

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

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

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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 Geologist Report / Mud Logs <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
--	---

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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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

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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	ROSE 5-1
Doc ID	1319781

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	6	50 sx cement	3896-3902
4	2	none	3896-3898





REMIT TO  
 Consolidated Oil Well Services, LLC  
 Dept:970  
 P.O.Box 4346  
 Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884  
 Chanute, KS 66720  
 620/431-9210, 1-800/467-8676  
 Fax 620/431-0012

Invoice

Invoice#

808762

Invoice Date: 10/05/16

Terms: Net 30

Page 1

HARTMAN OIL CO, INC  
 6031 10TH ST  
 GREAT BEND KS 67530  
 USA  
 6202772511

ROSE 5-1

86220

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0453	Cement Pump Charge 4001' - 5000'	1.000	2,800.0000	45.000	1,540.00
CE0002	Equipment Mileage Charge - Heavy Equipment	40.000	7.1500	45.000	157.30
CE0710	Cement Delivery Charge	1.000	1,832.0000	45.000	1,007.60
CC5862	ThixoBlend III	145.000	26.0000	45.000	2,073.50
CC6077	Kolseal	725.000	0.5000	45.000	199.38
CC5831	Lite-Weight Blend VII (60:40:8)	450.000	17.5000	45.000	4,331.25
CC6075	Celloflake	113.000	3.0000	45.000	186.45
CC6125	Mud Flush, Viscous	500.000	1.0000	45.000	275.00
CP8485	5 1/2" Float Shoe, AFU	1.000	585.0000	45.000	321.75
CP8254	5 1/2" Latch Down Plug & Assembly	1.000	400.0000	45.000	220.00
CP8554	5 1/2" Centralizer	8.000	81.0000	45.000	356.40
CP8629	5 1/2" Basket	1.000	385.0000	45.000	211.75
CP8801	5 1/2" DV Tool	1.000	5,970.0000	45.000	3,283.50

Subtotal 25,752.50

Discounted Amount 11,588.63

SubTotal After Discount 14,163.87

**NEW WELL  
 DRILLED**

Amount Due 27,523.43 If paid after 11/04/16

Tax: 974.01

Total: 15,137.89

*[Handwritten Signature]*  
 10-10-16



**CONSOLIDATED**  
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

6787  
6682  
**Invoice # 800762**

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

TICKET NUMBER 51596  
LOCATION Oakley Ks  
FOREMAN Jerry V  
Walt D

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-2-16	3613	Rose 5-1	1	16S	35W	Wich. Va
CUSTOMER Hartman Oil			Pence W to Ch. N to Curve W to curve W into			
MAILING ADDRESS 6031 10th Street			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Great Bend			731	Miles S		
STATE KS			479	Cory D		
ZIP CODE 67530			772 7129	Keith C		

JOB TYPE 2 Stage HOLE SIZE 7 7/8 HOLE DEPTH 4725 CASING SIZE & WEIGHT 5 1/2 20#  
CASING DEPTH 4719 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER DV @ 2364  
SLURRY WEIGHT 13.8/12.5 SLURRY VOL 1.42/1.89 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 351  
DISPLACEMENT 103/52 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting & rig up on Southwind #2, run float equipment centralizer on 2, 5, 9, 12, 16, 19, 20, 54, basket on 58 1/2 & DV tool on top of 58 @ 2364 running to bottom pump ball thru Circ Vic & 34 pump 5 bbl H<sub>2</sub>O, mud flush, 5 bbl H<sub>2</sub>O mix 145 SKS + H<sub>2</sub>O. Shut down release plug clear pump & lines & displace with 50 bbl H<sub>2</sub>O and 5.3 bbl mud. Final lift 1100# plug based @ 1700# released back & float held open tool 1100# & circ shrs. Pump 20 SKS in W.H., 30 SKS in R.H., mixed 400 SKS 6% K<sub>2</sub>CO<sub>3</sub> 8 1/2 gal, 1 1/4# Flu Seal, release plug & clear lines, Displace 5.3 1/2 BBL H<sub>2</sub>O @ 700#, Landed Plug & shut Tool @ 2000# release pressure Tool held. Cement did Circ. Thank You  
Walt & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0453	1	PUMP CHARGE	2800.00	2800.00
CE0002	40	MILEAGE	7.15	286.00
CE0710	26.17	ton mileage delivery	1.75	1,832.00
CC5862	145 SKS	Thru blend III	26.00	3770.00
CC6077	725 #	Kolseal	50	36250
CC5831	450-SKS	Liteblend III	17.50	7,875.00
CC6075	113 #	Flu Seal	3.00	339.00
CC6125	500 gal	mud flush	1.00	500.00
<del>CP8485</del>			7585.00	585.00
CP8485	1	5 1/2 AFIL float shoe	400.00	400.00
CP8254	1	5 1/2 latch down assy	81.00	648.00
CP8554	8	5 1/2 centralizers	385.00	385.00
CP8629	1	5 1/2 basket		
<del>CP8801</del>				
CP8801	1	5 1/2 DV TOOL	5970.00	5970.00
			546.00	25,752.50
			-45%	14,585.63
			subtotal	14,163.20
			SALES TAX	974.07
			ESTIMATED TOTAL	15137.89

Revin 3737

AUTHORIZATION KA A TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

# Quality Well Service, Inc.

324 Simpson St.  
Pratt, KS 67124

# Invoice

Date	Invoice #
9/16/2016	C-1478

<b>Bill To</b>
Hartman Oil Co., Inc. 10500 E. Berkeley SQ Parkway STE 100 Wichita, KS 67206

*New Well Drilling*

P.O. No.	Terms	Lease Name
		Rose #5-1

Description	Qty	Rate	Amount
8 5/8 Wooden Plug	1	85.00	85.00T
Common	250	15.50	3,875.00
Gel	5	22.00	110.00
Calcium	9	60.00	540.00
SFC 0-500'	1	600.00	600.00
Handling	264	2.10	554.40
.08 * sacks * miles	11,000	0.08	880.00
Service Supervisor	1	150.00	150.00
LMV	45	3.75	168.75
Heavy Equipment Mileage	90	8.00	720.00
Customer Discount		-38.25	-38.25
Customer Discount		-3,419.17	-3,419.17
Discount Expires after 30 days from the date of the invoice		0.00	0.00
Rose #5-1 Wichita Co.			

