

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1251344
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: _____

1251344

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
--	---

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Schmidt-Vap 3-26
Doc ID	1251344

All Electric Logs Run

DIL
DUCP
MEL
BHCS



*acct
Prod-MG*

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 148974
Invoice Date: Mar 18, 2015
Page: 1

Voice: (817) 546-7282
Fax: (817) 246-3361

Federal Tax I.D.#: 20-8651475

Bill To:
Murfin Drig. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Customer ID	Field Ticket #	Payment Terms	
Murfin	64669	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Mar 18, 2015	4/17/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Schmidt Vap #3-26		
200.00	CEMENT MATERIALS	Class A Common	17.90	3,580.00
564.00	CEMENT MATERIALS	Chloride	1.10	620.40
210.00	CEMENT SERVICE	Cubic Feet Charge	2.48	520.80
484.00	CEMENT SERVICE	Ton Mileage Charge	2.75	1,331.00
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	LaRene Wentz		
1.00	EQUIPMENT OPERATOR	Darren Racette		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		

Subtotal	8,444.45
Sales Tax	331.83
Total Invoice Amount	8,776.28
Payment/Credit Applied	
TOTAL	8,776.28

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 3,800.00 *OK*

ONLY IF PAID ON OR BEFORE
Apr 17, 2015

OK
MR
- 3800.00
4976.28



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

*acct
Prod-MG*

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484.00	CEMENT SERVICE	Ton Mileage Charge	2.75	1,331.00
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30 DAYS FOLLOWING DATE OF
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THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 3,800.00 *OK*

ONLY IF PAID ON OR BEFORE
Apr 17, 2015

OK
MR
- 3800.00
4976.28

ALLIED OIL & GAS SERVICES, LLC 064669

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Dakota

DATE <u>3-18-15</u>	SEC. <u>26</u>	TWP. <u>4</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION <u>3:20 pm</u>	JOB START <u>5:00 pm</u>	JOB FINISH <u>8:30 pm</u>
LEASE <u>Scamett</u>	WELL # <u>3-26</u>	LOCATION <u>Rexford. N to P 1W, 2N,</u>			COUNTY <u>Randall</u>	STATE <u>TX</u>	
OLD OR NEW (Circle one)		<u>6.2W, 6N, 1E, 1/2 S, ESES int</u>					

CONTRACTOR Martin OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 219' CEMENT AMOUNT ORDERED 200 SF con 390 CR

CASING SIZE 8 7/8 DEPTH 219.87'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PREL. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 13'

PERFS.

DISPLACEMENT 13.11 661

EQUIPMENT

PUMP TRUCK CEMENTER <u>Lakone Edwards</u>	COMMON <u>200 SF @ 19.90</u> <u>3980.00</u>
# <u>431</u> HELPER <u>Darren Racette</u>	POZMIX @
BULK TRUCK	GEL @
# <u>818/287</u> DRIVER <u>Wayne McBigby</u>	CHLORIDE <u>564# @ 1.10</u> <u>620.40</u>
BULK TRUCK	ASC @
#	DRIVER
	MATERIAL TOTAL @ <u>4,200.40</u>
	(<u>1890.18/95</u>)
	HANDLING <u>210 SF @ 2.90</u> <u>609.00</u>
	MILEAGE <u>7.68 hr X 50 X 2.25</u> <u>133.50</u>

REMARKS:
Mix 200 SF cement
Displace with water
Cement did circulate
10661 to pit

CHARGE TO: Martin
STREET _____
CITY _____ STATE _____ ZIP _____

TOTAL: _____

SERVICE

DEPTH OF JOB 219.87'
PUMP TRUCK CHARGE 1512.25
EXTRA FOOTAGE @
MILEAGE MFLW 50 @ 7.70 385.00
MANIFOLD 5 days @ 89.00
MFLW 50 @ 4.40 220.00

(1909.82/45) TOTAL 4,244.05

PLUG & FLOAT EQUIPMENT

TOTAL _____

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Fred W. Martin
SIGNATURE [Signature]

SALES TAX (if Any) _____
TOTAL CHARGES 8,444.45
DISCOUNT 3,800.00 (45%) IF PAID IN 30 DAYS
4,644.44 Net.



CONSOLIDATED
Oil Well Services, LLC

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#

803758

Invoice Date: 03/26/15

Terms: C.O.D.

Page 1

MURFIN DRILLING

P.O. BOX 288
RUSSELL KS 67665
USA

USED FOR IC 103

APPROVED JY FH R

SCHMIDT VAP #3-26

Tax: 962.55

Total: 21,208.10

BARTLESVILLE, OK
918/338-0808

EL DORADO, KS
316/322-7022

EUREKA, KS
620/583-7554

PONCA CITY, OK
580/762-2303

OAKLEY, KS
785/672-8822

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

GILLETTE, WY
307/686-4914

CUSHING, OK
918/225-2650

TERMS

In consideration of the prices to be charged for Consolidated Oil Well Services, LLC (COWS) services, equipment and products and for the performance of services and supplying of materials, Customer agrees to the following terms and conditions.

Terms. Cash in advance unless satisfactory credit is established. On credit sales, invoices are payable within 30 days of the invoice date. On all invoices not paid within 30 days, Customer agrees to pay COWS interest at the rate of 18% per annum or the maximum rate allowed by law, whichever is higher. In the event COWS retains an attorney to pursue collection of any account, Customer agrees to pay all collection costs and attorney's fees incurred by COWS.

Any applicable federal, state or local sales, use occupation, consumer's or emergency taxes shall be added to the quoted price. All process license fees required to be paid to others will be added to the scheduled prices.

All COWS' prices are subject to change without notice.

SERVICE CONDITIONS

Customer warrants that the well is in proper condition to receive the services, equipment, products and materials to be supplied by COWS. The Customer shall at all time have complete care, custody, and control of the well, the drilling and production equipment at the well, and the premises about the well. A responsible representative of the Customer shall be present to specify depths, pressures, or materials used for any service which is to be performed.

(a) COWS shall not be responsible for any claim, cause of action or demand (hereinafter referred to as a 'claim') for damage to property, or injury to or death of employees and representatives, of Customer or the well owner (if different from Customer), unless such damage, injury or death is caused by the willful misconduct or gross negligence of COWS, including but not limited to sub-surface damage and surface damage arising from sub-surface damage.

(b) Unless a claim is the result of the sole willful misconduct or gross negligence of COWS, Customer shall be responsible for and indemnify and hold COWS harmless from any claim for: (1) reservoir loss or damage, or property damage resulting from sub-surface pressure, losing control of the well and/or a well blowout; (2) damages as a result of a subsurface trespass, or an action in the nature thereof, arising from a service operation performed by COWS; (3) injury to or death of persons, other than employees of COWS, or damage to property (including, but not limited to, injury to the well), or any damages whatsoever, irrespective of cause, growing out of or in any way connected with the use of radioactive material in the well hole; and (4) well damage or reservoir damage caused by (i) loss of circulation, cement invasion, cement misplacement, pumping cement or cement plugs on wells with loss of circulation, including the failure to displace plug to proper depth, (ii) sub-surface pressure and resulting failure to complete pumping of cement or cement plug, including dehydration of cement slurry or flashing, plugged float shoe, annulus bridging or plugging, or (iii) down hole tools being lost or left in the well, or becoming stuck in the well for any reason and by any cause. COWS may furnish down hole tools and may supply supervision for the running and placement of such tools but will not be liable for any damage, loss or result caused by the use of such tools.

Furthermore, Customer will be responsible for the cost to replace such tools if they are lost or left in the well.

(c) COWS makes no guarantee of the effectiveness of any COWS' products, supplies or materials, or the results of any COWS' treatment or services.

(d) Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, COWS is unable to guarantee the accuracy of any chart interpretation, research, analysis, job recommendation or other data furnished by COWS. COWS' personnel will use their best efforts in gathering such information and their best judgement in interpreting it, but Customer agrees that COWS shall not be responsible for any damage arising from the use of such information except where due to COWS' gross negligence or willful misconduct in the preparation or furnishing of it.

(e) COWS may buy and re-sell to Customer down hole equipment, including but not limited to float equipment, DV tools, port collars, type A & B packers, and Customer agrees that COWS is not an agent or dealer for the companies who manufacture such items, and further agrees that Customer shall be solely responsible for and indemnify COWS against any claim with regard to the effectiveness, malfunction of, or functionality of such items.

WARRANTIES - LIMITATION OF LIABILITY

COWS warrants title to the products, supplies and materials, and that the same are free from defects in workmanship and materials. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, NOR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. COWS's liability and Customer's exclusive remedy in any claim (whether in contract, tort, breach of warranty or otherwise,) arising out of the sale or use of any COWS' products, supplies, materials or services is expressly limited to the replacement of such products, supplies, materials or services or their return to COWS or, at COWS' option, an allowance to Customer of credit for the cost of such items.

Customer waives and releases all claims against COWS for any special, incidental, indirect, consequential or punitive damages.

