

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. 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
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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				

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
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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:	
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PRESSURE PUMPING LLC  
 PO Box 884, Chanute, KS 66720  
 620-431-9210 or 800-467-8676

10221  
 10111

TICKET NUMBER 55016  
 LOCATION Oakley Ks  
 FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT  
 CEMENT

Invoice # 812662

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-12-18	3613	Ward #4 Twin	16	22S	93W	Finney
CUSTOMER						
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
Hartman Oil 10500 E. Berkley Square Parkway, St. 100 Garden City N to Park Ave 3 1/2 W 41st			731	Cory D		
CITY			566	Neil W		
STATE						
ZIP CODE						
Wichita						
KS						
67206						

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 344 CASING SIZE & WEIGHT 8 5/8 23#  
 CASING DEPTH 344 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 15.2 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 20.5 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting at top upon W/L 12 circulate casing mix 240 sks com 38 cc 28 gal  
wash up + displace with 20 1/2 bbl H<sub>2</sub>O - station 3 bbl depth

Cement  
 circulated

Thank you  
 Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	6.5	MILEAGE	7.15	464.75
CE0710	11.28	den mileage delivery	1.75	1283.10
ATV CC5871	240 sks	surface blend II	24.00	5760.00
CC5326	100 #	salt	NC	NC
			subtotal	8657.85
			-30%	2597.36
			subtotal	6060.49
			SALES TAX	308.45
			ESTIMATED TOTAL	6368.94

Flavin 3737  
 AUTHORIZATION [Signature] TITLE Tool Pusher 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.



10278  
10170

TICKET NUMBER 55084  
LOCATION Owley, KS  
FOREMAN Miles Shew

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

FIELD TICKET & TREATMENT REPORT  
CEMENT

Invoice #812714

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
3-22-18	3613	Ward 4 Twin	16	22 S	33 W	Finner	
CUSTOMER Hartman oil		Scallaford S to border 1st 4W		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS 10500 E. Berkley Square, Ste. 100				753	Trauma W		
CITY Wichita		STATE KS	ZIP CODE 67206	772/T-127	Keith C		

JOB TYPE Long String HOLE SIZE 7 7/8" HOLE DEPTH 4800' CASING SIZE & WEIGHT 8.5" 17#  
CASING DEPTH 4797' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER PC @ 2560'  
SLURRY WEIGHT 14.2 SLURRY VOL 1.4 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 34'  
DISPLACEMENT 111.5 bbls DISPLACEMENT PSI 1000/1700 MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting and Run upon W/choffing Rig #12 Float eq. unit  
Centralizer. Set 2, 3, 5, 7, 9, 11, 15, 19, 21, 23 Basket on int #52 PCW Top of 70' #52 @  
2560' Run casing circulate 1hr mix 140Sx thixobond III conc 15# Kulsred down hole  
Shut down clear pump & lines release plus dis place 111.5 bbls water w/ 1000 psi. 1.4 Plus  
did land @ 1700 psi Plus land but did not hold Pressured up to 500 psi. Shut in

305x RH

Thanks Miles & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0453	1	PUMP CHARGE	2800.00	2800.00
CE0002	60	MILEAGE	7.15	429.00
CE0710	7.99 TONS	Ton Mitaco delivery	1.75	838.95
CL5862	170 Sx	Thixobond II	26.00	4420.00
CL5326	100 #	Salt	N/C	N/C
CL10077	850 #	Viols seal	1.50	425.00
CC6175	16050 520 gal	Mud fluid	1.65	325.00
CP8254	1	5 1/2" latchload plus & assembly	400.00	400.00
CP8485	1	5 1/2" Fetal Shoe AFH	585.00	585.00
CP8554	12	5 1/2" Centralizer	81.00	972.00
CP8629	1	5 1/2" Basket	385.00	385.00
CP8776	1	5 1/2" Port Collar	2850.00	2850.00
		Subtotal		14429.95
		less 30% discount		4328.98
		Subtotal		10100.97

7.65% SALES TAX 554.88  
ESTIMATED TOTAL 10,655.85

Ravin 3737

AUTHORIZATION [Signature]

TITLE \_\_\_\_\_

DATE 03/22/18

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.