Thank You for your business!	<b>Subtotal</b>	\$4,225.73
	<b>Sales Tax</b>	\$7.19
	<b>Total</b>	\$4,232.92



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

### **Rose #5-1**

#### **1-16s-35w Wichita,KS**

Start Date: 2016.09.28 @ 02:20:03

End Date: 2016.09.28 @ 09:29:33

Job Ticket #: 65515                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.10.03 @ 13:21:53





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Hartman Oil Company  
10500 E Berkeley Sq Pkw y  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**1-16s-35w Wichita,KS**

**Rose #5-1**

Job Ticket: 65515

**DST#: 1**

Test Start: 2016.09.28 @ 02:20:03

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:44:33

Time Test Ended: 09:29:33

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

**Interval: 3885.00 ft (KB) To 3916.00 ft (KB) (TVD)**

Reference Elevations: 3088.00 ft (KB)

Total Depth: 3916.00 ft (KB) (TVD)

3078.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 294.95 psig @ 3886.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.09.28

End Date:

2016.09.28

Last Calib.:

2016.09.28

Start Time: 02:20:08

End Time:

09:29:32

Time On Btm:

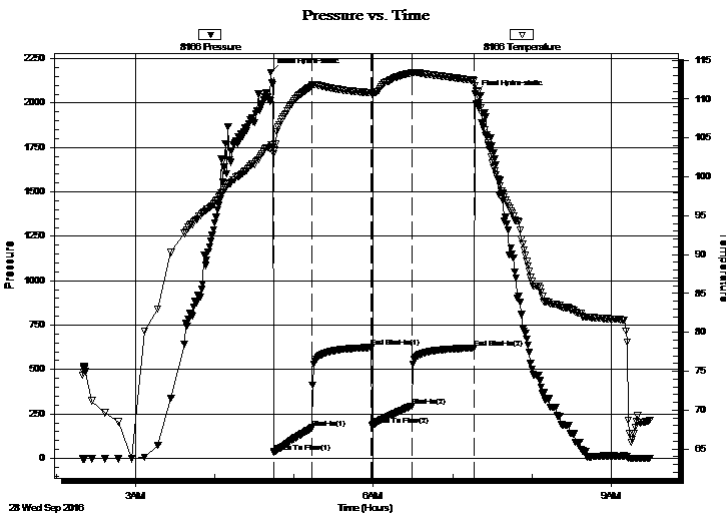
2016.09.28 @ 04:42:33

Time Off Btm:

2016.09.28 @ 07:17:03

TEST COMMENT: IF: BOB in 6 min.  
IS: No return.  
FF: BOB in 9 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.63	103.80	Initial Hydro-static
2	35.72	103.00	Open To Flow (1)
31	170.81	111.67	Shut-In(1)
76	624.74	110.81	End Shut-In(1)
77	184.95	110.63	Open To Flow (2)
107	294.95	113.35	Shut-In(2)
154	621.41	112.42	End Shut-In(2)
155	2050.18	111.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
248.00	ocmw 5%o 75%w 20%m	3.48
186.00	gocw m 10%g 10%o 30%w 50%m	2.61
155.00	gocw m 10%g 20%o 20%w 50%m	2.17
36.00	oil 100%o	0.50

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company

**1-16s-35w Wichita,KS**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**Rose #5-1**

Job Ticket: 65515

**DST#: 1**

Test Start: 2016.09.28 @ 02:20:03

## Tool Information

Drill Pipe:	Length: 3870.00 ft	Diameter: 3.80 inches	Volume: 54.29 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 54.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3885.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			3866.00	
Shut In Tool	5.00			3871.00	
Hydraulic tool	5.00			3876.00	
Packer	5.00			3881.00	20.00 Bottom Of Top Packer
Packer	4.00			3885.00	
Stubb	1.00			3886.00	
Recorder	0.00	8875	Inside	3886.00	
Recorder	0.00	8166	Outside	3886.00	
Perforations	25.00			3911.00	
Bullnose	5.00			3916.00	31.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>51.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Company

**1-16s-35w Wichita,KS**

10500 E Berkeley Sq Pkw y  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**Rose #5-1**

Job Ticket: 65515

**DST#: 1**

Test Start: 2016.09.28 @ 02:20:03

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

26000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 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 bbbl
248.00	ocmw 5%o 75%w 20%m	3.479
186.00	gocw m 10%g 10%o 30%w 50%m	2.609
155.00	gocw m 10%g 20%o 20%w 50%m	2.174
36.00	oil 100%o	0.505

Total Length: 625.00 ft

Total Volume:

8.767 bbl

Num Fluid Samples: 0

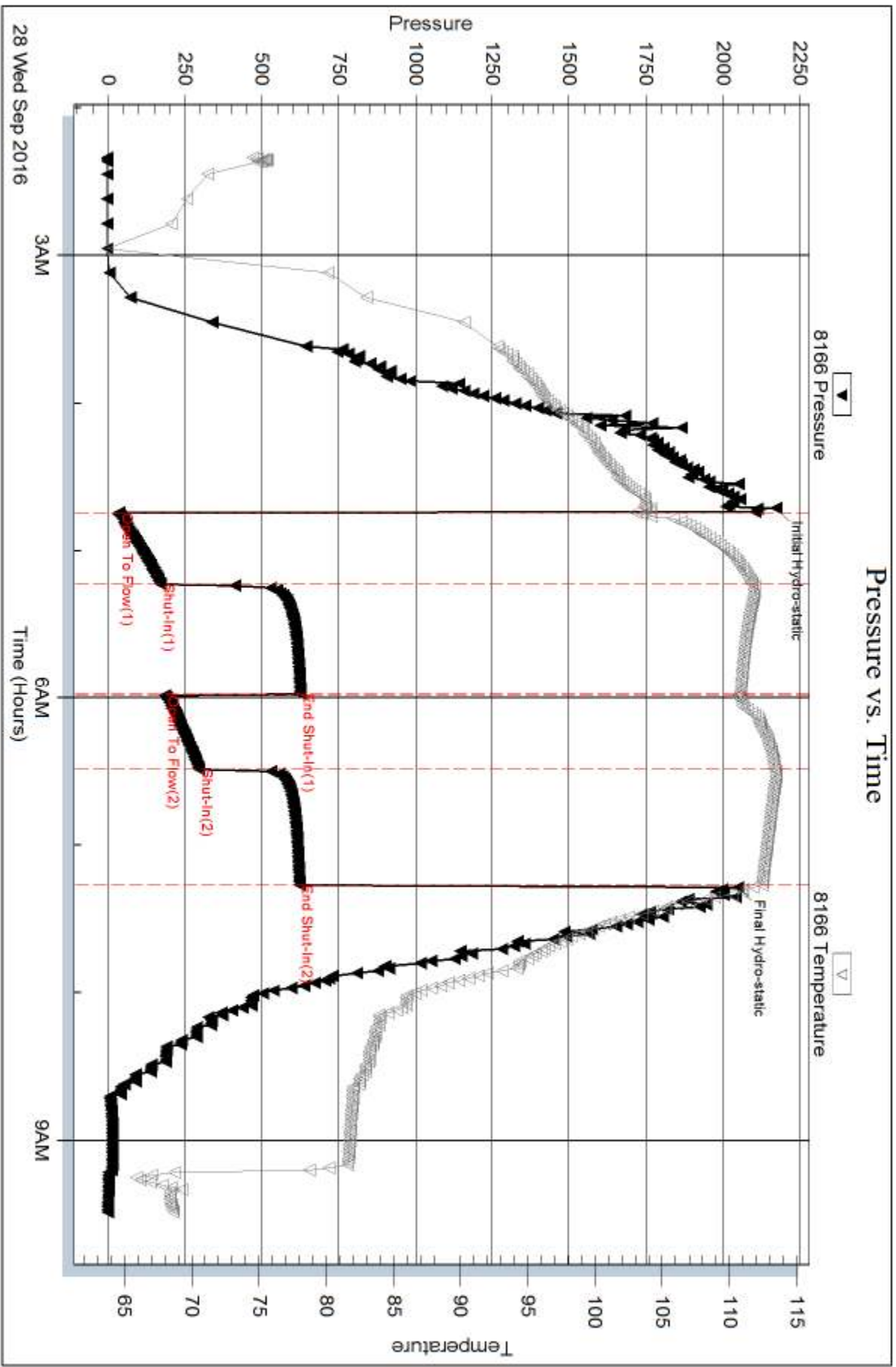
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .20@58=26000



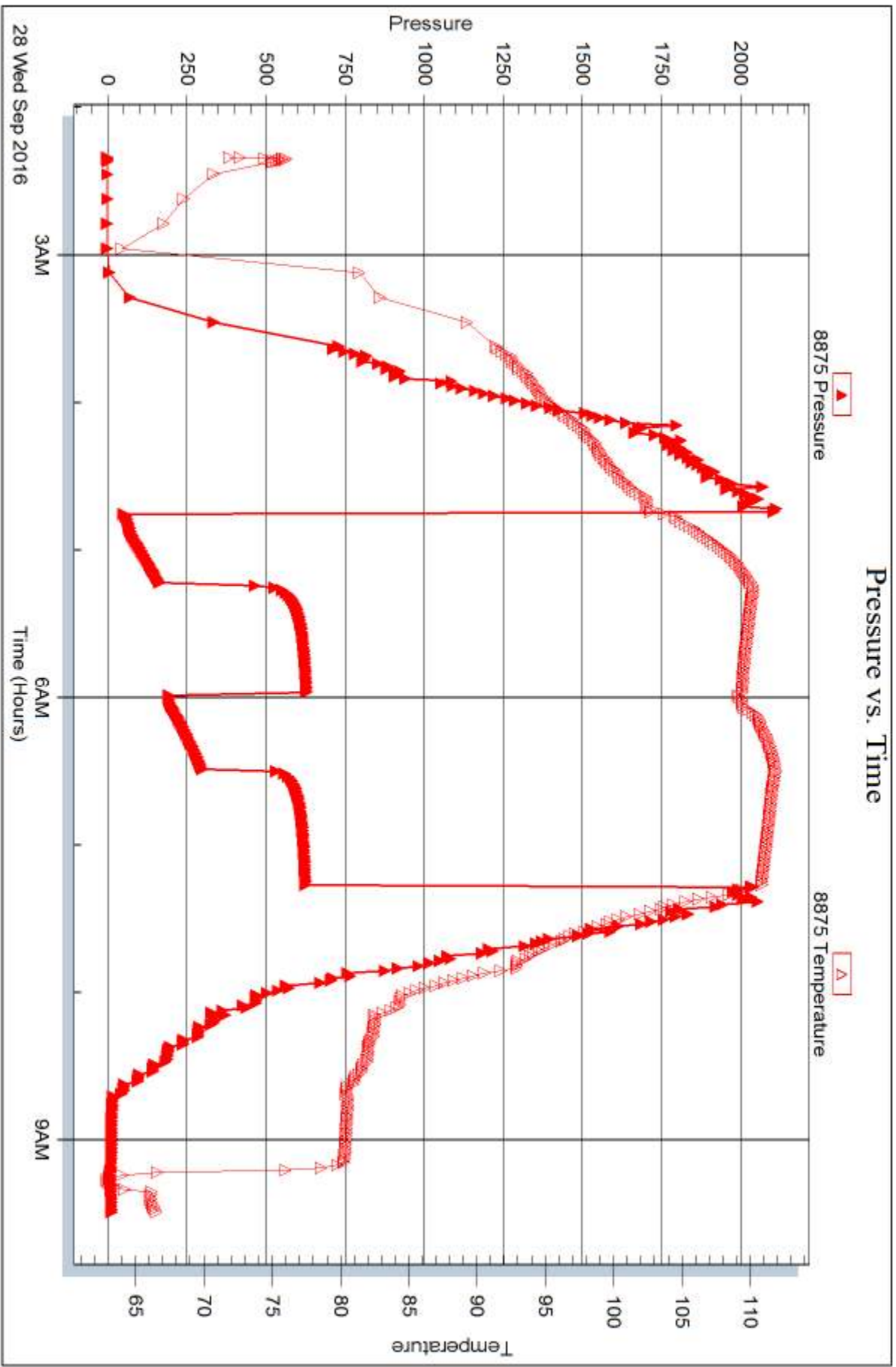
Serial #: 8875

Inside

Hartman Oil Company

Rose #5-1

DST Test Number: 1



28 Wed Sep 2016

3AM

6AM

9AM

Trilobite Testing, Inc

Ref. No: 65515

Printed: 2016.10.03 @ 13:21:55



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

### **Rose #5-1**

#### **1-16s-35w Wichita,KS**

Start Date: 2016.09.28 @ 22:10:28

End Date: 2016.09.29 @ 04:22:28

Job Ticket #: 65516                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.10.03 @ 13:21:11



