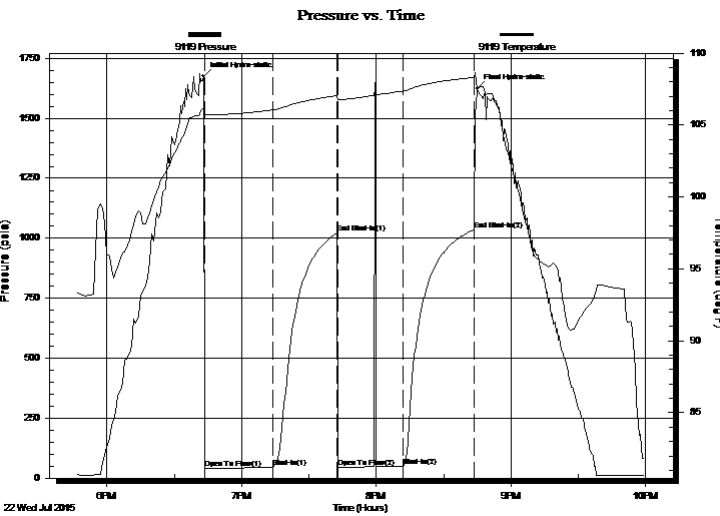
**34-16S-12W BARTON**  
**FELTES 1**  
 Job Ticket: 01045      **DST#: 2**  
 Test Start: 2015.07.22 @ 17:46:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-58  
 Interval: **3301.00 ft (KB) To 3307.00 ft (KB) (TVD)**  
 Total Depth: 3301.00 ft (KB) (TVD)  
 Reference Elevations: 1885.00 ft (KB)  
 1880.00 ft (CF)  
 Hole Diameter: 7.78 inches Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

**Serial #: 9119      Inside**  
 Press@RunDepth: 1035.58 psia @ 3332.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2015.07.22      End Date: 2015.07.22      Last Calib.: 2015.07.22  
 Start Time: 17:46:00      End Time: 21:59:30      Time On Btm: 2015.07.22 @ 18:43:00  
 Time Off Btm: 2015.07.22 @ 20:45:00

**TEST COMMENT:** 1ST OPENING 30 MINUTES WEAK BLOW FOR 12 MINUTES AND DIED  
 1ST SHUT-IN 30 MINUTES NO BLOW BACK  
 2ND OPENING 30 MINUTES NO BLOW FLUSHED TOOL GOOD SURGE WEAK BLOW 2 MINUTES AND DIED  
 2ND SHUT-IN 30 MINUTES NO BLOW BACK



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1675.37	106.17	Initial Hydro-static
1	42.31	105.75	Open To Flow (1)
31	44.38	106.06	Shut-In(1)
60	1022.46	107.04	End Shut-In(1)
60	45.20	106.75	Open To Flow (2)
89	50.70	107.36	Shut-In(2)
121	1035.58	108.31	End Shut-In(2)
122	1623.68	107.56	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	oil cut mud 95 mud 5 oil	0.07
10.00	CLEAN OIL	0.14

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RJM COMPANY

34-16S-12W BARTON

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

FELTES 1

Job Ticket: 01045

DST#: 2

ATTN: KURT TALBOTT

Test Start: 2015.07.22 @ 17:46:00

## Tool Information

Drill Pipe:	Length: 3299.00 ft	Diameter: 3.80 inches	Volume: 46.28 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:	630000.0 lb
			<u>Total Volume: 46.28 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3301.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	56.00 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			3286.00	
Hydraulic tool	5.00			3291.00	
Top Packer	5.00			3296.00	
Packer	5.00			3301.00	20.00 Bottom Of Top Packer
Anchor	31.00			3332.00	
Recorder	0.00	9119	Inside	3332.00	
Recorder	0.00	9139	Outside	3332.00	
Bullnose	5.00			3337.00	36.00 Anchor Tool

**Total Tool Length: 56.00**





# DRILL STEM TEST REPORT

**FLUID SUMMARY**

RJM COMPANY

**34-16S-12W BARTON**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

**FELTES 1**

Job Ticket: 01045

**DST#: 2**

ATTN: KURT TALBOTT

Test Start: 2015.07.22 @ 17:46:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 47.00 sec/qt  
Water Loss: 8.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	oil cut mud 95 mud 5 oil	0.070
10.00	CLEAN OIL	0.140