Schmidt-Vap #3-26
 330' FSL 1980' FWL
 Sec. 26-4S-31W
 2899' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	2633	+266	+12	2635	+264	+10
B/Anhydrite	2669	+230	+7	2670	+229	+6
Topeka	3701	-802	+7	3702	-803	+6
Heebner	3867	-968	+6	3866	-967	+7
Lansing	3917	-1018	+8	3918	-1019	+7
Stark	4084	-1185	+8	4082	-1183	+10
BKC	4130	-1231	+9	4128	-1229	+11
Pawnee	4244	-1345	+11	4240	-1341	+15
Cherokee	4330	-1431	+10	4330	-1431	+10
Mississippi	4457	-1558	+1	NR		
RTD	4465	-1566				
LTD				4466		



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., Inc.**

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Schmidt-Vap #3-26

26-4s-31w Rawlins,KS

Start Date: 2015.03.21 @ 01:42:00

End Date: 2015.03.21 @ 11:55:30

Job Ticket #: 62259 DST #: 1

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

Printed: 2015.03.25 @ 09:38:48

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

Schmidt-Vap #3-26

DST # 1

Toronto - LKC "B"

2015.03.21



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62259

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 01:42:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "B"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:00:30
 Time Test Ended: 11:55:30
 Interval: **3865.00 ft (KB) To 3953.00 ft (KB) (TVD)**
 Total Depth: 3953.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 57
 Reference Elevations: 2899.00 ft (KB)
 2894.00 ft (CF)
 KB to GR/CF: 5.00 ft

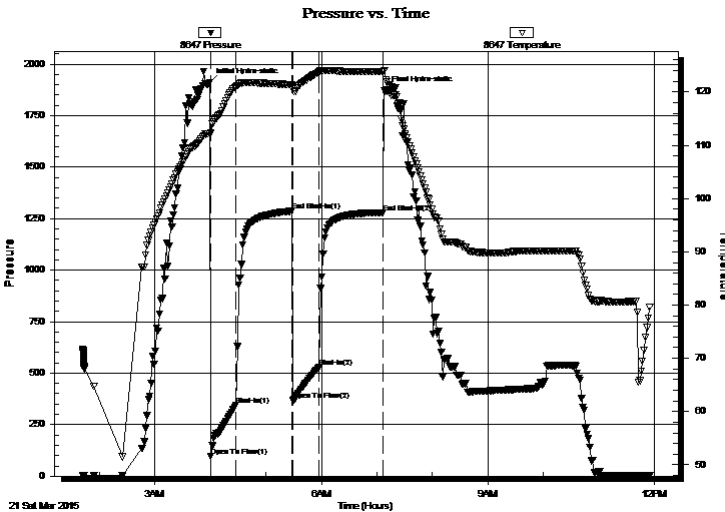
Serial #: 8647

Inside

Press@RunDepth: 530.34 psig @ 3866.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.03.21 End Date: 2015.03.21 Last Calib.: 2015.03.21
 Start Time: 01:42:01 End Time: 11:55:30 Time On Btm: 2015.03.21 @ 03:59:00
 Time Off Btm: 2015.03.21 @ 07:08:00

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 3 1/2 min.
 60 - ISI - Return built to B.o.B in 27 min
 30 - FF - Blow built to B.o.B in 3 1/2 min.
 60 - FSI - Return built to B.o.B in 26 1/2 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1909.17	112.23	Initial Hydro-static
2	95.32	112.27	Open To Flow (1)
29	345.04	120.91	Shut-In(1)
89	1286.73	121.38	End Shut-In(1)
90	366.31	120.89	Open To Flow (2)
119	530.34	123.76	Shut-In(2)
188	1277.29	123.77	End Shut-In(2)
189	1869.18	123.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
258.00	MCO 60%o, 40%m	1.36
1124.00	GO 70%o, 30%g	15.77
0.00	1116'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62259

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 01:42:00

Tool Information

Drill Pipe:	Length: 3612.00 ft	Diameter: 3.80 inches	Volume: 50.67 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.50 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.50 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3865.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	116.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3842.00	
Hydraulic tool	5.00			3847.00	
Jars	5.00			3852.00	
Safety Joint	3.00			3855.00	
Packer	5.00			3860.00	28.00 Bottom Of Top Packer
Packer	5.00			3865.00	
Stubb	1.00			3866.00	
Recorder	0.00	8647	Inside	3866.00	
Recorder	0.00	8372	Outside	3866.00	
Perforations	18.00			3884.00	
Change Over Sub	1.00			3885.00	
Drill Pipe	64.00			3949.00	
Change Over Sub	1.00			3950.00	
Bullnose	3.00			3953.00	88.00 Bottom Packers & Anchor

Total Tool Length: 116.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62259

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 01:42:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
258.00	MCO 60%o, 40%m	1.355
1124.00	GO 70%o, 30%g	15.767
0.00	1116'	0.000

Total Length: 1382.00 ft Total Volume: 17.122 bbl

Num Fluid Samples: 0

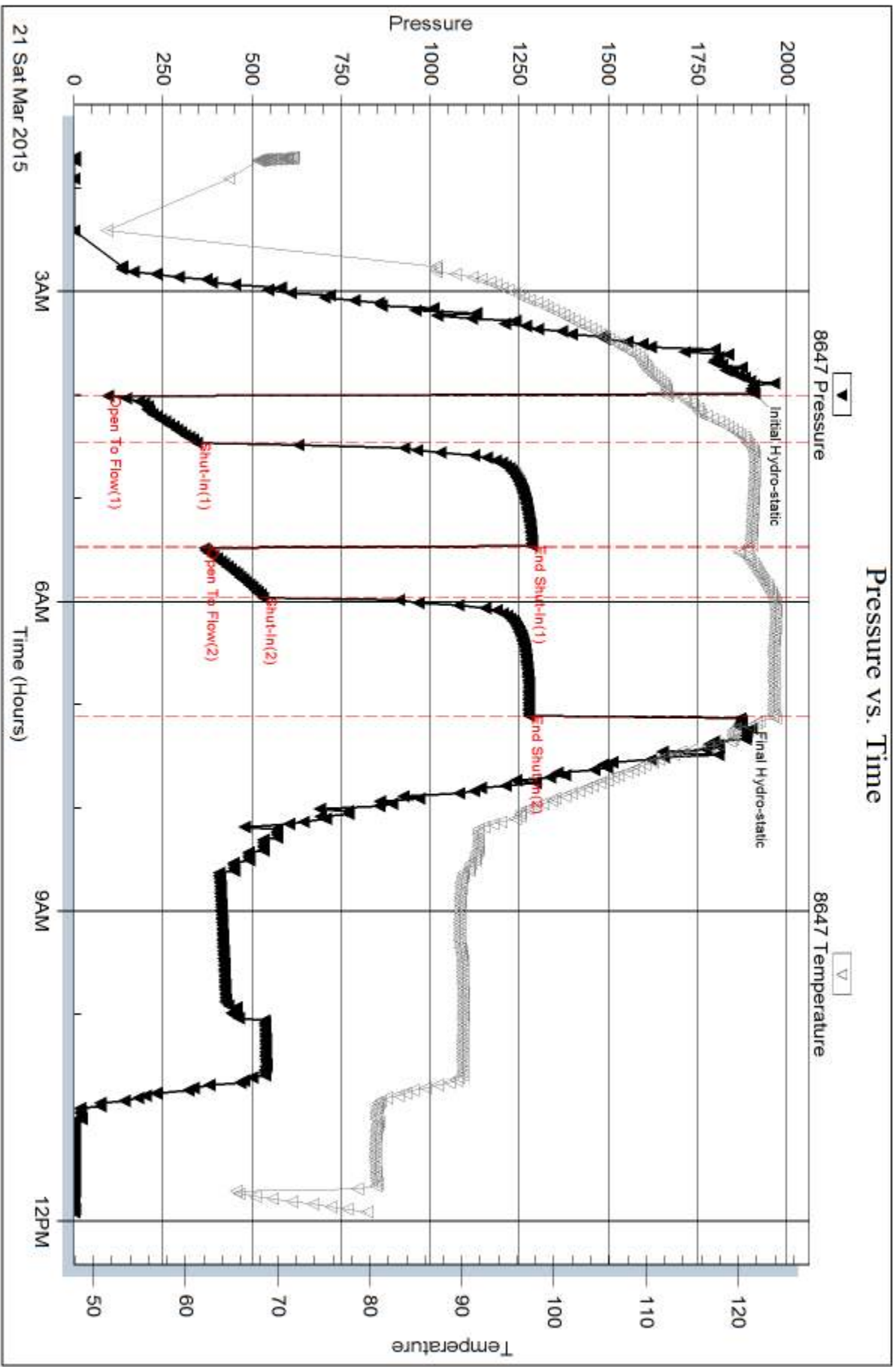
Num Gas Bombs: 0

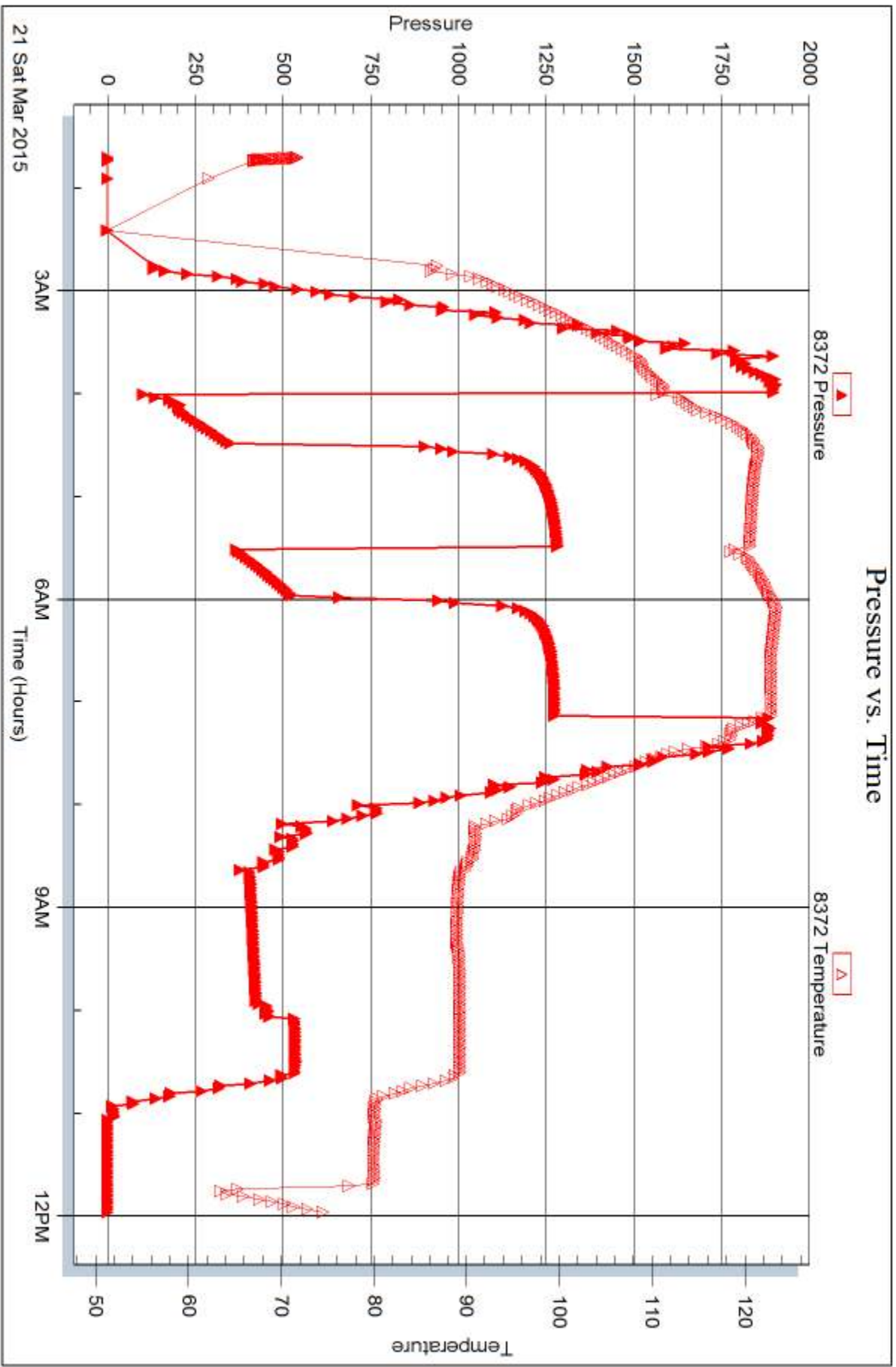
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 30 @ 58 Corrected = 30







DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., Inc.**

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Schmidt-Vap #3-26

26-4s-31w Rawlins,KS

Start Date: 2015.03.21 @ 22:22:00

End Date: 2015.03.22 @ 07:09:00

Job Ticket #: 62260 DST #: 2

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

Printed: 2015.03.25 @ 09:38:27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62260

DST#: 2

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 22:22:00

GENERAL INFORMATION:

Formation: **LKC "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:36:00

Time Test Ended: 07:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 57

Interval: 3967.00 ft (KB) To 4020.00 ft (KB) (TVD)

Reference Elevations: 2899.00 ft (KB)

Total Depth: 4020.00 ft (KB) (TVD)

2894.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 208.77 psig @ 3968.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.03.21

End Date:

2015.03.22

Last Calib.:

2015.03.22

Start Time: 22:22:01

End Time:

07:09:00

Time On Btm:

2015.03.22 @ 00:33:00

Time Off Btm:

2015.03.22 @ 04:37:30

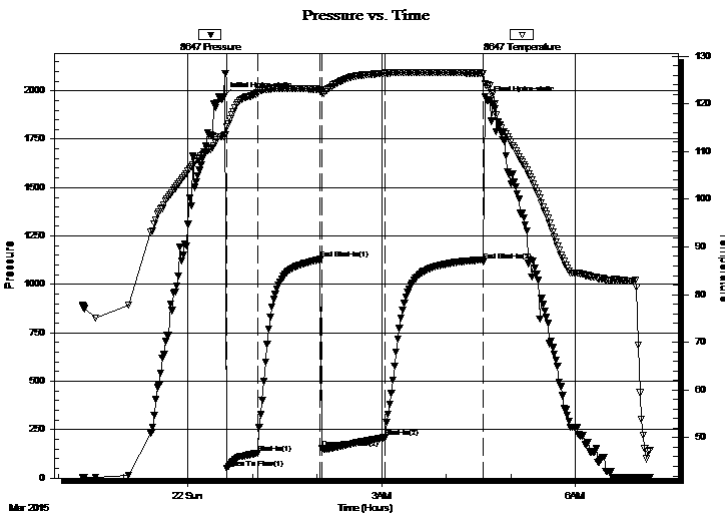
TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 6 min.

60 - ISI - Return built to 9", died back to 6"

60 - FF - Blow built to B.o.B in 13 min.

90 - FSI - Blow built to 2", died back to nothing

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1968.58	113.21	Initial Hydro-static
3	50.64	115.09	Open To Flow (1)
32	129.01	122.24	Shut-In(1)
90	1129.92	123.03	End Shut-In(1)
92	152.00	122.23	Open To Flow (2)
150	208.77	126.36	Shut-In(2)
242	1119.63	126.38	End Shut-In(2)
245	1951.17	123.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GMCO 40%g,30%o,30%m	0.91
321.00	GO 68%o, 32%m	3.92
0.00	1008' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.
250 N. Water, Ste 300
Wichita, KS 67202
ATTN: Rocky Milford

26-4s-31w Rawlins,KS

Schmidt-Vap #3-26

Job Ticket: 62260

DST#: 2

Test Start: 2015.03.21 @ 22:22:00

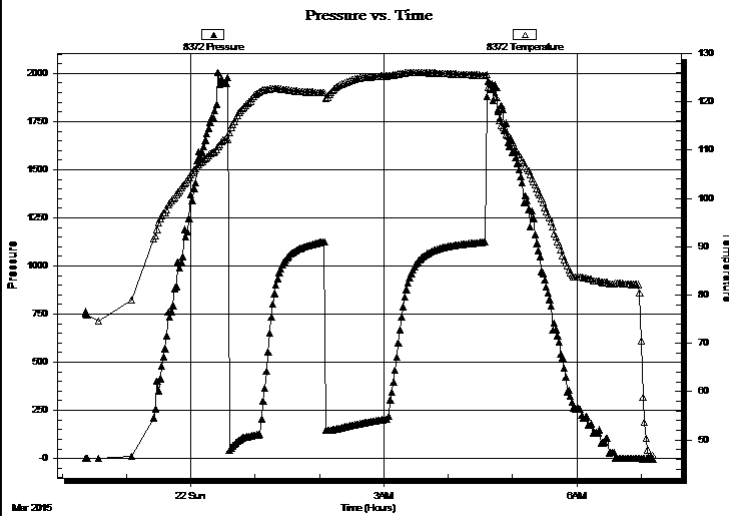
GENERAL INFORMATION:

Formation: LKC "E-G"			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 00:36:00		Tester: Brandon Quintana	
Time Test Ended: 07:09:00		Unit No: 57	
Interval: 3967.00 ft (KB) To 4020.00 ft (KB) (TVD)		Reference Elevations: 2899.00 ft (KB)	
Total Depth: 4020.00 ft (KB) (TVD)		2894.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft	

Serial #: 8372 **Outside**

Press@RunDepth: psig @	3968.00 ft (KB)	Capacity:	8000.00 psig
Start Date: 2015.03.21	End Date: 2015.03.22	Last Calib.:	2015.03.22
Start Time: 22:22:01	End Time: 07:11:00	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 6 min.
60 - ISI - Return built to 9", died back to 6"
60 - FF - Blow built to B.o.B in 13 min.
90 - FSI - Blow built to 2", died back to nothing



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GMCO 40%g,30%o,30%m	0.91
321.00	GO 68%o, 32%m	3.92
0.00	1008' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62260

DST#: 2

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 22:22:00

Tool Information

Drill Pipe:	Length: 3707.00 ft	Diameter: 3.80 inches	Volume: 52.00 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.50 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.50 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3967.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3944.00	
Hydraulic tool	5.00			3949.00	
Jars	5.00			3954.00	
Safety Joint	3.00			3957.00	
Packer	5.00			3962.00	28.00 Bottom Of Top Packer
Packer	5.00			3967.00	
Stubb	1.00			3968.00	
Recorder	0.00	8647	Inside	3968.00	
Recorder	0.00	8372	Outside	3968.00	
Perforations	15.00			3983.00	
Change Over Sub	1.00			3984.00	
Drill Pipe	32.00			4016.00	
Change Over Sub	1.00			4017.00	
Bullnose	3.00			4020.00	53.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62260

DST#: 2

ATTN: Rocky Milford

Test Start: 2015.03.21 @ 22:22:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	GMCO 40%g,30%o,30%m	0.910
321.00	GO 68%o, 32%m	3.924
0.00	1008' GIP	0.000

Total Length: 506.00 ft Total Volume: 4.834 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

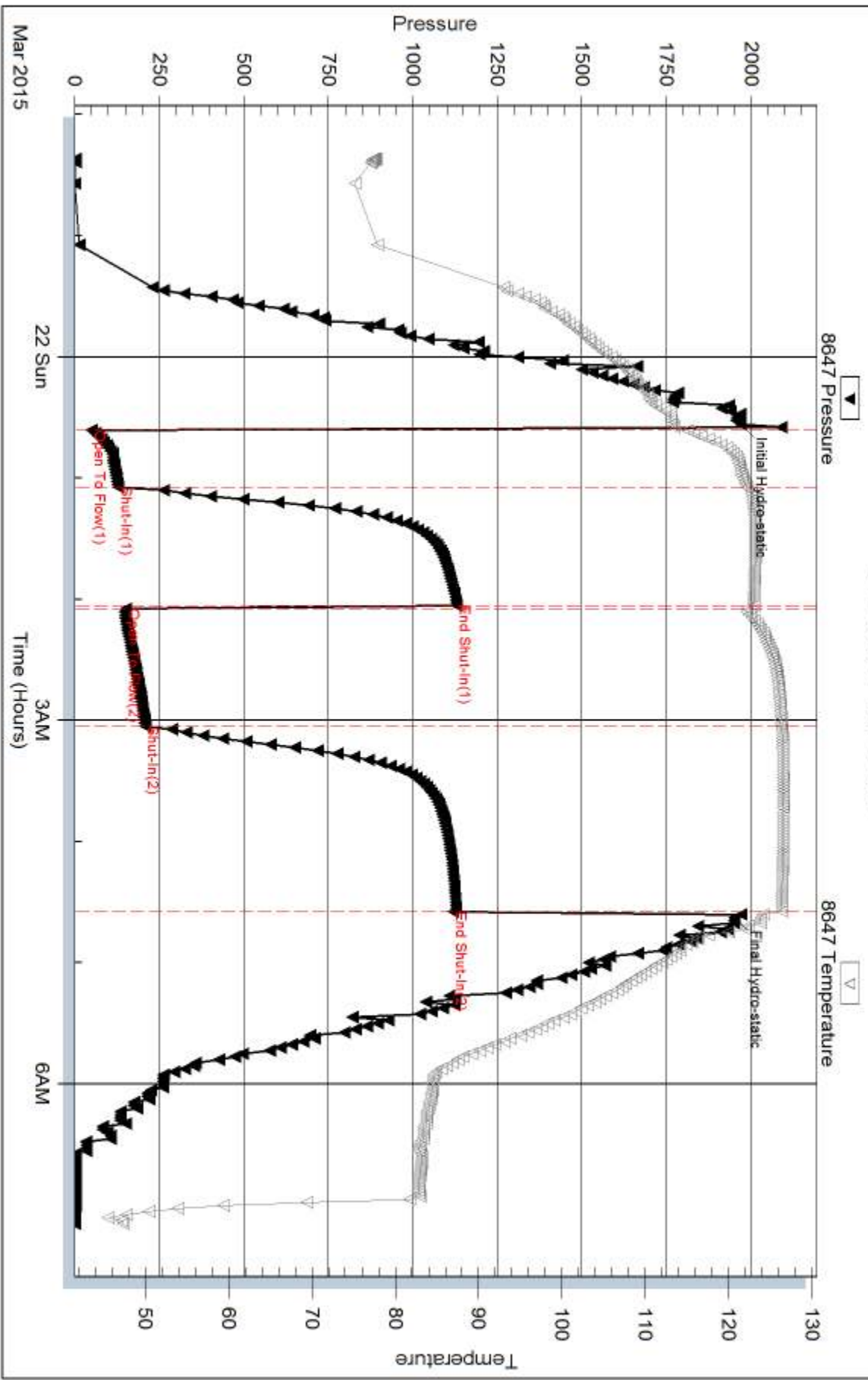
Serial #:

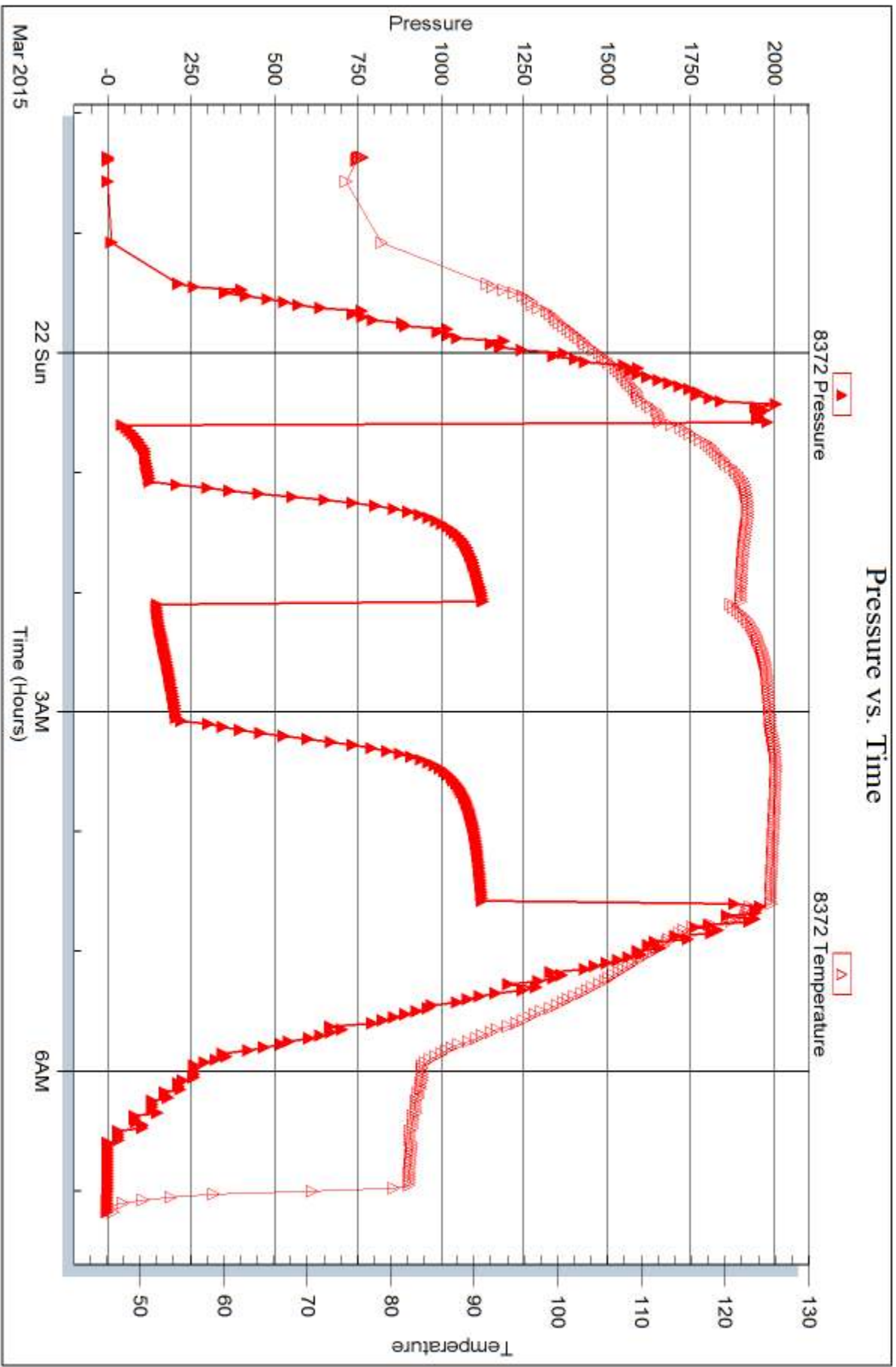
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 38 @ 58F Corrected = 38

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., Inc.**

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Schmidt-Vap #3-26

26-4s-31w Rawlins,KS

Start Date: 2015.03.22 @ 16:34:00

End Date: 2015.03.23 @ 01:12:30

Job Ticket #: 62261 DST #: 3

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

Printed: 2015.03.25 @ 09:38:04

Murfin Drlg. Co., Inc.
26-4s-31w Rawlins,KS
Schmidt-Vap #3-26
DST # 3
LKC "H.J."
2015.03.22



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62261

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.03.22 @ 16:34:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:19:30

Time Test Ended: 01:12:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 57

Interval: 4016.00 ft (KB) To 4085.00 ft (KB) (TVD)

Reference Elevations: 2899.00 ft (KB)

Total Depth: 4085.00 ft (KB) (TVD)

2894.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 200.13 psig @ 4017.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.03.22

End Date:

2015.03.23

Last Calib.:

2015.03.23

Start Time:

16:34:01

End Time:

01:12:30

Time On Btm:

2015.03.22 @ 18:16:30

Time Off Btm:

2015.03.22 @ 22:22:30

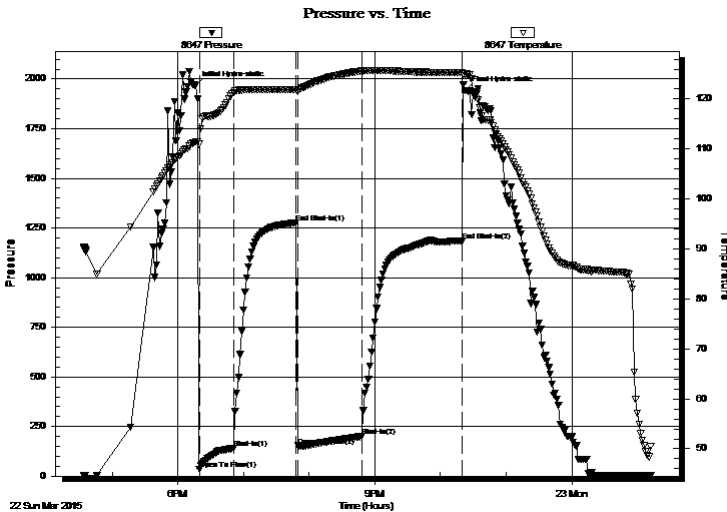
TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 12 min.

60 - ISI - Return built to 4 1/4"

60 - FF - Blow built to B.o.B in 15 min.

90 - FSI - Return built to 7"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.69	111.42	Initial Hydro-static
3	34.82	110.93	Open To Flow (1)
35	140.08	121.33	Shut-In(1)
92	1275.52	121.87	End Shut-In(1)
93	152.80	121.54	Open To Flow (2)
152	200.13	125.60	Shut-In(2)
243	1183.28	125.24	End Shut-In(2)
246	1940.77	125.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
294.00	WGOCM 42% <i>m</i> , 20% <i>g</i> , 20% <i>w</i> , 18% <i>o</i>	1.86
139.00	GO 80% <i>o</i> , 20% <i>g</i>	1.95
0.00	378' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

26-4s-31w Rawlins, KS

Schmidt-Vap #3-26

Job Ticket: 62261

DST#: 3

Test Start: 2015.03.22 @ 16:34:00

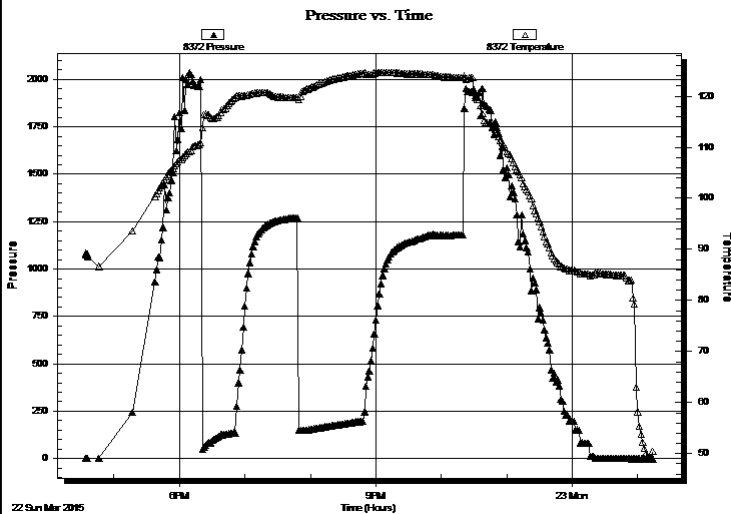
GENERAL INFORMATION:

Formation: **LKC "H-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:19:30
 Time Test Ended: 01:12:30
 Interval: **4016.00 ft (KB) To 4085.00 ft (KB) (TVD)**
 Total Depth: 4085.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Quintana
 Unit No: 57
 Reference Elevations: 2899.00 ft (KB)
 2894.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: psig @ 4017.00 ft (KB)
 Start Date: 2015.03.22 End Date: 2015.03.23
 Start Time: 16:34:01 End Time: 01:14:00
 Capacity: 8000.00 psig
 Last Calib.: 2015.03.23
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF - Opened w/ surface blow , built to B.o.B in 12 min.
 60 - ISI - Return built to 4 1/4"
 60 - FF - Blow built to B.o.B in 15 min.
 90 - FSI - Return built to 7"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
294.00	WGOCM 42% <i>m</i> , 20% <i>g</i> , 20% <i>w</i> , 18% <i>o</i>	1.86
139.00	GO 80% <i>o</i> , 20% <i>g</i>	1.95
0.00	378' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62261

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.03.22 @ 16:34:00

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.80 inches	Volume: 52.88 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.50 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.50 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4016.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	97.00 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			3993.00	
Hydraulic tool	5.00			3998.00	
Jars	5.00			4003.00	
Safety Joint	3.00			4006.00	
Packer	5.00			4011.00	28.00 Bottom Of Top Packer
Packer	5.00			4016.00	
Stubb	1.00			4017.00	
Recorder	0.00	8647	Inside	4017.00	
Recorder	0.00	8372	Outside	4017.00	
Perforations	31.00			4048.00	
Change Over Sub	1.00			4049.00	
Drill Pipe	32.00			4081.00	
Change Over Sub	1.00			4082.00	
Bullnose	3.00			4085.00	69.00 Bottom Packers & Anchor

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62261

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.03.22 @ 16:34:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

60000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
294.00	WGOCM 42%m, 20%g, 20%w , 18%o	1.860
139.00	GO 80%o, 20%g	1.950
0.00	378' GIP	0.000

Total Length: 433.00 ft Total Volume: 3.810 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

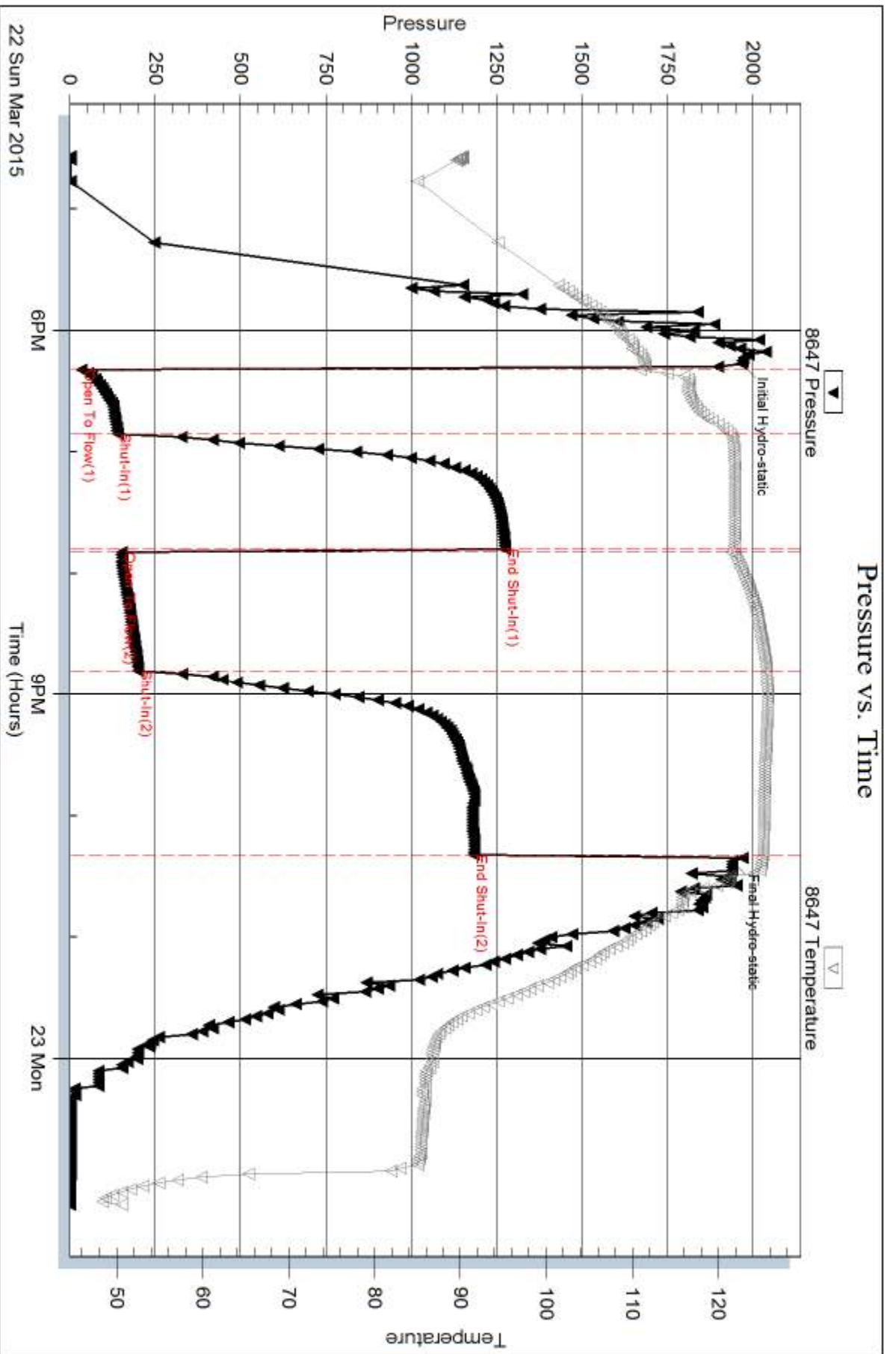
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .195 @ 46F Chlorides 60,000ppm

Gravity 34 @ 70F Corrected = 35

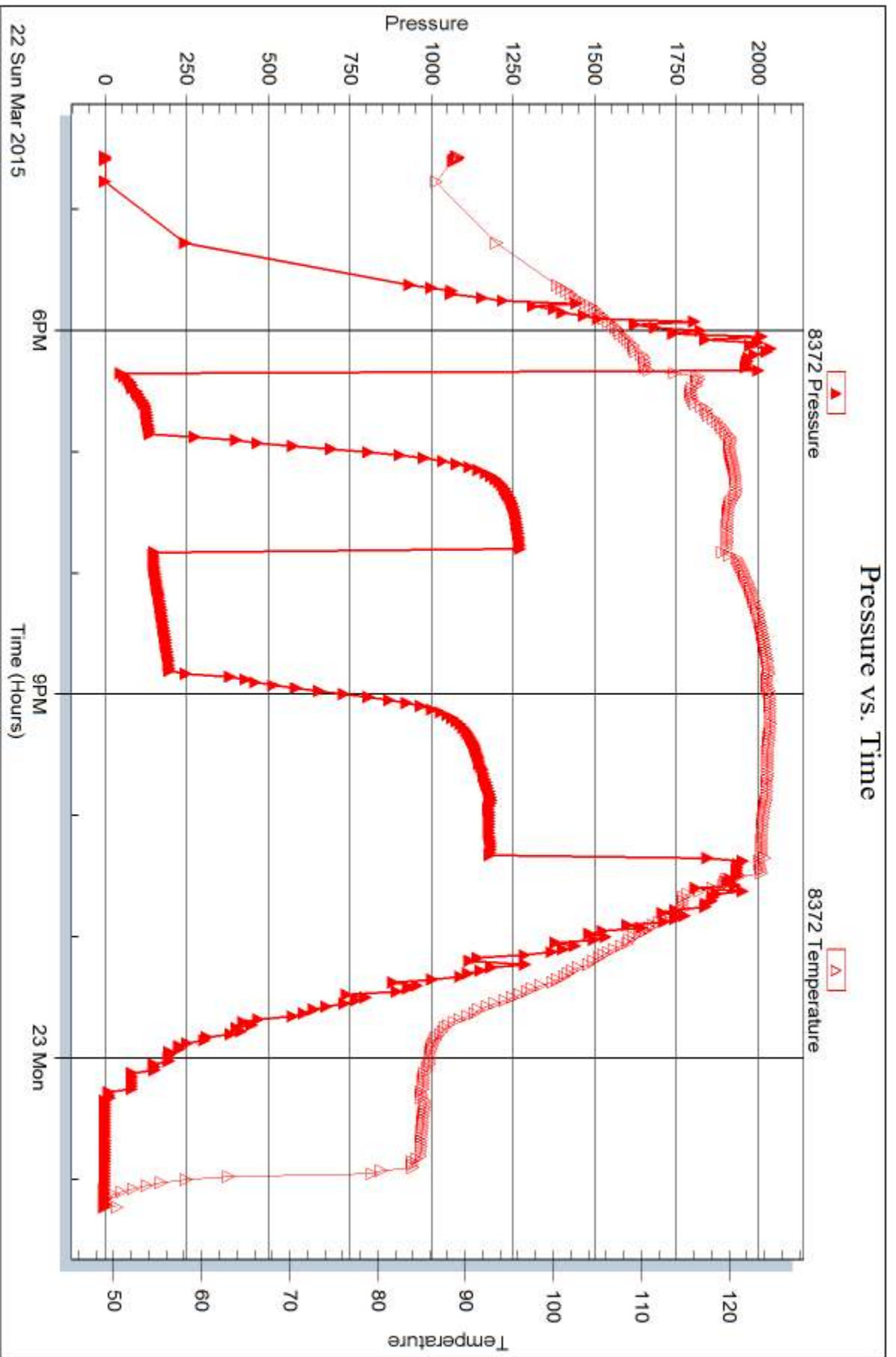


Serial #: 8372

Outside Murfin Drtg. Co., Inc.