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Hartman Oil Company  
 10500 E Berkeley Sq Pkw y  
 Ste 100  
 Wichita, KS 67206  
 ATTN: Chris Peters

**1-16s-35w Wichita,KS**

**Rose #5-1**

Job Ticket: 65516

**DST#: 2**

Test Start: 2016.09.28 @ 22:10:28

## GENERAL INFORMATION:

Formation: **LKC C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:37:58  
 Time Test Ended: 04:22:28  
 Interval: **3956.00 ft (KB) To 3978.00 ft (KB) (TVD)**  
 Total Depth: 3978.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 79  
 Reference Elevations: 3088.00 ft (KB)  
 3078.00 ft (CF)  
 KB to GR/CF: 10.00 ft

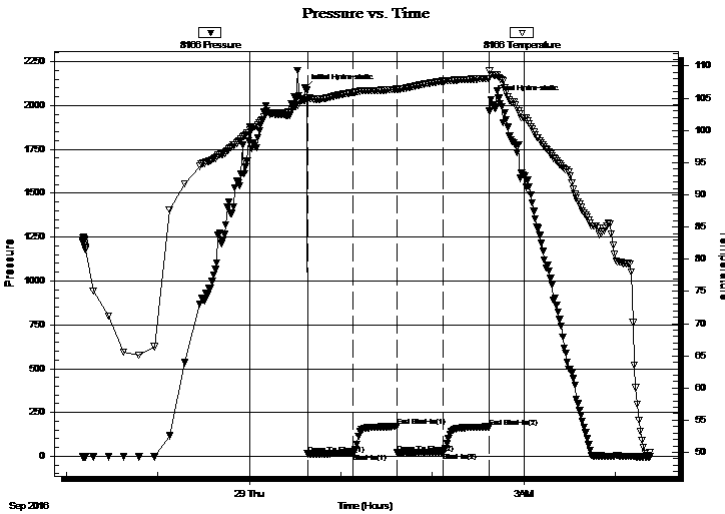
## Serial #: 8166

**Outside**

Press@RunDepth: 24.30 psig @ 3957.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.09.28 End Date: 2016.09.29 Last Calib.: 2016.09.29  
 Start Time: 22:10:33 End Time: 04:22:27 Time On Btm: 2016.09.29 @ 00:36:28  
 Time Off Btm: 2016.09.29 @ 02:38:28

TEST COMMENT: IF: Surface blow died in 8 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2099.06	104.65	Initial Hydro-static
2	13.97	104.80	Open To Flow (1)
32	18.05	105.89	Shut-In(1)
60	170.35	106.39	End Shut-In(1)
61	19.62	106.33	Open To Flow (2)
91	24.30	107.66	Shut-In(2)
121	168.39	108.09	End Shut-In(2)
122	2032.81	108.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	free oil 100%o	0.03
15.00	ocm 10%o 90%m	0.21

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company

**1-16s-35w Wichita,KS**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**Rose #5-1**

Job Ticket: 65516

**DST#: 2**

Test Start: 2016.09.28 @ 22:10:28

## Tool Information

Drill Pipe:	Length: 3961.00 ft	Diameter: 3.80 inches	Volume: 55.56 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:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 55.56 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3956.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	42.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			3937.00	
Shut In Tool	5.00			3942.00	
Hydraulic tool	5.00			3947.00	
Packer	5.00			3952.00	20.00 Bottom Of Top Packer
Packer	4.00			3956.00	
Stubb	1.00			3957.00	
Recorder	0.00	8875	Inside	3957.00	
Recorder	0.00	8166	Outside	3957.00	
Perforations	16.00			3973.00	
Bullnose	5.00			3978.00	22.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>42.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hartman Oil Company  
10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**1-16s-35w Wichita,KS**  
**Rose #5-1**  
Job Ticket: 65516      **DST#: 2**  
Test Start: 2016.09.28 @ 22:10:28

### Mud and Cushion Information

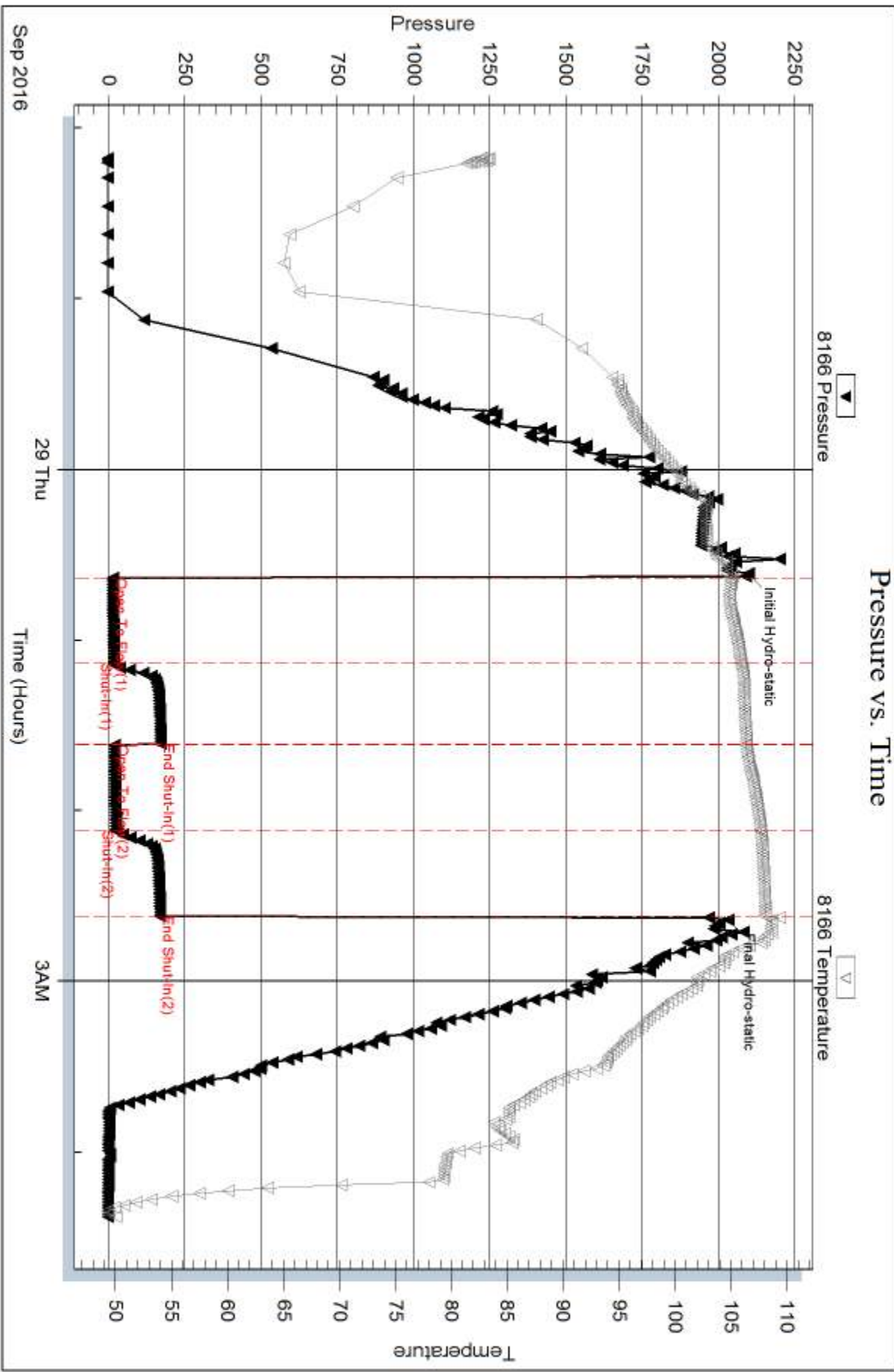
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 72.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	free oil 100%o	0.028
15.00	ocm 10%o 90%m	0.210