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

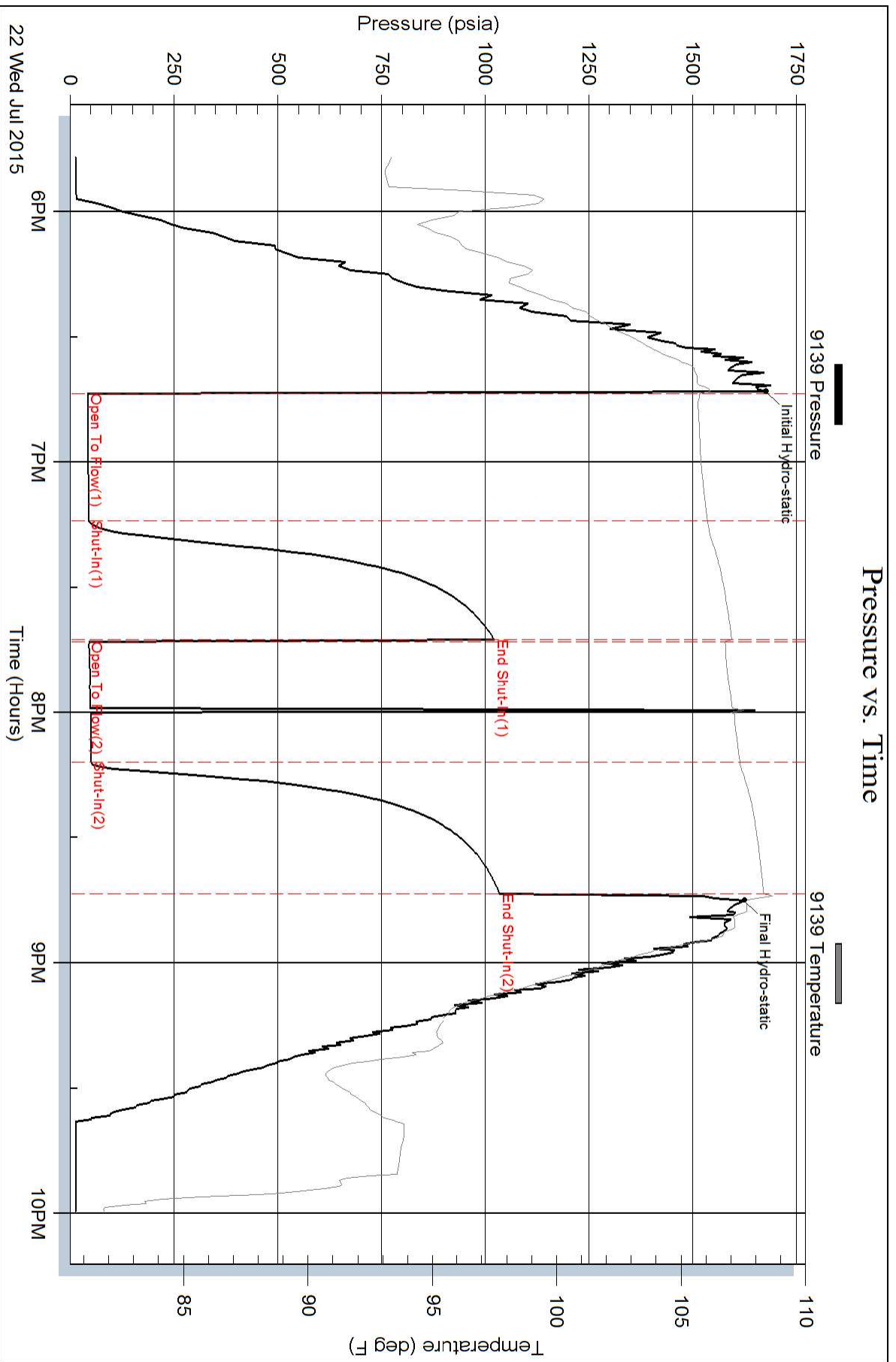
Serial #:

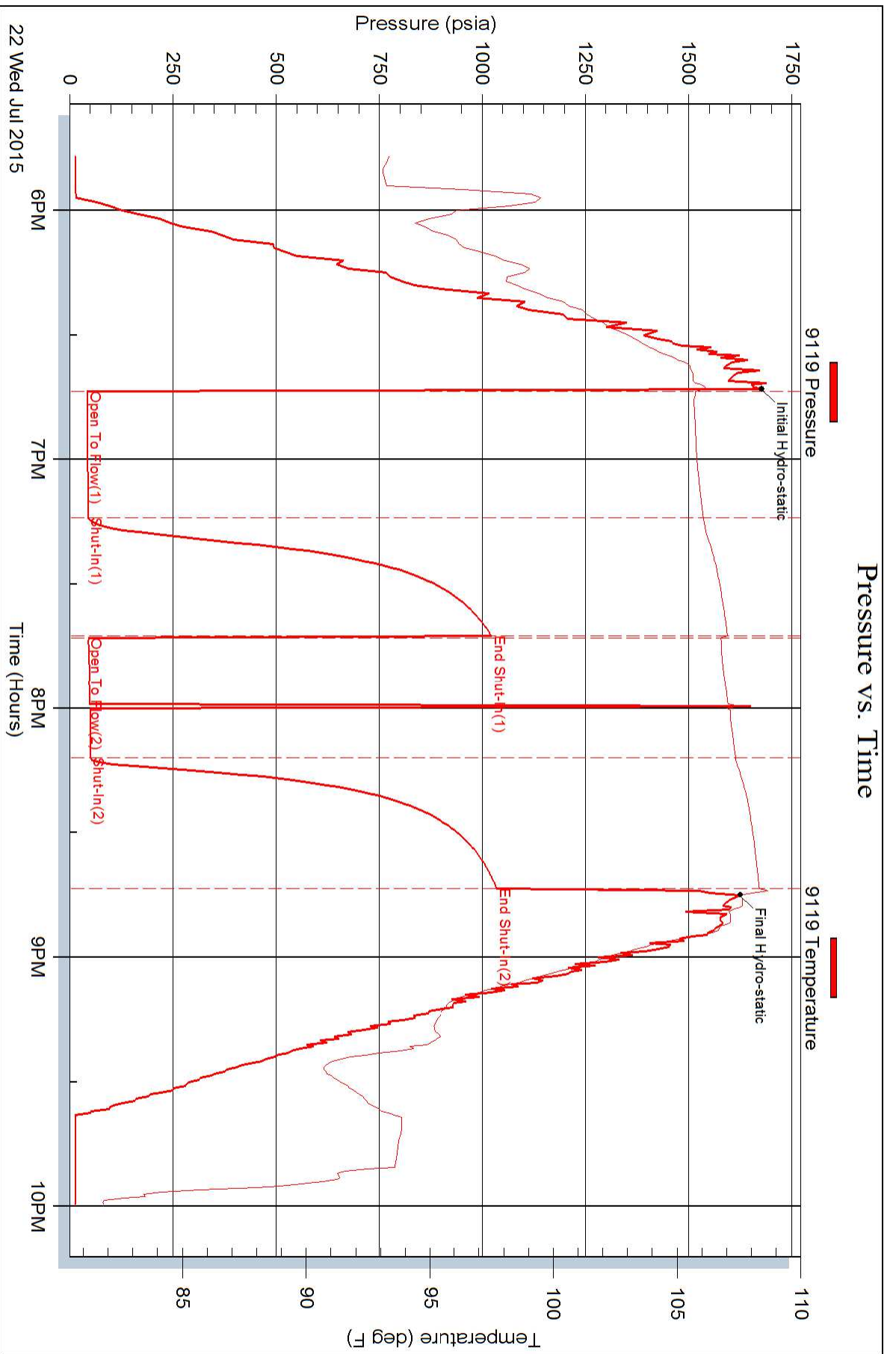
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **RJM COMPANY**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