10306  
10198

TICKET NUMBER 55088  
LOCATION Oakley KS  
FOREMAN Mikes Shaw

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

FIELD TICKET & TREATMENT REPORT  
CEMENT

Invoice #812742

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
3-27-18	3613	Ward 4 Twin	16	22 S	33 W	Finney	
CUSTOMER Hartman Oil Co			Scattered St. Barbara				
MAILING ADDRESS 10500 E. Berkley Square Pkwy. Ste. 100			48 N.S.				
CITY Wichita			STATE KS				
			ZIP CODE 67206				
TRUCK #		DRIVER		TRUCK #		DRIVER	
753		Keith C					
530T-129		Travis W					

JOB TYPE Port Collar HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT 5.5" 17#  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING 2 7/8" OTHER PL @ 2560'  
 SLURRY WEIGHT 12.4 SLURRY VOL 1.9 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 14b/s DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety equipment and Rig up on well test to 1000 psi. Open tool pump 2045  
down 275 sx tube 140 returns Pump 15b/s down Annulus. Hooked back to tubing minor  
275 sx tube weight bkn III get circulation mixed another 175 sx cement did  
circulate shut down displaced 14b/s Shut tool test to 1000 psi hold released  
off Pumped 500# Cotton Seed hulls with cement

Thanks Mikes Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CF0451	1	PUMP CHARGE	1900. <sup>00</sup>	1900. <sup>00</sup>
CF0002	6.5	MILEAGE	7.15	464.75
CF0710	17.4 tons	Ton Mileage deliver	1.75	1979.25
CC5831	400 sx	Lite weight strand	17.50	7000. <sup>00</sup>
CC6075	100 #	Celloflakr / flo seal	3. <sup>00</sup>	300. <sup>00</sup>
CC6050	500 #	Cotton seed hulls	1.00	500. <sup>00</sup>
			Subtotal	12444. <sup>00</sup>
			less 30% discount	3643.20
			Subtotal	8500. <sup>80</sup>
			SALES TAX	417.69
			ESTIMATED TOTAL	8918.50

Ravin 3737

AUTHORIZATION [Signature] 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.



## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co Inc.**

10500 E. Berkeley Sq Pkwy  
STE 100  
Wichita KS 67206

ATTN: Kitt Noah

### **Ward #4 Twin**

### **16-22s-33w Finney,KS**

Start Date: 2018.03.18 @ 14:02:15

End Date: 2018.03.18 @ 20:52:00

Job Ticket #: 64440                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.21 @ 09:28:22



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co Inc.  
10500 E. Berkeley Sq Pkw y  
STE 100  
Wichita KS 67206  
ATTN: Kitt Noah

**16-22s-33w Finney,KS**

**Ward #4 Twin**

Job Ticket: 64440

**DST#: 1**

Test Start: 2018.03.18 @ 14:02:15

## GENERAL INFORMATION:

Formation: **Alt A-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:15:00

Time Test Ended: 20:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

**Interval: 4294.00 ft (KB) To 4377.00 ft (KB) (TVD)**

Reference Elevations: 2897.00 ft (KB)

Total Depth: 4377.00 ft (KB) (TVD)

2887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8647**

**Inside**

Press@RunDepth: 174.22 psig @ 4362.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.18

End Date:

2018.03.18

Last Calib.:

2018.03.18

Start Time:

14:02:15

End Time:

20:52:00

Time On Btm:

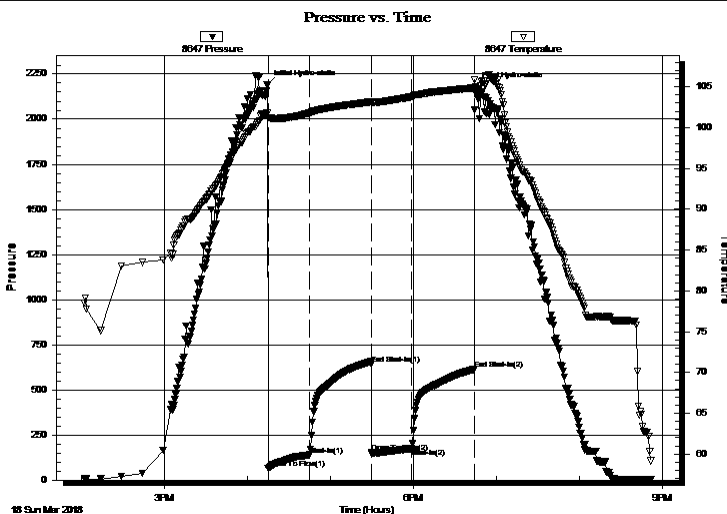
2018.03.18 @ 16:14:30

Time Off Btm:

2018.03.18 @ 18:45:00

**TEST COMMENT:** IF: Built to 14" blow (ipro) BOB in 15 min  
IS: No return blow  
FF: Built to 21" (ipro) BOB in 15 min.  
FS: Week surface blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2188.62	101.79	Initial Hydro-static
1	64.06	101.18	Open To Flow (1)
31	139.95	101.82	Shut-In(1)
75	642.32	103.15	End Shut-In(1)
76	151.90	103.02	Open To Flow (2)
105	174.22	103.77	Shut-In(2)
150	613.27	104.88	End Shut-In(2)
151	2179.08	104.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	ocm 10%o 90% m (collars(	0.69
140.00	w com 3%w 7%o 90% m	1.60
62.00	ocm 5%o 95% m	0.87
15.00	mco 30% m 70% o	0.21
15.00	free oil	0.21

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hartman Oil Co Inc.