Total Length: 17.00 ft      Total Volume: 0.238 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



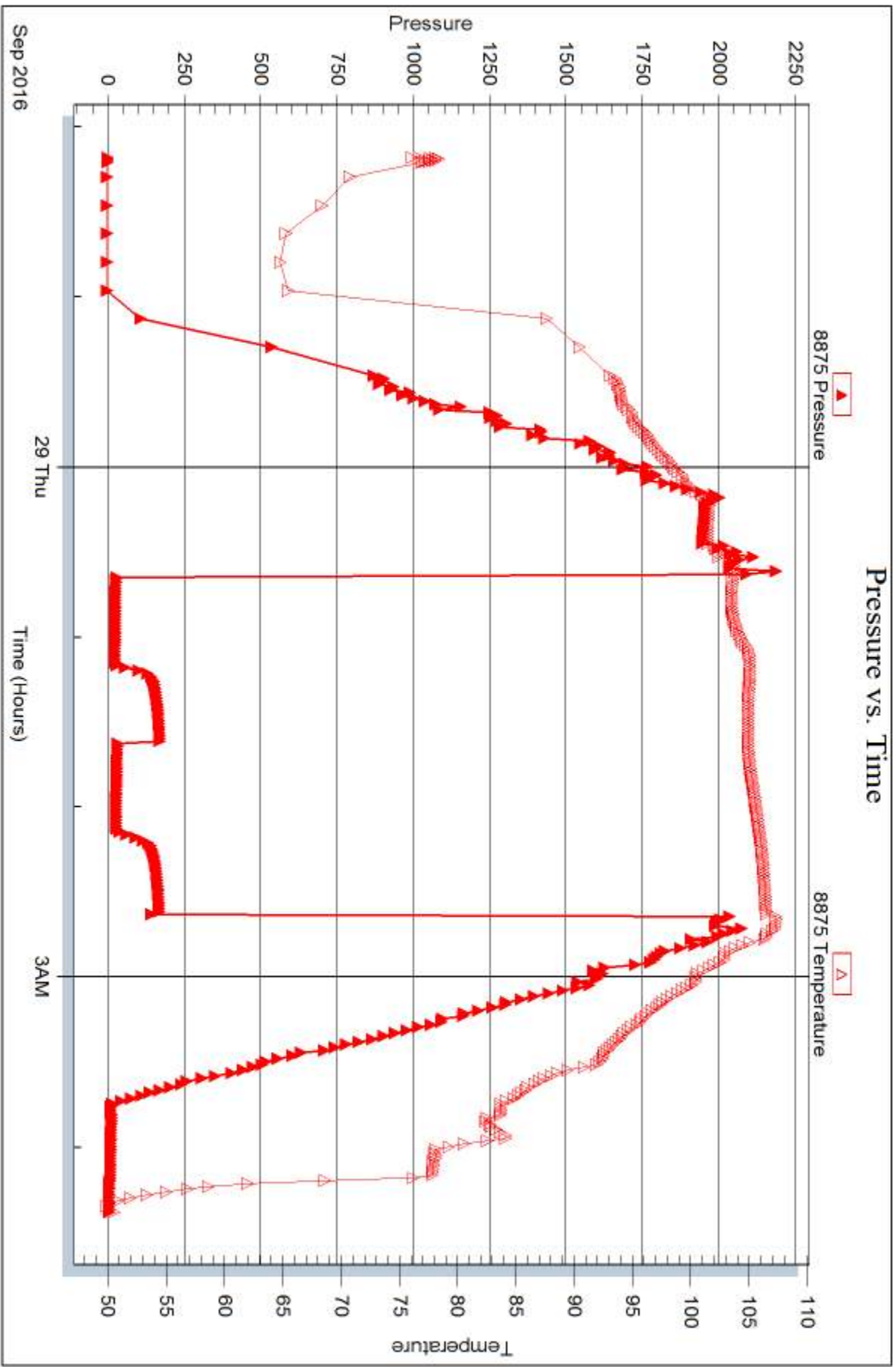
Serial #: 8875

Inside

Hartman Oil Company

Rose #5-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65516

Printed: 2016.10.03 @ 13:21:12



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Company**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206

ATTN: Chris Peters

### **Rose #5-1**

#### **1-16s-35w Wichita,KS**

Start Date: 2016.09.29 @ 22:29:11

End Date: 2016.09.30 @ 04:19:41

Job Ticket #: 65517                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.10.03 @ 13:19:24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Hartman Oil Company  
 10500 E Berkeley Sq Pkw y  
 Ste 100  
 Wichita, KS 67206  
 ATTN: Chris Peters