ATTN: KURT TALBOTT

**FELTES 1**

**34-16S-12W BARTON**

Start Date: 2015.07.23 @ 02:50:00

End Date: 2015.07.23 @ 00:00:00

Job Ticket #: 01046                      DST #: 3

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2015.07.23 @ 08:52:45

RJM COMPANY  
34-16S-12W BARTON  
FELTES 1  
DST # 3  
ARBUCKLE  
2015.07.23





# DRILL STEM TEST REPORT

RJM COMPANY  
 P.O. BOX 256  
 CLAFLIN, KANSAS 67525-0256  
 ATTN: KURT TALBOTT

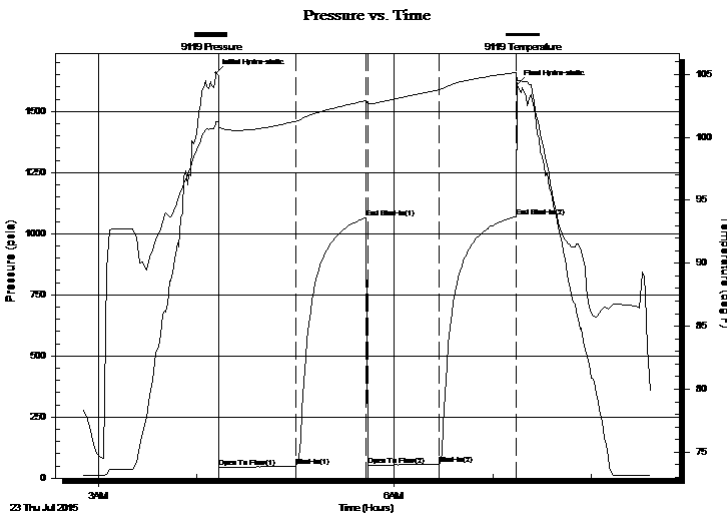
**34-16S-12W BARTON**  
**FELTES 1**  
 Job Ticket: 01046 **DST#: 3**  
 Test Start: 2015.07.23 @ 02:50:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3301.00 ft (KB) To 3340.00 ft (KB) (TVD)**  
 Total Depth: 3340.00 ft (KB) (TVD)  
 Hole Diameter: 7.78 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1  
 Reference Elevations: 1885.00 ft (KB)  
 1880.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 9119 Inside**  
 Press@RunDepth: 1069.64 psia @ 3335.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2015.07.23 End Date: 2015.07.23 Last Calib.: 2015.07.23  
 Start Time: 02:50:00 End Time: 08:36:00 Time On Btm: 2015.07.23 @ 04:11:30  
 Time Off Btm: 2015.07.23 @ 07:15:00

**TEST COMMENT:** 1ST OPENING 45 MINUTES WEAK STEADY 1 INCH BLOW THROUGH OUT  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 45 MINUTES-NO BLOW FOR 3 MINUTES THAN VERY WEAK SURFACE BLOW  
 2ND SHUT-IN 45 MINUTES-NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1656.51	101.21	Initial Hydro-static
2	43.99	100.80	Open To Flow (1)
49	49.16	101.26	Shut-In(1)
92	1065.90	102.91	End Shut-In(1)
93	51.22	102.67	Open To Flow (2)
136	58.04	103.77	Shut-In(2)
183	1069.64	105.15	End Shut-In(2)
184	1611.35	104.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OIL CUT MUD 20 OIL 80 MUD	0.14
40.00	CLEAN OIL	0.56

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RJM COMPANY

34-16S-12W BARTON

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

FELTES 1

Job Ticket: 01046

DST#: 3

ATTN: KURT TALBOTT

Test Start: 2015.07.23 @ 02:50:00

## Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.80 inches	Volume: 46.18 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: 46.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3301.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	1	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			3286.00	
Hydraulic tool	5.00			3291.00	
Top Packer	5.00			3296.00	
Packer	5.00			3301.00	20.00 Bottom Of Top Packer
Anchor	34.00			3335.00	
Recorder	0.00	9119	Inside	3335.00	
Recorder	0.00	9139	Outside	3335.00	
Bullnose	5.00			3340.00	39.00 Anchor Tool