**16-22s-33w Finney,KS**

10500 E. Berkeley Sq Pkw y  
STE 100  
Wichita KS 67206  
ATTN: Kitt Noah

**Ward #4 Twin**

Job Ticket: 64440

**DST#: 1**

Test Start: 2018.03.18 @ 14:02:15

## Tool Information

Drill Pipe:	Length: 4107.00 ft	Diameter: 3.80 inches	Volume: 57.61 bbl	Tool Weight: 1500.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4294.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4267.00	
Shut In Tool	5.00			4272.00	
Hydraulic tool	5.00			4277.00	
Jars	5.00			4282.00	
Safety Joint	3.00			4285.00	
Packer	5.00			4290.00	28.00 Bottom Of Top Packer
Packer	4.00			4294.00	
Stubb	1.00			4295.00	
Perforations	3.00			4298.00	
Change Over Sub	1.00			4299.00	
Drill Pipe	62.00			4361.00	
Change Over Sub	1.00			4362.00	
Recorder	0.00	8647	Inside	4362.00	
Recorder	0.00	8374	Outside	4362.00	
Perforations	10.00			4372.00	
Bullnose	5.00			4377.00	83.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>111.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co Inc.

**16-22s-33w Finney,KS**

10500 E. Berkeley Sq Pkw y  
STE 100  
Wichita KS 67206  
ATTN: Kitt Noah

**Ward #4 Twin**

Job Ticket: 64440

**DST#: 1**

Test Start: 2018.03.18 @ 14:02:15

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 60.00 sec/qt

Water Loss: 7.16 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

28 deg API

Water Salinity: 0 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	ocm 10%o 90%m (collars(	0.688
140.00	w com 3%w 7%o 90%m	1.599
62.00	ocm 5%o 95%m	0.870
15.00	mco 30%m 70%o	0.210
15.00	free oil	0.210

Total Length: 372.00 ft Total Volume: 3.577 bbl

Num Fluid Samples: 0

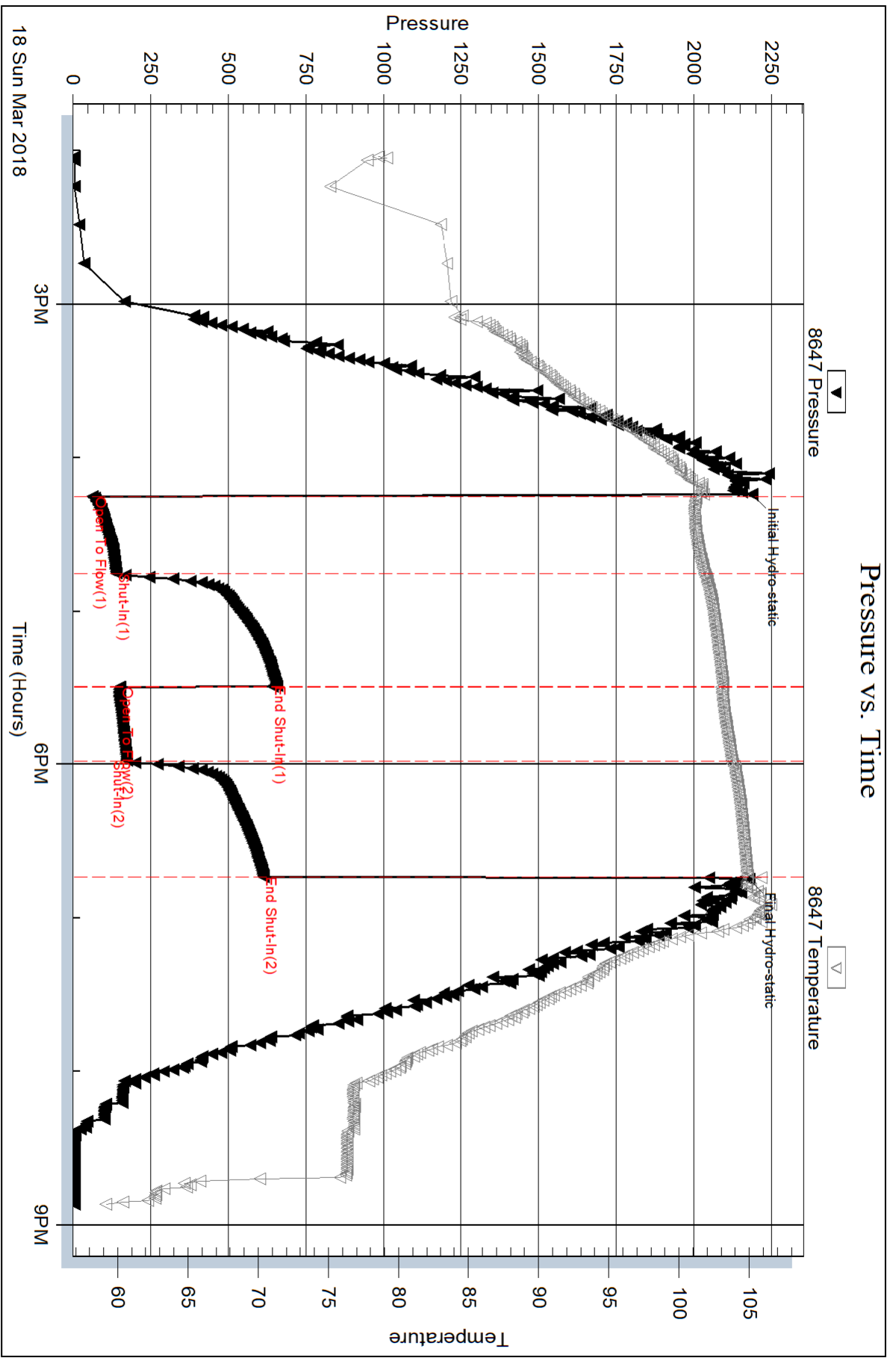
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 28@ 60 corrected to 28