**1-16s-35w Wichita,KS**

**Rose #5-1**

Job Ticket: 65517

**DST#: 3**

Test Start: 2016.09.29 @ 22:29:11

## GENERAL INFORMATION:

Formation: **LKC I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:24:11  
 Time Test Ended: 04:19:41  
 Interval: **4152.00 ft (KB) To 4173.00 ft (KB) (TVD)**  
 Total Depth: 4173.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 79  
 Reference Elevations: 3088.00 ft (KB)  
 3078.00 ft (CF)  
 KB to GR/CF: 10.00 ft

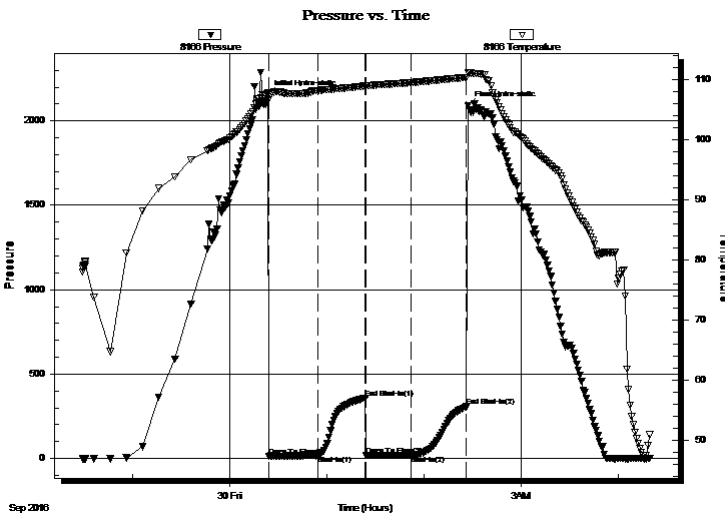
## Serial #: 8166

Outside

Press@RunDepth: 18.74 psig @ 4153.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.09.29 End Date: 2016.09.30 Last Calib.: 2016.09.30  
 Start Time: 22:29:16 End Time: 04:19:40 Time On Btm: 2016.09.30 @ 00:23:41  
 Time Off Btm: 2016.09.30 @ 02:27:11

TEST COMMENT: IF: Surface blow died in 11 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2154.79	107.76	Initial Hydro-static
1	14.73	106.63	Open To Flow (1)
31	16.34	108.15	Shut-In(1)
60	359.43	108.90	End Shut-In(1)
61	17.54	108.90	Open To Flow (2)
88	18.74	109.46	Shut-In(2)
123	307.13	110.32	End Shut-In(2)
124	2089.77	111.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
9.00	mud 100%m	0.13
1.00	free oil 100%o	0.01

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Company

**1-16s-35w Wichita,KS**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**Rose #5-1**

Job Ticket: 65517

**DST#: 3**

Test Start: 2016.09.29 @ 22:29:11

## Tool Information

Drill Pipe:	Length: 4148.00 ft	Diameter: 3.80 inches	Volume: 58.19 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4152.00 ft			Final 42000.00 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
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4133.00	
Shut In Tool	5.00			4138.00	
Hydraulic tool	5.00			4143.00	
Packer	5.00			4148.00	20.00 Bottom Of Top Packer
Packer	4.00			4152.00	
Stubb	1.00			4153.00	
Recorder	0.00	8875	Inside	4153.00	
Recorder	0.00	8166	Outside	4153.00	
Perforations	15.00			4168.00	
Bullnose	5.00			4173.00	21.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>41.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Company

**1-16s-35w Wichita,KS**

10500 E Berkeley Sq Pkwy  
Ste 100  
Wichita, KS 67206  
ATTN: Chris Peters

**Rose #5-1**

Job Ticket: 65517

**DST#: 3**

Test Start: 2016.09.29 @ 22:29:11

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.79 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 6700.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

0 deg API

Water Salinity: 0 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
9.00	mud 100%m	0.126
1.00	free oil 100%o	0.014

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

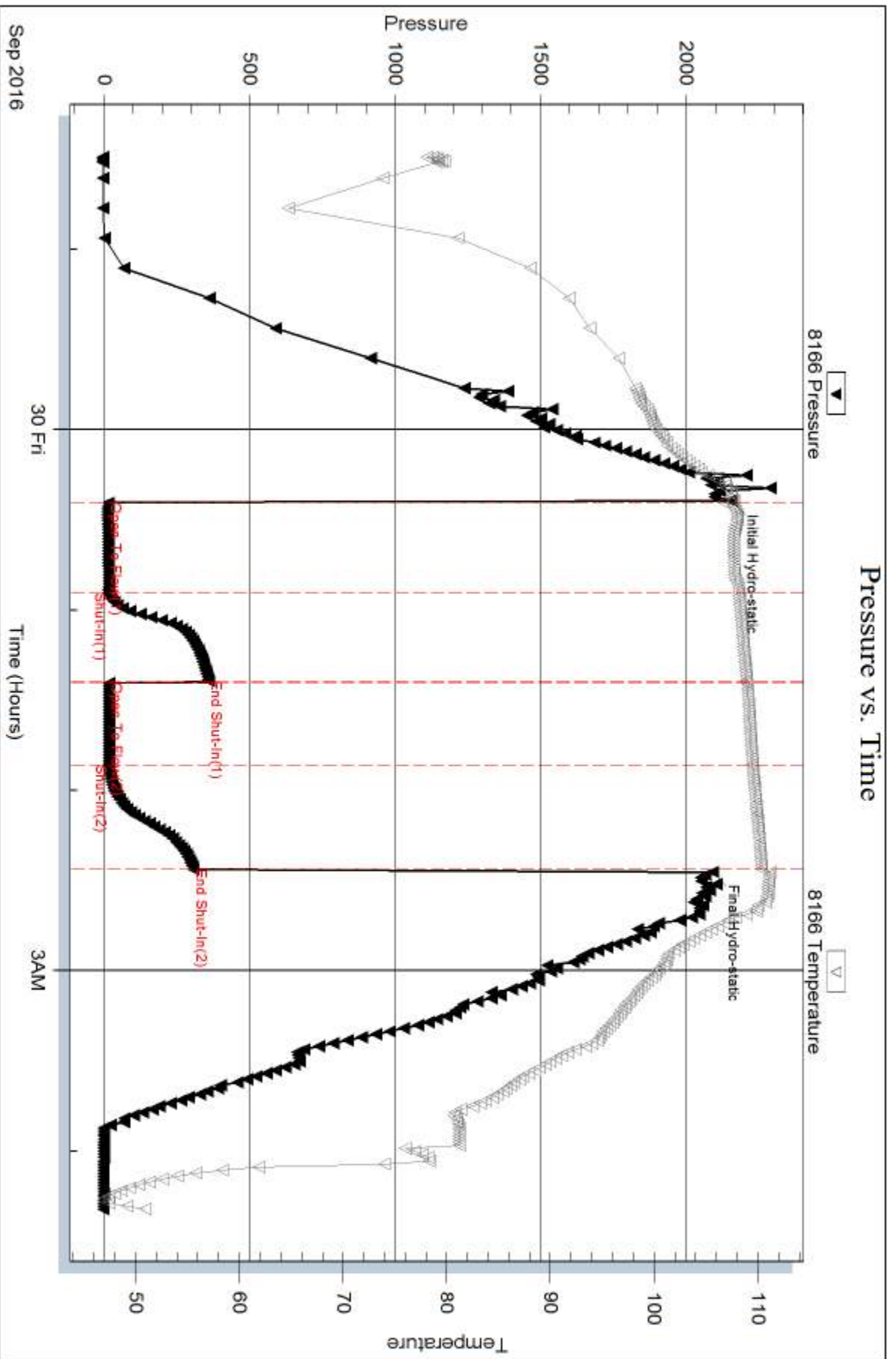
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