Schmidt-Vap #3-26

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62261

Printed: 2015.03.25 @ 09:38:06



DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., Inc.**

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Schmidt-Vap #3-26

26-4s-31w Rawlins,KS

Start Date: 2015.03.23 @ 11:00:00

End Date: 2015.03.23 @ 18:03:30

Job Ticket #: 62262 DST #: 4

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

Printed: 2015.03.25 @ 09:37:40

Murfin Drlg. Co., Inc.
26-4s-31w Rawlins,KS
Schmidt-Vap #3-26
DST # 4
LKC "K-L"
2015.03.23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62262

DST#: 4

ATTN: Rocky Milford

Test Start: 2015.03.23 @ 11:00:00

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:19:30

Time Test Ended: 18:03:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 57

Interval: 4081.00 ft (KB) To 4139.00 ft (KB) (TVD)

Reference Elevations: 2899.00 ft (KB)

Total Depth: 4139.00 ft (KB) (TVD)

2894.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 24.32 psig @ 4082.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.03.23

End Date:

2015.03.23

Last Calib.:

2015.03.23

Start Time: 11:00:01

End Time:

18:03:30

Time On Btm:

2015.03.23 @ 13:17:30

Time Off Btm:

2015.03.23 @ 16:22:30

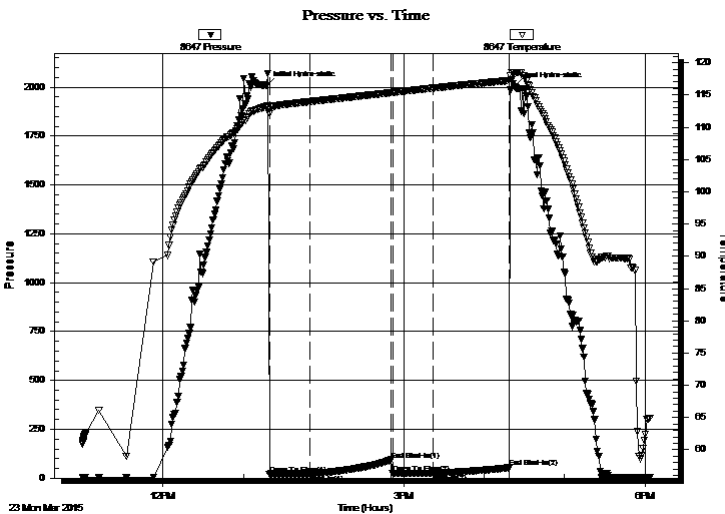
TEST COMMENT: 30 - IF - Opened w/ surface blow , built to 1/4"

60 - ISI - No Return

30 - FF - No Blow

60 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.35	113.26	Initial Hydro-static
2	17.94	112.14	Open To Flow (1)
32	21.65	113.96	Shut-In(1)
93	93.41	115.35	End Shut-In(1)
94	23.03	115.37	Open To Flow (2)
124	24.32	116.07	Shut-In(2)
181	52.91	117.25	End Shut-In(2)
185	2002.29	118.50	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	100% mud	0.02

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62262

DST#: 4

ATTN: Rocky Milford

Test Start: 2015.03.23 @ 11:00:00

Tool Information

Drill Pipe:	Length: 3834.00 ft	Diameter: 3.80 inches	Volume: 53.78 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.50 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.50 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4081.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.68 ft			
Tool Length:	86.68 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			4058.00	
Hydraulic tool	5.00			4063.00	
Jars	5.00			4068.00	
Safety Joint	3.00			4071.00	
Packer	5.00			4076.00	28.00 Bottom Of Top Packer
Packer	5.00			4081.00	
Stubb	1.00			4082.00	
Recorder	0.00	8647	Inside	4082.00	
Recorder	0.00	8372	Outside	4082.00	
Perforations	21.00			4103.00	
Change Over Sub	1.00			4104.00	
Drill Pipe	31.68			4135.68	
Change Over Sub	1.00			4136.68	
Bullnose	3.00			4139.68	58.68 Bottom Packers & Anchor

Total Tool Length: 86.68



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62262

DST#: 4

ATTN: Rocky Milford

Test Start: 2015.03.23 @ 11:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

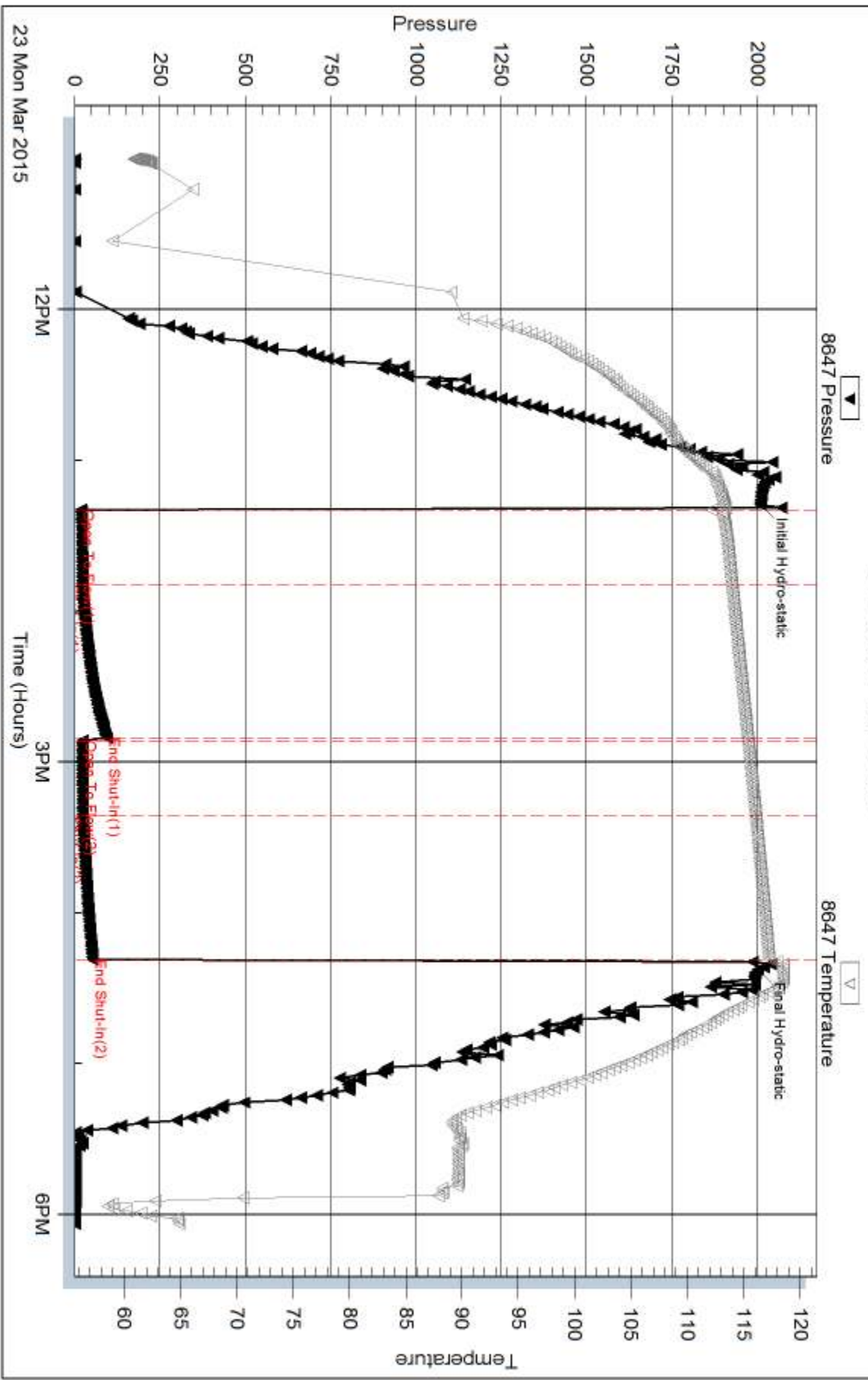
Serial #:

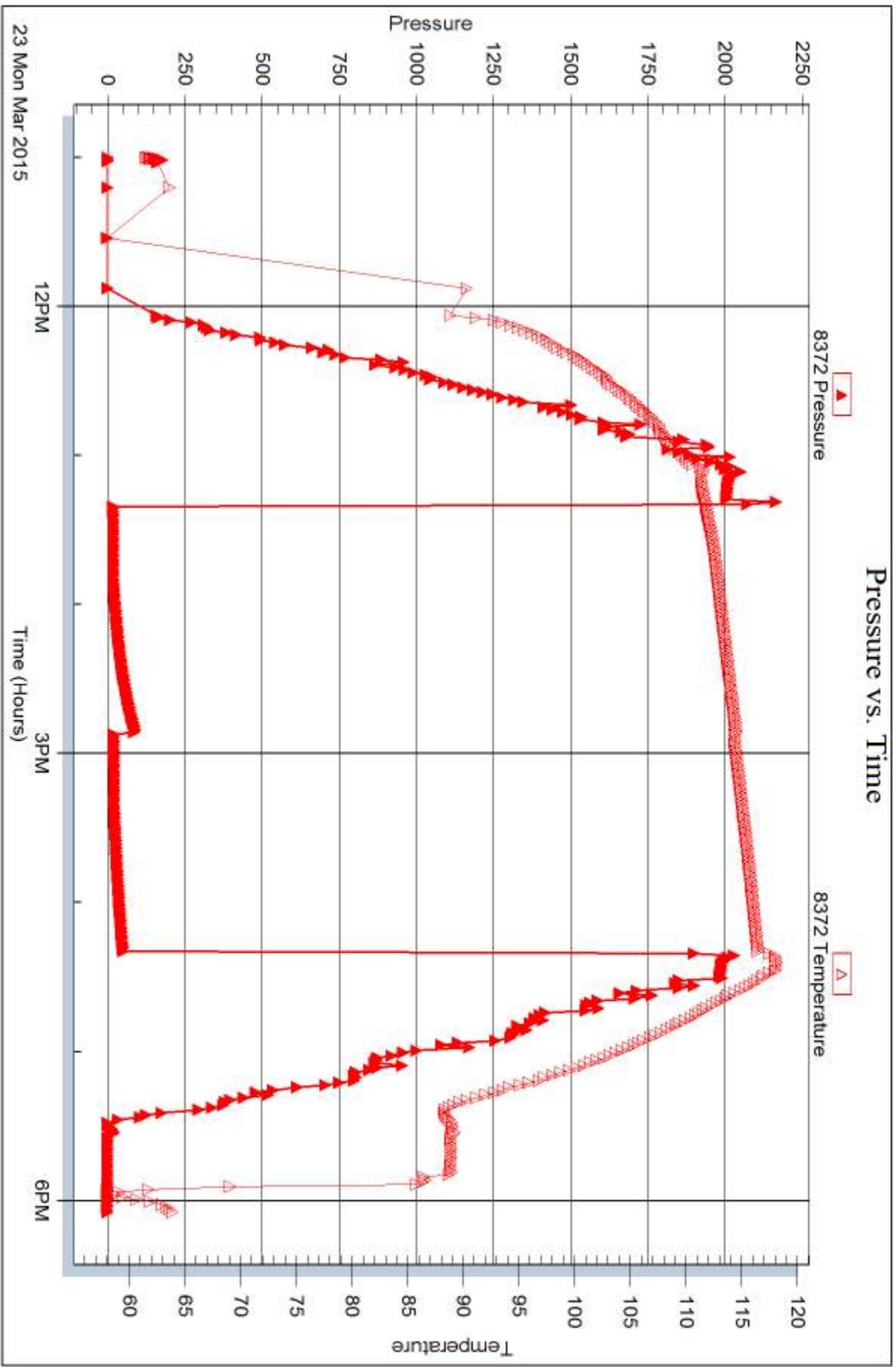
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Murfin Drlg. Co., Inc.**