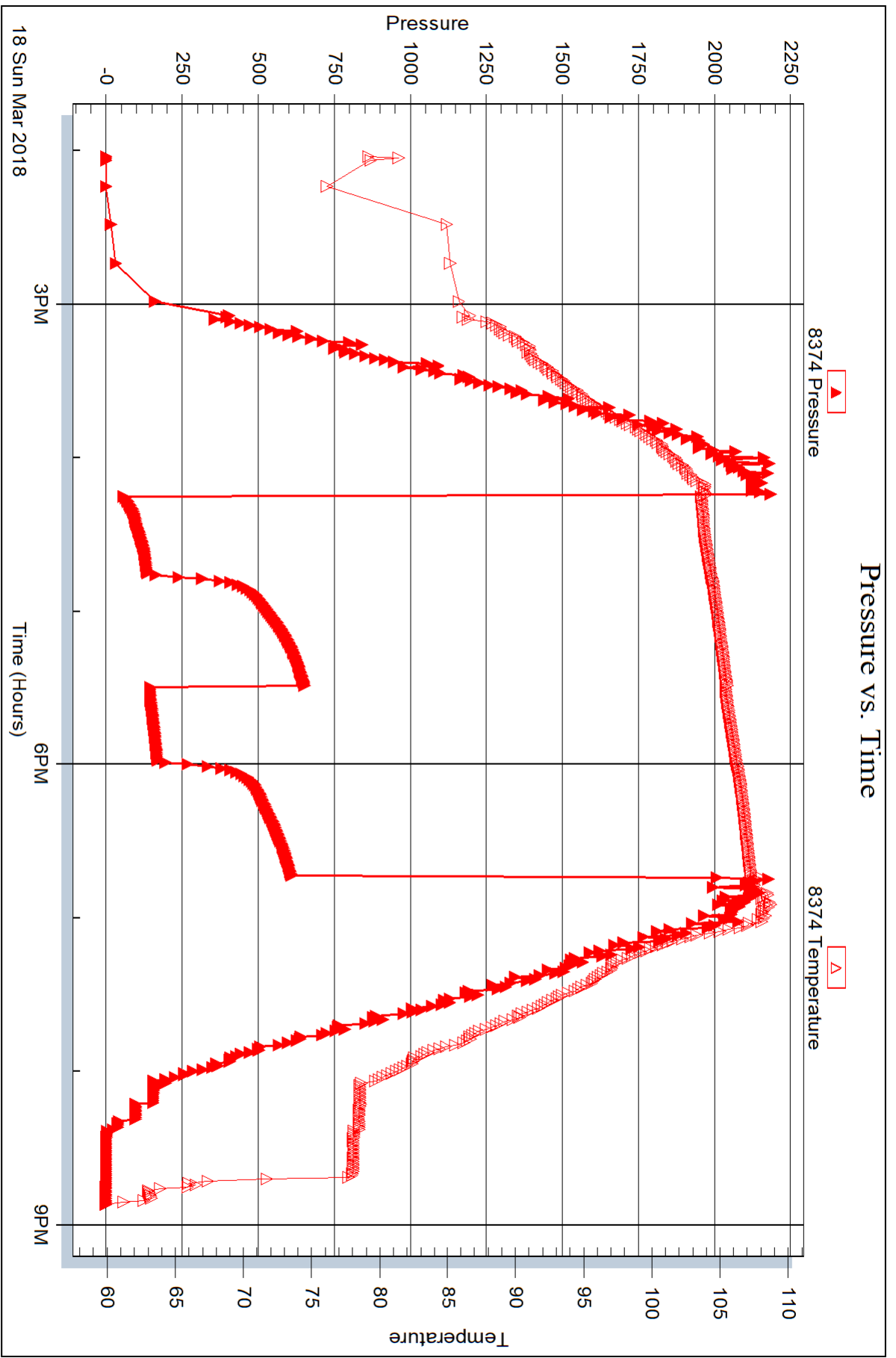


Serial #: 8374

Outside Hartman Oil Co Inc.