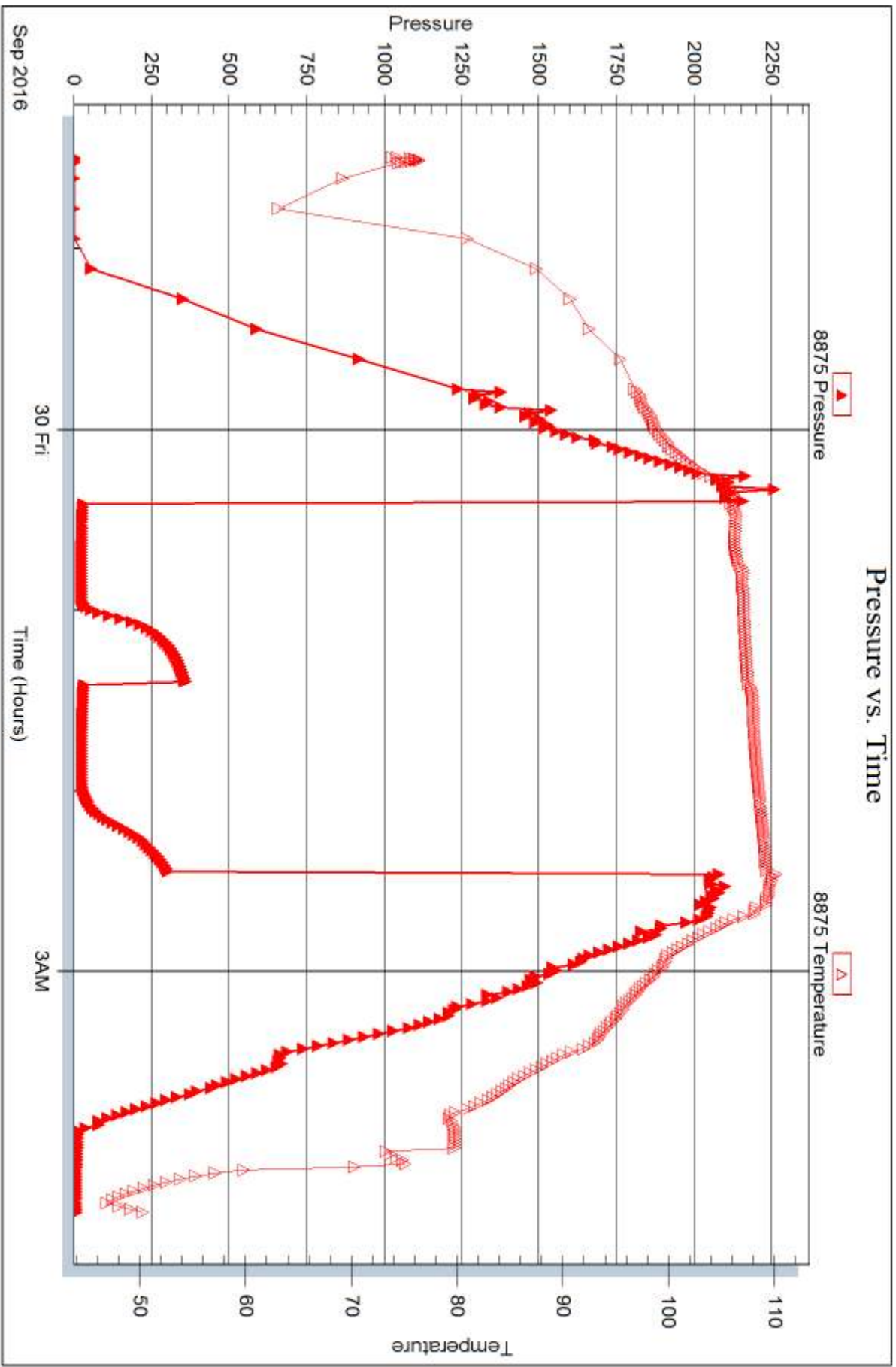
Serial #: 8875

Inside

Hartman Oil Company

Rose #5-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65517

Printed: 2016.10.03 @ 13:19:27



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65515**

Well Name & No. Rose 5-1 Test No. 1 Date 9-28-16  
 Company Hartman oil CO Elevation 3088 KB 3078 GL  
 Address 10500 E Berkeley St Rkwy Ste 100 Wichita, KS 67206  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 1 Twp. 16 Rge. 35 Co. Wichita State KS

Interval Tested 3885 3916 Zone Tested TORONTO  
 Anchor Length 31 Drill Pipe Run 3870 Mud Wt. 9.6  
 Top Packer Depth 3880 Drill Collars Run — Vis 60  
 Bottom Packer Depth 3885 Wt. Pipe Run — WL 7.2  
 Total Depth 3916 Chlorides 3000 ppm System LCM 2  
 Blow Description IF: BoB in 6 min.  
IS: No return.  
FF: BoB in 9 min.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>36</u>	<u>oil</u>	<u>100</u>			
<u>155</u>	<u>90cwm</u>	<u>10</u>	<u>20</u>	<u>20</u>	<u>50</u>
<u>186</u>	<u>90cwm</u>	<u>10</u>	<u>10</u>	<u>30</u>	<u>50</u>
<u>248</u>	<u>ocmw</u>	<u>5</u>	<u>75</u>	<u>20</u>	