**Total Tool Length: 59.00**



# DRILL STEM TEST REPORT

**FLUID SUMMARY**

RJM COMPANY

**34-16S-12W BARTON**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

**FELTES 1**

Job Ticket: 01046

**DST#: 3**

ATTN: KURT TALBOTT

Test Start: 2015.07.23 @ 02:50:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 47.00 sec/qt  
Water Loss: 8.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OIL CUT MUD 20 OIL 80 MUD	0.140
40.00	CLEAN OIL	0.561

Total Length: 50.00 ft      Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

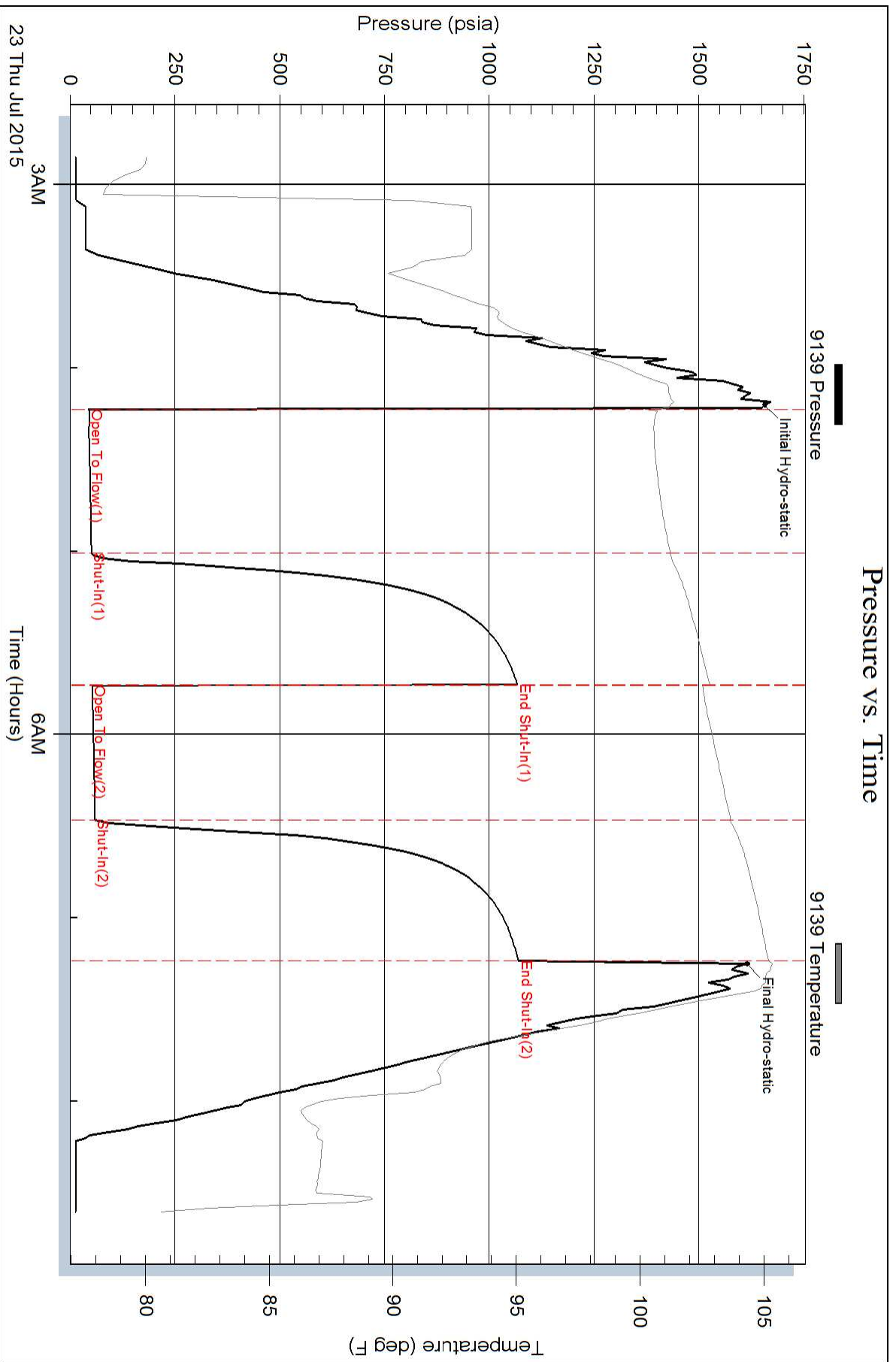
Laboratory Name:

Laboratory Location:

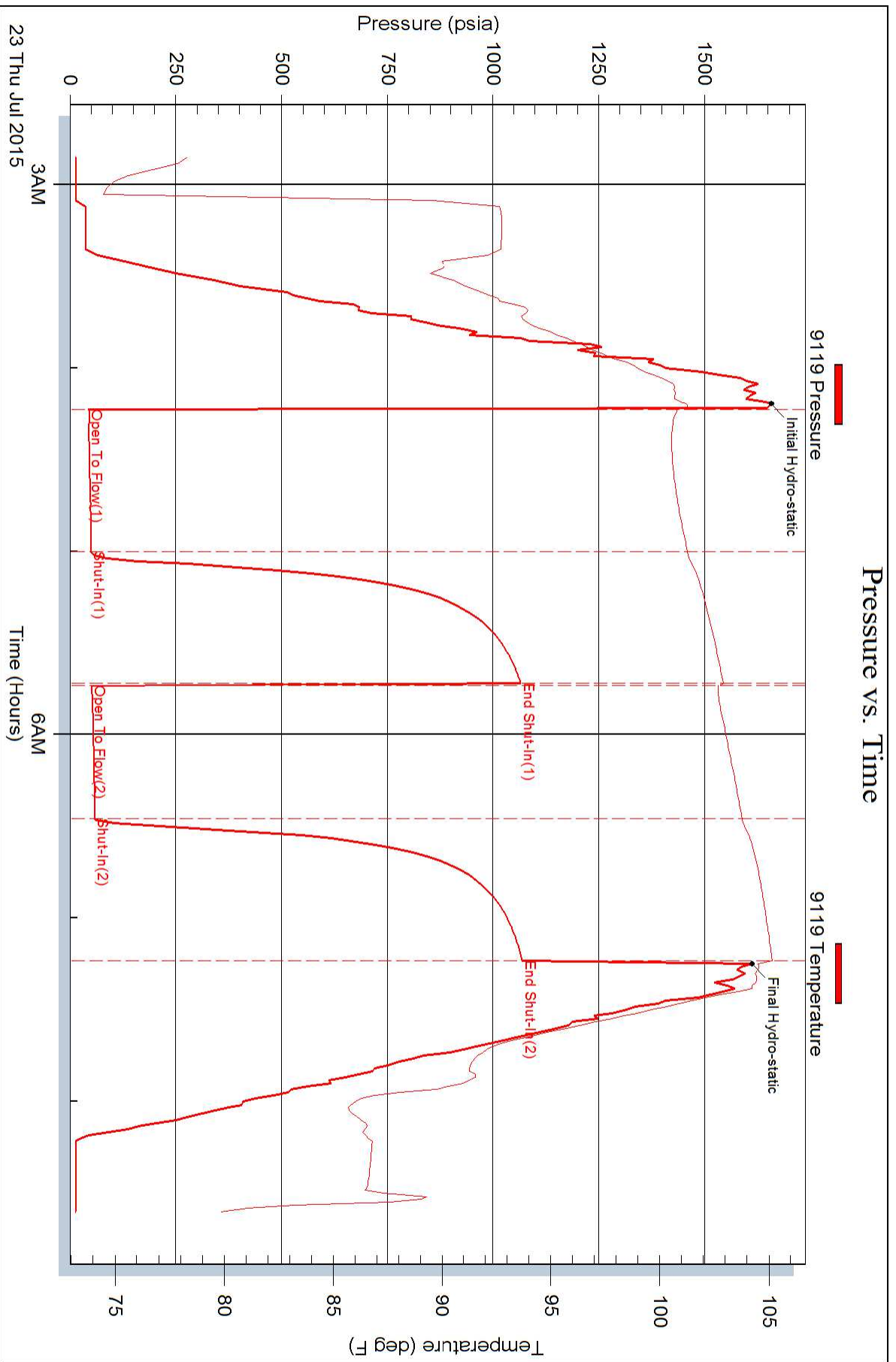
Recovery Comments:



### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **RJM COMPANY**

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

ATTN: KURT TALBOTT

**FELTES 1**

**34-16S-12W BARTON**

Start Date: 2015.07.23 @ 13:43:00

End Date: 2015.07.23 @ 00:00:00

Job Ticket #: 01047                      DST #: 4

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2015.07.23 @ 19:50:45

RJM COMPANY  
34-16S-12W BARTON  
FELTES 1  
DST # 4  
ARBUCKLE  
2015.07.23



# DRILL STEM TEST REPORT

RJM COMPANY  
 P.O. BOX 256  
 CLAFLIN, KANSAS 67525-0256  
 ATTN: KURT TALBOTT

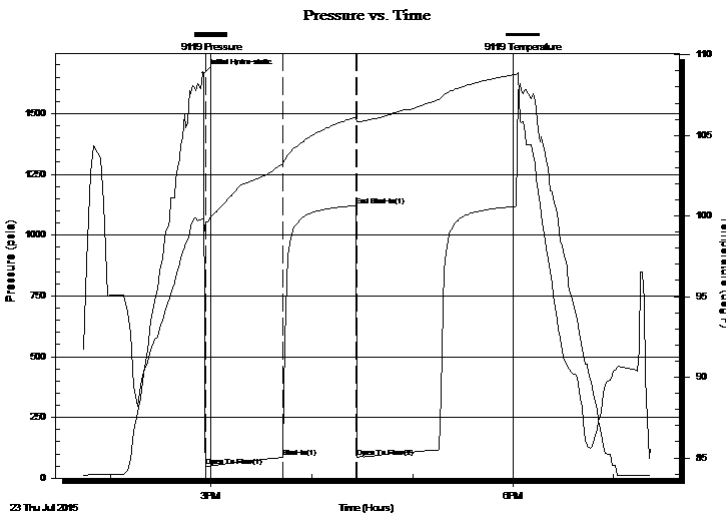
**34-16S-12W BARTON**  
**FELTES 1**  
 Job Ticket: 01047 **DST#: 4**  
 Test Start: 2015.07.23 @ 13:43:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3303.00 ft (KB) To 3346.00 ft (KB) (TVD)**  
 Total Depth: 3346.00 ft (KB) (TVD)  
 Hole Diameter: 7.78 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1  
 Reference Elevations: 1885.00 ft (KB)  
 1880.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 9119 Inside**  
 Press@RunDepth: 1121.90 psia @ 3341.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2015.07.23 End Date: 2015.07.23 Last Calib.: 2015.07.23  
 Start Time: 13:43:00 End Time: 19:22:30 Time On Btm: 2015.07.23 @ 14:55:30  
 Time Off Btm:

**TEST COMMENT:** 1ST OPENING 45 MINUTES-WEAK BUILDING BLOW BUILT TO 11 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 50 MINUTES-no blow for 3 minutes then w weak building blow built to 8 inches into the water  
 2ND SHUT-IN 45 MINUTES-NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1666.32	99.90	Initial Hydro-static
1	47.26	99.62	Open To Flow (1)
47	84.94	103.22	Shut-In(1)
91	1121.90	106.13	End Shut-In(1)
92	85.71	105.83	Open To Flow (2)

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	clean oil gravity 40 corrected	0.84
50.00	oil cut mud 25 oil 75 mud	0.70
60.00	heavy oil cut mud 80 oil 15 mud 5 w ater	0.84