Ward #4 Twin

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co Inc.**

10500 E. Berkeley Sq Pkwy  
STE 100  
Wichita KS 67206

ATTN: Kitt Noah

### **Ward #4 Twin**

### **16-22s-33w Finney,KS**

Start Date: 2018.03.20 @ 12:46:15

End Date: 2018.03.20 @ 20:31:30

Job Ticket #: 64441                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.21 @ 09:27:50



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Hartman Oil Co Inc.  
 10500 E. Berkeley Sq Pkw y  
 STE 100  
 Wichita KS 67206  
 ATTN: Kitt Noah

**16-22s-33w Finney,KS**

**Ward #4 Twin**

Job Ticket: 64441

**DST#: 2**

Test Start: 2018.03.20 @ 12:46:15

## GENERAL INFORMATION:

Formation: **St.Louis**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:04:15  
 Time Test Ended: 20:31:30  
 Interval: **4678.00 ft (KB) To 4700.00 ft (KB) (TVD)**  
 Total Depth: 4700.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 81  
 Reference Elevations: 2897.00 ft (KB)  
 2887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

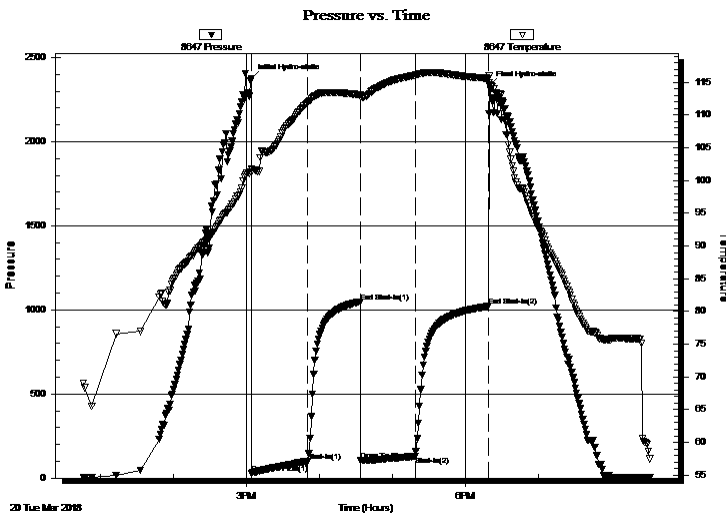
**Serial #: 8647**

**Inside**

Press@RunDepth: 129.34 psig @ 4679.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.20 End Date: 2018.03.20 Last Calib.: 2018.03.20  
 Start Time: 12:46:15 End Time: 20:31:30 Time On Btm: 2018.03.20 @ 15:04:00  
 Time Off Btm: 2018.03.20 @ 18:19:45

**TEST COMMENT:** IF:BOB in 26 min.  
 IS:Weak surface blow  
 FF:BOB in 31 min.  
 FS:No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2376.28	101.73	Initial Hydro-static
1	27.51	101.20	Open To Flow (1)
47	97.49	111.90	Shut-In(1)
90	1048.65	113.09	End Shut-In(1)
90	104.76	112.73	Open To Flow (2)
135	129.34	116.08	Shut-In(2)
195	1021.09	115.60	End Shut-In(2)
196	2331.89	114.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	mcw 10% m 90% w (collars)	1.31
70.00	ocmw 10% o 30% m 60% w (collars)	0.98
35.00	ocgw m 2% o 5% g 13% w 80% m	0.49
25.00	Free oil 100% o	0.35
0.00	GIP= 248 ft	0.00

\* 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 Co Inc.

**16-22s-33w Finney,KS**

10500 E. Berkeley Sq Pkwy  
STE 100  
Wichita KS 67206  
ATTN: Kitt Noah

**Ward #4 Twin**

Job Ticket: 64441

**DST#: 2**

Test Start: 2018.03.20 @ 12:46:15

## Tool Information

Drill Pipe:	Length: 4481.00 ft	Diameter: 3.80 inches	Volume: 62.86 bbl	Tool Weight: 1500.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4678.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 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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Change Over Sub	1.00			4651.00	
Shut In Tool	5.00			4656.00	
Hydraulic tool	5.00			4661.00	
Jars	5.00			4666.00	
Safety Joint	3.00			4669.00	
Packer	5.00			4674.00	28.00 Bottom Of Top Packer
Packer	4.00			4678.00	
Stubb	1.00			4679.00	
Recorder	0.00	8647	Inside	4679.00	
Recorder	0.00	8374	Outside	4679.00	
Perforations	16.00			4695.00	
Bullnose	5.00			4700.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 50.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hartman Oil Co Inc.