Rec Total 625 BHT 112 Gravity — API RW .30 @ 58 °F Chlorides 26,000 ppm  
 (A) Initial Hydrostatic 2172  Test 1050 T-On Location 1:30  
 (B) First Initial Flow 35  Jars \_\_\_\_\_ T-Started 2:20  
 (C) First Final Flow 170  Safety Joint \_\_\_\_\_ T-Open 4:43  
 (D) Initial Shut-In 624  Circ Sub NIL T-Pulled 7:12  
 (E) Second Initial Flow 184  Hourly Standby \_\_\_\_\_ T-Out 9:31  
 (F) Second Final Flow 294  Mileage 70 - 52.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 621  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2650  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_  
 Final Flow 30  Day Standby \_\_\_\_\_  
 Final Shut-In 45  Accessibility \_\_\_\_\_  
 Sub Total 1102.50 MP/DST Disc't \_\_\_\_\_

Approved By CL QL Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65516**

Well Name & No. Rose 5-1 Test No. 2 Date 9-28-16  
 Company Hartman oil CO Elevation 3088 KB 3078 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Chris Peters Rig southwind #1  
 Location: Sec. 1 Twp. 16 Rge. 35 Co. withita State KS

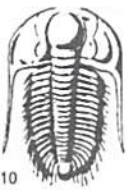
Interval Tested 3956 3978 Zone Tested Lansing L  
 Anchor Length \_\_\_\_\_ Drill Pipe Run 3961 Mud Wt. 9.7  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run \_\_\_\_\_ Vis 72  
 Bottom Packer Depth 3956 Wt. Pipe Run \_\_\_\_\_ WL 8.0  
 Total Depth 3978 Chlorides 5000 ppm System LCM 2  
 Blow Description IF: surface blow died in 8 min.  
IS: No return.  
FF: No blow.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Free oil</u>		<u>100</u>		
<u>15</u>	<u>oam</u>		<u>10</u>		<u>90</u>
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 17 BHT 108 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 2099  Test 1050 T-On Location 21:15  
 (B) First Initial Flow 13  Jars \_\_\_\_\_ T-Started 22:10  
 (C) First Final Flow 18  Safety Joint \_\_\_\_\_ T-Open 00:36  
 (D) Initial Shut-In 170  Circ Sub NIL T-Pulled 2:36  
 (E) Second Initial Flow 19  Hourly Standby \_\_\_\_\_ T-Out 4:20  
 (F) Second Final Flow 24  Mileage 70 - 52.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 168  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2032  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 1102.50  
 Total 1102.50  
 MP/DST Disc't \_\_\_\_\_

Approved By CR Our Representative [Signature]

TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65517**

Well Name & No. Rose 5-1 Test No. 3 Date 9-29-16  
 Company Hartman oil co Elevation 3088 KB 3078 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Chris Peters Rig Southwind #1  
 Location: Sec. 1 Twp. 16 Rge. 35 Co. Wichita State KS

Interval Tested 4152 4173 Zone Tested Lensing F  
 Anchor Length \_\_\_\_\_ Drill Pipe Run 4148 Mud Wt. 9.8  
 Top Packer Depth \_\_\_\_\_ Drill Collars Run \_\_\_\_\_ Vis 50  
 Bottom Packer Depth 4152 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 4173 Chlorides 6700 ppm System LCM 2

Blow Description IF: surface blow died in 11 min.  
IS: No return.  
FF: NO blow  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free oil</u>	<u>100</u>			
<u>9</u>	<u>mud</u>			<u>100</u>	
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 10 BHT 110 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2154  Test 1150 T-On Location 21:15  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 22:29  
 (C) First Final Flow 16  Safety Joint \_\_\_\_\_ T-Open 00:24  
 (D) Initial Shut-In 359  Circ Sub \_\_\_\_\_ T-Pulled 2:24  
 (E) Second Initial Flow 17  Hourly Standby \_\_\_\_\_ T-Out 4:21  
 (F) Second Final Flow 18  Mileage 70 - 52.50 + 52.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 307  Sampler \_\_\_\_\_ loaded 10/1 10:40  
 (H) Final Hydrostatic 2089  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1255  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1255

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Approved By [Signature] Our Representative [Signature]

TriLOBITE TESTING Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# QUALITY WELL SERVICE, INC.

6551

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410  
Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

Date	09-21-16 09-22-16	Sec.	01	Twp.	16	Range	36	County	Wichita	State	KS	On Location	11:00 PM	Finish	3:30 AM
Lease	Rose	Well No.	5-1			Location Maydock KS, 2nd E, 11th N, 3rd W, 3rd to									
Contractor	Southwind #1				Owner Curves w/into 1st L, 1st R, Left										
Type Job	Surface				To Quality Well Service, 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.										
Csg.	8 5/8				Depth										
Tbg. Size					Charge To Hartman oil										
Tool					Depth										
Cement Left in Csg	Approx 20				Shoe Joint										
Meas Line					Displace 22 BBl.										
EQUIPMENT											The above was done to satisfaction and supervision of owner agent or contractor.				
Pumptrk	8	No.	Mike B			Cement Amount Ordered 250sx class A + 2% gel + 3%cc									
Bulktrk	9	No.	David F			Common 250									
Bulktrk		No.				Poz. Mix									
Pickup		No.	David B			Gel. 5									
JOB SERVICES & REMARKS											Calcium 9				
Rat Hole	Hulls														
Mouse Hole	Salt														
Centralizers	Flowseal														
Baskets	Kol-Seal														
D/V or Port Collar	Mud CLR 48														
Pipe on Btm, Break Circ, Pump Spare	CFL-117 or CD110 CAF 38														
Mix 250sx, Stop, Release Plug, Start	Sand														
Disp. w/ Fresh H <sub>2</sub> O, Wash up on top of Plug, See Steady increase in PST, Slow Rate, Stop Pump at 22 BBl's total, Shut in, Cement Did Circ.	Handling 264														
											Mileage				
											FLOAT EQUIPMENT				
											Guide Shoe				
											Centralizer				
											Baskets				
											AFU Inserts				
											Float Shoe				
											Latch-Down 8 5/8 wooden Plug				
											LMV 45				
											Service Supervisor				
											Pumptrk Charge So. Face				
											Mileage 45 x 2				
											Tax				
											Discount				
											Total Charge				
Signature <i>David Roberts</i>															