## Gas Rates

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



# DRILL STEM TEST REPORT

RJM COMPANY  
 P.O. BOX 256  
 CLAFLIN, KANSAS 67525-0256  
 ATTN: KURT TALBOTT

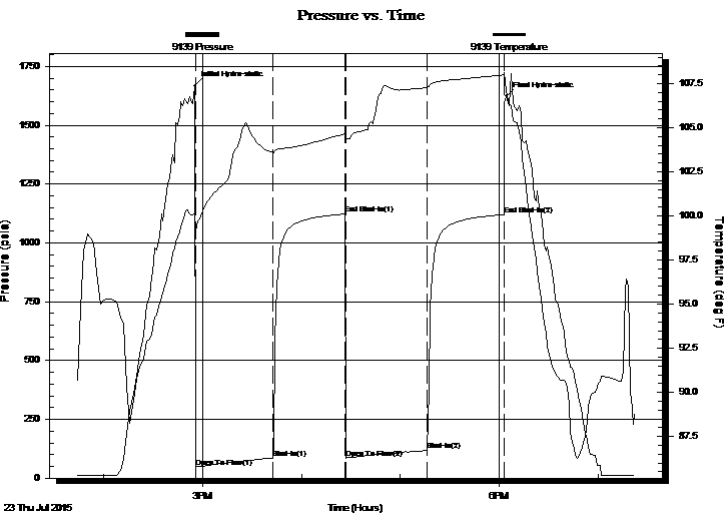
**34-16S-12W BARTON**  
**FELTES 1**  
 Job Ticket: 01047 **DST#: 4**  
 Test Start: 2015.07.23 @ 13:43:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3303.00 ft (KB) To 3346.00 ft (KB) (TVD)**  
 Total Depth: 3346.00 ft (KB) (TVD)  
 Hole Diameter: 7.78 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1  
 Reference Elevations: 1885.00 ft (KB)  
 1880.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 9139 Outside**  
 Press@RunDepth: 1119.96 psia @ 3341.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2015.07.23 End Date: 2015.07.23 Last Calib.: 2015.07.23  
 Start Time: 13:43:00 End Time: 19:22:30 Time On Btm: 2015.07.23 @ 14:55:30  
 Time Off Btm: 2015.07.23 @ 18:04:00

**TEST COMMENT:** 1ST OPENING 45 MINUTES-WEAK BUILDING BLOW BUILT TO 11 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES-NO BLOW BACK  
 2ND OPENING 50 MINUTES-no blow for 3 minutes then w weak building blow built to 8 inches into the water  
 2ND SHUT-IN 45 MINUTES-NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1667.12	100.12	Initial Hydro-static
1	47.26	99.14	Open To Flow (1)
47	85.61	103.59	Shut-In(1)
91	1122.47	104.66	End Shut-In(1)
92	86.17	104.34	Open To Flow (2)
141	118.32	107.25	Shut-In(2)
187	1119.96	107.98	End Shut-In(2)
189	1622.99	107.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	clean oil gravity 40 corrected	0.84
50.00	oil cut mud 25 oil 75 mud	0.70
60.00	heavy oil cut mud 80 oil 15 mud 5 water	0.84

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RJM COMPANY

34-16S-12W BARTON

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

FELTES 1

Job Ticket: 01047

DST#: 4

ATTN: KURT TALBOTT

Test Start: 2015.07.23 @ 13:43:00

## Tool Information

Drill Pipe:	Length: 3293.00 ft	Diameter: 3.80 inches	Volume: 46.19 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: 67000.00 lb
			<u>Total Volume: 46.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3303.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	63.00 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			3288.00	
Hydraulic tool	5.00			3293.00	
Top Packer	5.00			3298.00	
Packer	5.00			3303.00	20.00 Bottom Of Top Packer
Anchor	38.00			3341.00	
Recorder	0.00	9119	Inside	3341.00	
Recorder	0.00	9139	Outside	3341.00	
Bullnose	5.00			3346.00	43.00 Anchor Tool

**Total Tool Length: 63.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

RJM COMPANY

34-16S-12W BARTON

P.O. BOX 256  
CLAFLIN, KANSAS 67525-0256

FELTES 1

Job Ticket: 01047

DST#: 4

ATTN: KURT TALBOTT

Test Start: 2015.07.23 @ 13:43:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 54.00 sec/qt  
Water Loss: 8.80 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	clean oil gravity 40 corrected	0.842
50.00	oil cut mud 25 oil 75 mud	0.701
60.00	heavy oil cut mud 80 oil 15 mud 5 w ater	0.842

Total Length: 170.00 ft      Total Volume: 2.385 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