**16-22s-33w Finney,KS**

10500 E. Berkeley Sq Pkw y  
STE 100  
Wichita KS 67206  
ATTN: Kitt Noah

**Ward #4 Twin**

Job Ticket: 64441

**DST#: 2**

Test Start: 2018.03.20 @ 12:46:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

17000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	mcw 10%m 90%w (collars)	1.306
70.00	ocmw 10%o 30%m 60%w (collars)	0.982
35.00	ocgw m 2%o 5%g 13%w 80%m	0.491
25.00	Free oil 100%o	0.351
0.00	GIP= 248 ft	0.000

Total Length: 340.00 ft      Total Volume: 3.130 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

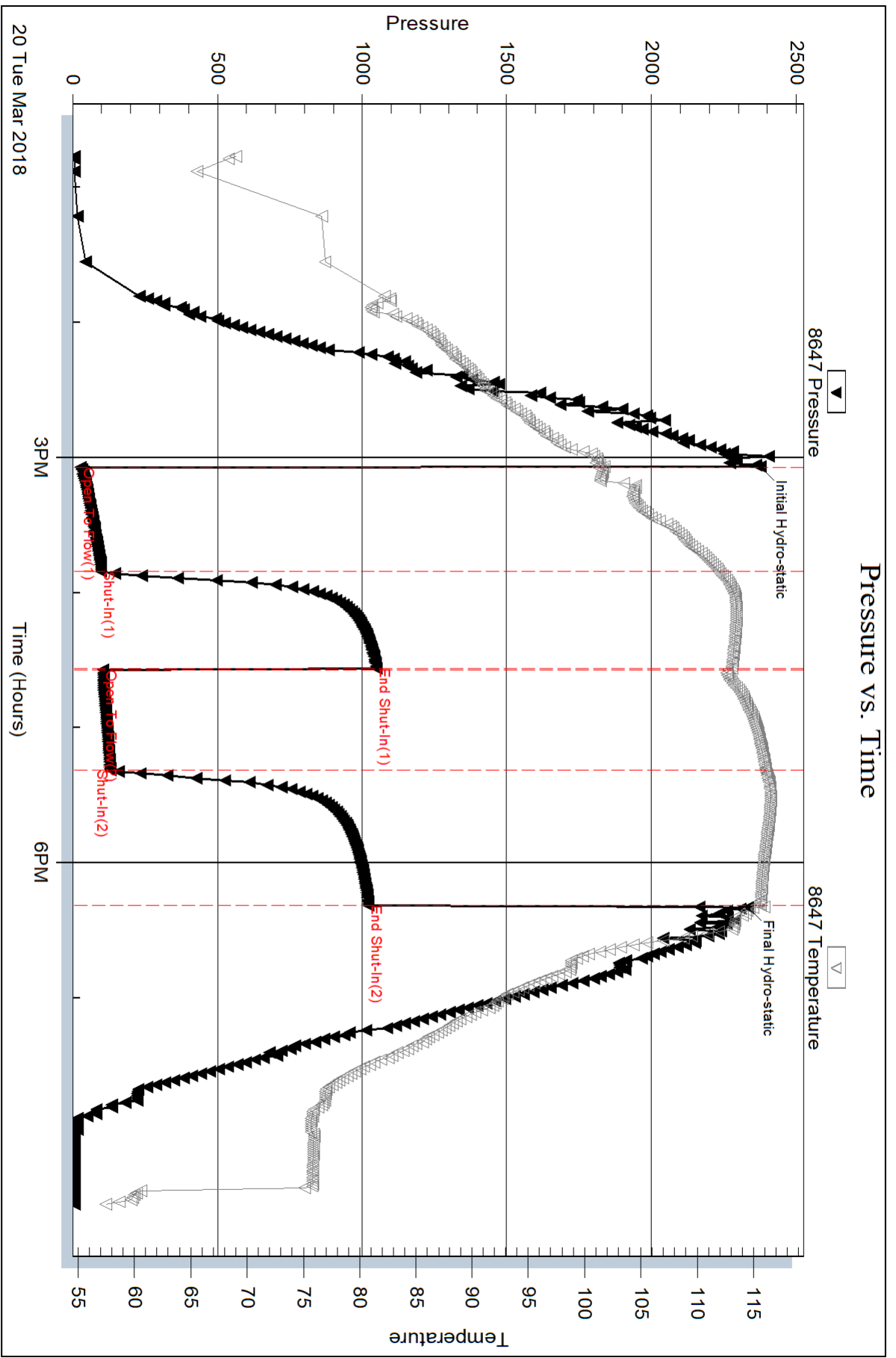
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API 31 @ 60 corrected to 31

RW= 49.8\* @ .613 = 17,000 ppm

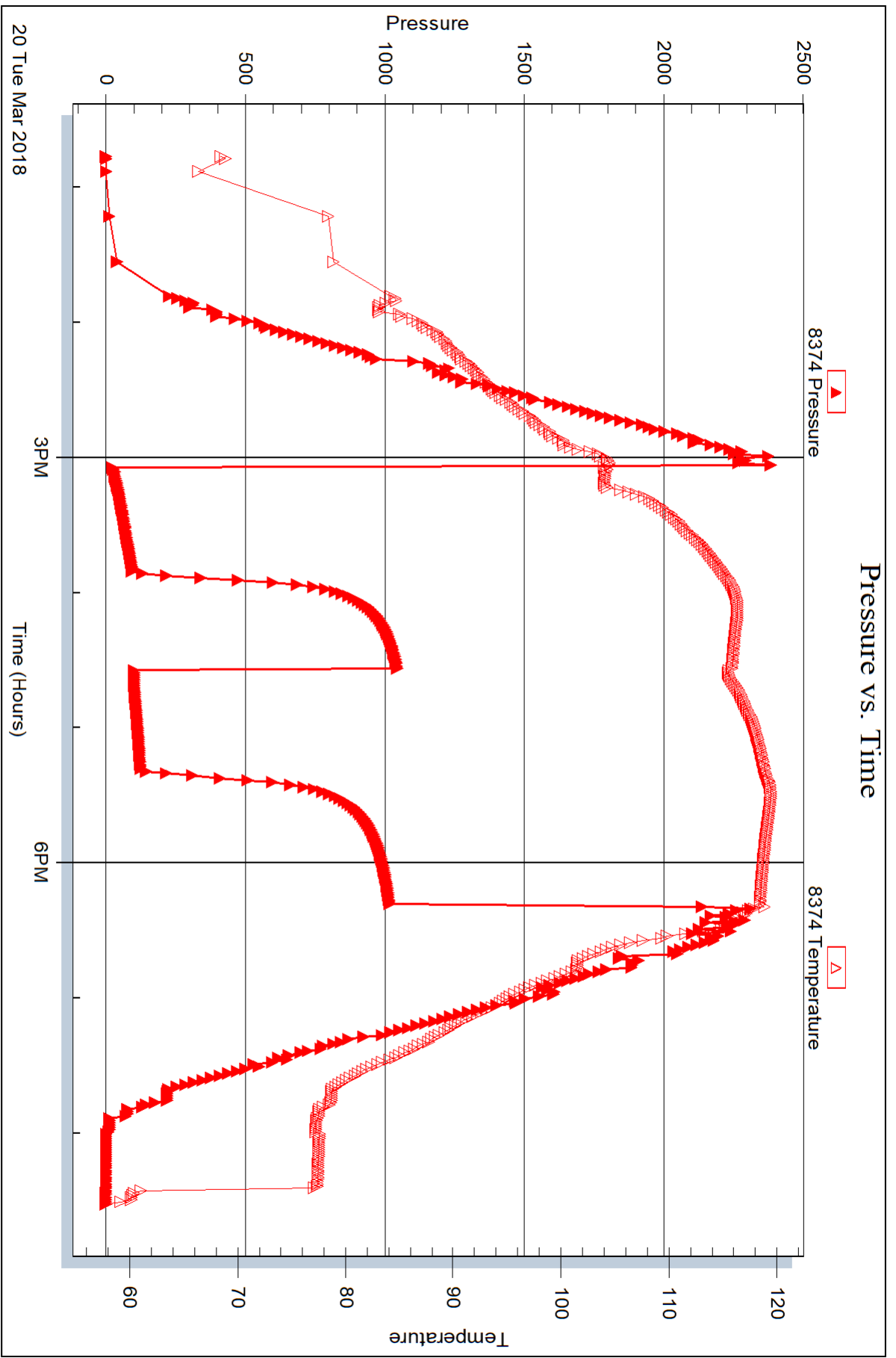


Serial #: 8374

Outside Hartman Oil Co Inc.

Ward #4 Twin

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64441

Printed: 2018.03.21 @ 09:27:51



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64440**

Well Name & No. Ward #4 Twin Test No. 1 Date 3-18-18  
 Company Hartman Oil Co. Inc Elevation 2897 KB 2887 GL  
 Address 10500 E Berkeley SQ Pkwy STE100 Wichita KS 67206  
 Co. Rep / Geo. KITT NOAH Rig WW 12  
 Location: Sec. 16 Twp. 22S Rge. 33W Co. Finney State KS

Interval Tested 4294-4377 Zone Tested Alt A-C  
 Anchor Length 83 Drill Pipe Run ~~4107~~ 4107 Mud Wt. 9.1  
 Top Packer Depth 4289 Drill Collars Run ~~180~~ 180 Vis 60  
 Bottom Packer Depth 4294 Wt. Pipe Run Ø WL 7.2  
 Total Depth 4377 Chlorides 2500 ppm System LCM 3

Blow Description IF: Built to 14" (Ipro) BOB IN 15 Min  
IS: No Return Blow  
FF: Built to 21" (Ipro) BOB IN 15 Min  
FS: ~~15~~ ~~15~~ ~~15~~ Weak Surface Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Free Oil</u>		<u>100</u>		
<u>15</u>	<u>MCO</u>	<u>70</u>		<u>30</u>	
<u>62</u>	<u>OCM</u>	<u>5</u>		<u>95</u>	
<u>140</u>	<u>WCOM</u>	<u>7</u>		<u>3</u>	<u>90</u>
<u>140</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	

Rec Total 372 BHT 105 Gravity 28 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2188  
 (B) First Initial Flow 64  
 (C) First Final Flow 139  
 (D) Initial Shut-In 642  
 (E) Second Initial Flow 151  
 (F) Second Final Flow 174  
 (G) Final Shut-In 613  
 (H) Final Hydrostatic 2179

Test 1150  
 Jars 250  
 Safety Joint 75  
 Circ Sub NC  
 Hourly Standby \_\_\_\_\_  
 Mileage 60 RT 60  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1535

T-On Location 11:55  
 T-Started 14:02  
 T-Open 16:15  
 T-Pulled 18:45  
 T-Out 20:52

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45

Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1535.00  
 MP/DST Disc't \_\_\_\_\_

Approved By Kitt Noah Our Representative Mike Roberts

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. **64441**

Well Name & No. Ward #4 Twin Test No. 2 Date 3-20-18  
 Company Hartman Oil Co. Inc. Elevation 2897 KB 2887 GL  
 Address 10500 E Berkeley SQ Pkwy STE 100 Wichita KS 67206  
 Co. Rep / Geo. KITT NOAH Rig WW12  
 Location: Sec. 16 Twp. 22S Rge. 33W Co. Finnney State KS

Interval Tested 4678-4700 Zone Tested St. Louis "B"  
 Anchor Length 22 Drill Pipe Run 4481 Mud Wt. 9.1  
 Top Packer Depth 4673 Drill Collars Run 180 Vis 54  
 Bottom Packer Depth 4678 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4700 Chlorides 2100 ppm System LCM 8

Blow Description IF: BOB 26 MIN  
IS: Weak Surface Blow  
FF: BOB 31 MIN  
FS: Weak Surface Blow

Rec	Feet of	%gas	%oil	%water	%mud
	<u>GIP = 248'</u>				
<u>25</u>	<u>Feet of Free Oil</u>		<u>100</u>		
<u>85</u>	<u>Feet of OCGWM</u>	<u>5</u>	<u>2</u>	<u>13</u>	<u>80</u>
<u>70</u>	<u>Feet of OCMW (Collars)</u>	<u>10</u>	<u>60</u>	<u>30</u>	
<u>210</u>	<u>Feet of MCW (Collars)</u>		<u>90</u>	<u>10</u>	
<u>Rec Total 340</u>	<u>BHT 115</u>	<u>Gravity 31</u>	<u>API RW 1613 @ 49.8° F</u>	<u>Chlorides 17000 ppm</u>	

(A) Initial Hydrostatic 2376  
 (B) First Initial Flow 27  
 (C) First Final Flow 97  
 (D) Initial Shut-In 1048  
 (E) Second Initial Flow 104  
 (F) Second Final Flow 129  
 (G) Final Shut-In 1021  
 (H) Final Hydrostatic 2331

Test 1150  
 Jars 250  
 Safety Joint 75  
 Circ Sub NC  
 Hourly Standby \_\_\_\_\_  
 Mileage 60 RT 60  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby 1.5d 3.5h  
 Accessibility \_\_\_\_\_  
 Sub Total 1535

T-On Location 12:15  
 T-Started 12:46  
 T-Open 14:45  
 T-Pulled 18:00  
 T-Out 20:31  
 Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 116.67  
 Total 1535+116.67  
 MP/DST Disc't \_\_\_\_\_

Initial Open 30 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 60

Approved By [Signature]

Our Representative [Signature]



# STATE OF KANSAS

CORPORATION COMMISSION  
CONSERVATION DIVISION  
266 N. MAIN ST., STE. 220  
WICHITA, KS 67202-1513



PHONE: 316-337-6200  
FAX: 316-337-6211  
<http://kcc.ks.gov/>

GOVERNOR JEFF COLYER, M.D.

SHARI FEIST ALBRECHT, CHAIR | JAY SCOTT EMLER, COMMISSIONER | DWIGHT D. KEEN, COMMISSIONER

July 12, 2018

Chris Peters  
Hartman Oil Co., Inc.  
10500 E BERKELEY SQ PKWY STE 100  
WICHITA, KS 67206

Re: ACO-1  
API 15-055-22481-00-00  
WARD 4 TWIN  
SE/4 Sec.16-22S-33W  
Finney County, Kansas

Dear Chris Peters:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 3/12/2018 and the ACO-1 was received on July 11, 2018 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department