250 N. Water, Ste 300
Wichita, KS 67202

ATTN: Rocky Milford

Schmidt-Vap #3-26

26-4s-31w Rawlins,KS

Start Date: 2015.03.24 @ 15:14:00

End Date: 2015.03.24 @ 21:52:30

Job Ticket #: 62263 DST #: 5

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

Printed: 2015.03.25 @ 09:35:44

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

Schmidt-Vap #3-26

DST # 5

Fl. Scott - Verdigr

2015.03.24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62263

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.03.24 @ 15:14:00

GENERAL INFORMATION:

Formation: **Ft. Scott - Verdigri**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:10:30

Time Test Ended: 21:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Quintana

Unit No: 57

Interval: **4294.00 ft (KB) To 4364.00 ft (KB) (TVD)**

Reference Elevations: 2899.00 ft (KB)

Total Depth: 4364.00 ft (KB) (TVD)

2894.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647 Inside

Press@RunDepth: 33.20 psig @ 4295.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.03.24

End Date:

2015.03.24

Last Calib.: 2015.03.24

Start Time: 15:14:01

End Time:

21:52:30

Time On Btm: 2015.03.24 @ 17:08:30

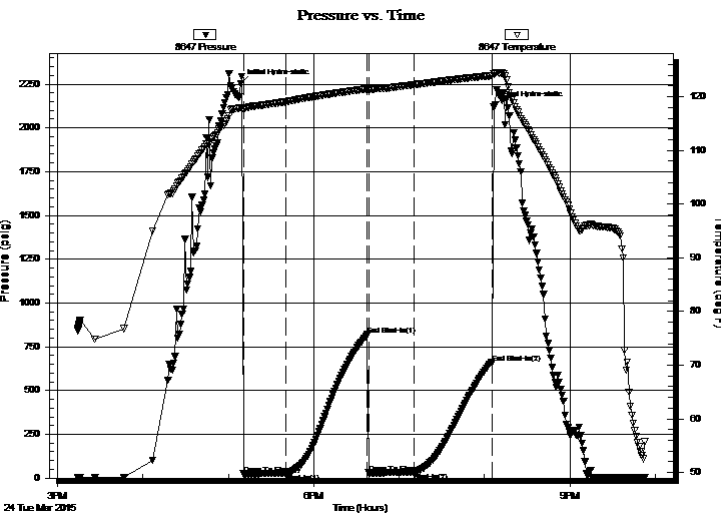
Time Off Btm: 2015.03.24 @ 20:07:30

TEST COMMENT: 30- IF - Opened w / surface blow , built to 1/2"

60 - ISI - No Return

30 - FF - No Blow

60 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2254.86	117.96	Initial Hydro-static
2	23.41	117.61	Open To Flow (1)
32	27.44	119.08	Shut-In(1)
89	819.32	121.47	End Shut-In(1)
90	29.43	121.26	Open To Flow (2)
122	33.20	122.23	Shut-In(2)
177	657.55	123.95	End Shut-In(2)
179	2129.27	124.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% mud w / oil on top	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62263

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.03.24 @ 15:14:00

Tool Information

Drill Pipe:	Length: 4023.00 ft	Diameter: 3.80 inches	Volume: 56.43 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 248.50 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.50 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4294.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4271.00	
Hydraulic tool	5.00			4276.00	
Jars	5.00			4281.00	
Safety Joint	3.00			4284.00	
Packer	5.00			4289.00	28.00 Bottom Of Top Packer
Packer	5.00			4294.00	
Stubb	1.00			4295.00	
Recorder	0.00	8647	Inside	4295.00	
Recorder	0.00	8372	Outside	4295.00	
Perforations	32.00			4327.00	
Change Over Sub	1.00			4328.00	
Drill Pipe	32.00			4360.00	
Change Over Sub	1.00			4361.00	
Bullnose	3.00			4364.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drlg. Co., Inc.

26-4s-31w Rawlins,KS

250 N. Water, Ste 300
Wichita, KS 67202

Schmidt-Vap #3-26

Job Ticket: 62263

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.03.24 @ 15:14:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 74.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	100% mud w / oil on top	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbf

Num Fluid Samples: 0

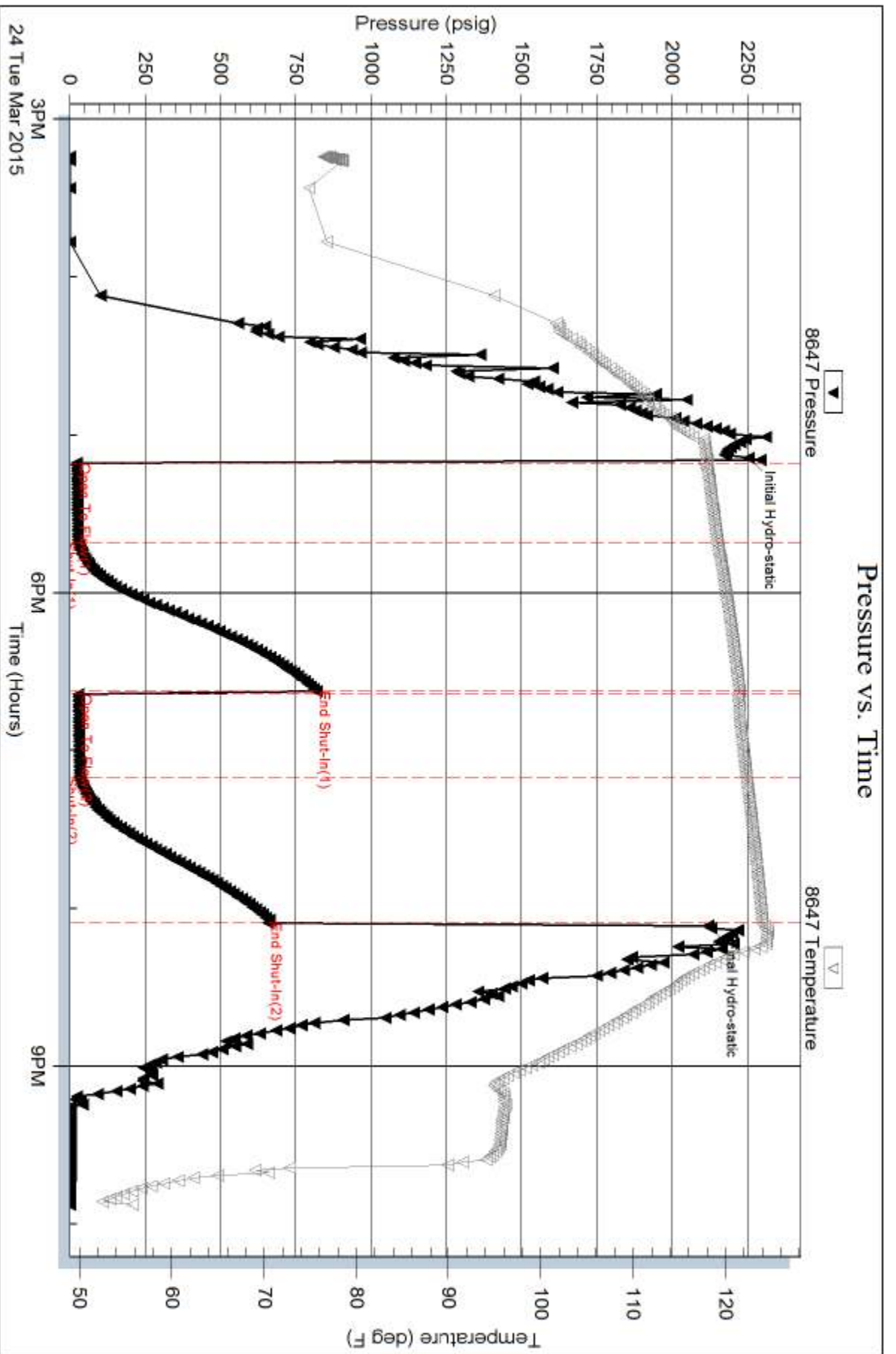
Num Gas Bombs: 0

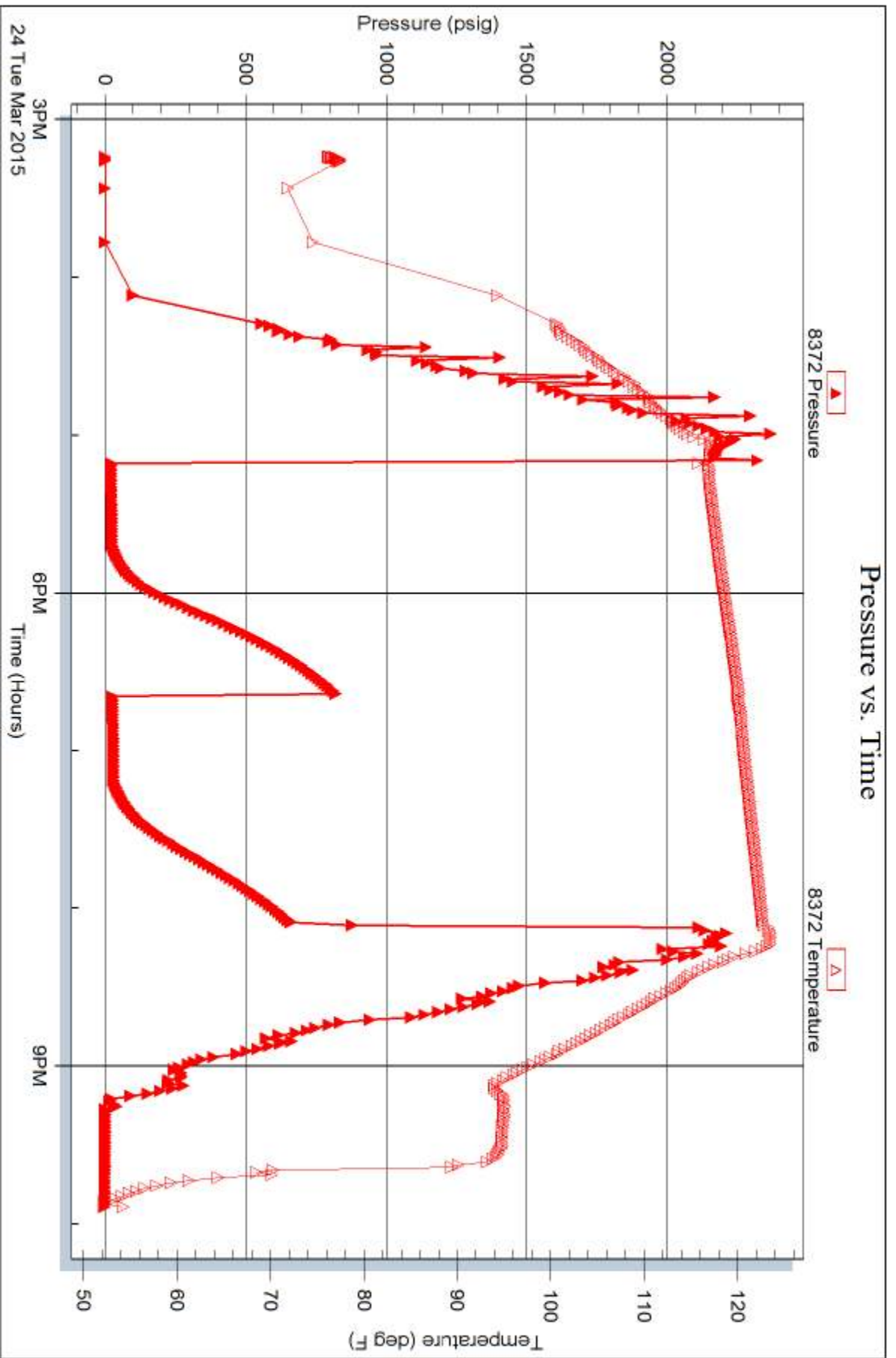
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62259

4/10

Well Name & No. Schmidt-Vap #3-26 Test No. 1 Date 3-21-15
 Company Murfin Drly. Co., Inc. Elevation 2899 KB 2894 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 26 Twp. 4s Rge. 31w Co. Rawlins State KS

Interval Tested 3865-3953 Zone Tested Toronto-LKC "B"
 Anchor Length 88' Drill Pipe Run 3612 Mud Wt. 8.8
 Top Packer Depth 3860 Drill Collars Run ~~186.6~~ 248.5 Vis 59
 Bottom Packer Depth 3865 Wt. Pipe Run — WL 6.8
 Total Depth 3953 Chlorides 1500 ppm System LCM 5
 Blow Description IF- Opened w/ surface blow, built to B.o.B in 3 1/2 min.
ISI- Return built to B.o.B in 28 min.
FF- Blw built to B.o.B in 3 1/2 min.
PSI- Return built to B.o.B in 26 1/2 min.

Rec	Feet of	%gas	%oil	%water	%mud
1124	GO	30	70		
258	MCO		60		40
1116	GIP	100			
Rec Total	1382	BHT	123	Gravity	30

(A) Initial Hydrostatic 1909 Test 1050 T-On Location 1:03 AM
 (B) First Initial Flow 95 Jars 250 T-Started 1:42 AM
 (C) First Final Flow 345 Safety Joint 75 T-Open 4:00 AM
 (D) Initial Shut-In 1286 Circ Sub x1 50 T-Pulled 7:00 AM
 (E) Second Initial Flow 366 Hourly Standby K1 80 T-Out 11:58 AM
 (F) Second Final Flow 530 Mileage 50 R.T 54 Comments _____
 (G) Final Shut-In 1277 Sampler _____
 (H) Final Hydrostatic 1869 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1559

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

Sub Total 0
 Total 1559
 MP/DST Disc't _____

Approved By _____ Our Representative Burd Q. L.
 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. 62260

Well Name & No. Schmidt-Vap #3-26 Test No. 2 Date 3-27-15
 Company Murfin Prlg. Co., Inc Elevation 2899 KB 2894 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3967-4020 Zone Tested LKC "E"-G"
 Anchor Length 53' Drill Pipe Run 3707 Mud Wt. 9
 Top Packer Depth 3962 Drill Collars Run 248.5 Vis 46
 Bottom Packer Depth 3967 Wt. Pipe Run — WL 6.8
 Total Depth 4020 Chlorides 1500 ppm System LCM 4

Blow Description IF - Opened w/ surface blow. built to B.o.B in 6 min.
ISI - Return built to 9", died back to 6"
FF - Blow built to B.o.B in 13 min.
FSI - Return built to 2", died back to nothing

Rec	Feet of	%gas	%oil	%water	%mud
<u>321</u>	<u>60</u>	<u>32</u>	<u>68</u>		
<u>185</u>	<u>GMCO</u>	<u>40</u>	<u>30</u>		<u>30</u>
<u>1008</u>	<u>GIP</u>	<u>100</u>			

Rec Total 506 BHT 126 Gravity 38 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1968 Test 1150 T-On Location 10:17 PM
 (B) First Initial Flow 50 Jars 250 T-Started 10:22 PM
 (C) First Final Flow 129 Safety Joint 75 T-Open 12:36 AM
 (D) Initial Shut-In 1129 Circ Sub — T-Pulled 4:36 AM
 (E) Second Initial Flow 152 Hourly Standby — T-Out 7:13 AM
 (F) Second Final Flow 208 Mileage 50 R.T. 54 Comments —
 (G) Final Shut-In 1119 Sampler —
 (H) Final Hydrostatic 1951 Straddle —
 Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Initial Open 30 Shale Packer —
 Initial Shut-In 66 Extra Packer —
 Final Flow 60 Extra Recorder —
 Final Shut-In 90 Day Standby —
 Accessibility —
 Sub Total 1529 Total 1529 MP/DST Disc't —

Approved By _____ Our Representative Bruce O. K.
 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. 62261

Well Name & No. Schmidt - Vap #3-26 Test No. 3 Date 3-22-15
 Company Murfin Drlg. Co., Inc. Elevation 2899 KB 2894 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4016 - 4085 Zone Tested LKC "H-3"
 Anchor Length 69 Drill Pipe Run 3770 Mud Wt. 9.1
 Top Packer Depth 4011 Drill Collars Run 248.5 Vis 60
 Bottom Packer Depth 4016 Wt. Pipe Run — WL 6
 Total Depth 4085 Chlorides 1500 ppm System LCM 4
 Blow Description IF - Opened w/ surface blow, built to B.O.B in 12 min
ISI - Return built to 4 1/4"
FF - Blow built to B.O.B in 18 min.
FSI - Return built to 7"

Rec	Feet of	%gas	%oil	%water	%mud
139	60	20	80		
294	W60CM	20	18	20	42
378	GIP	100			

Rec Total 433 BHT 125 Gravity 35 API RW .145 @ 46 °F Chlorides 60,000 ppm
 (A) Initial Hydrostatic 1967 Test 1150 T-On Location 4:20 PM
 (B) First Initial Flow 34 Jars 250 T-Started 4:34 PM
 (C) First Final Flow 140 Safety Joint 75 T-Open 6:20 PM
 (D) Initial Shut-In 1275 Circ Sub _____ T-Pulled 10:20 PM
 (E) Second Initial Flow 152 Hourly Standby _____ T-Out 1:15 AM
 (F) Second Final Flow 200 Mileage 50 R.T. 54 Comments _____
 (G) Final Shut-In 1183 Sampler _____
 (H) Final Hydrostatic 1940 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Shale Packer _____
 Final Flow 60 Extra Packer _____
 Final Shut-In 90 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1529 Total 1529
 MP/DST Disc't _____

Approved By _____ Our Representative Bud Ot

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. **62262**

4/10

Well Name & No. Schmidt-Vap #3-26 Test No. 4 Date 3-23-15
 Company Murfin Drlg. Co., Inc. Elevation 2899 KB 2894 GL
 Address 250 N. Water, Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31w Co. Rawlins State KS

Interval Tested 4081 - 4139 Zone Tested LKC "K-L"
 Anchor Length 58' Drill Pipe Run 3834 Mud Wt. 9.2
 Top Packer Depth 4076 Drill Collars Run 248.5 Vis 65
 Bottom Packer Depth 4081 Wt. Pipe Run — WL 5.6
 Total Depth 4139 Chlorides 2.000 ppm System LCM 5
 Blow Description IF - Opened w/ surface blow, built to 1/4"
ISI - No Return
FF - No Blow
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>				<u>100</u>

Rec Total 5 BHT 117 Gravity 1150 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2058 Test 1150 T-On Location 10:46 AM
 (B) First Initial Flow 17 Jars 250 T-Started 11:00 AM
 (C) First Final Flow 21 Safety Joint 75 T-Open 1:20 PM
 (D) Initial Shut-In 93 Circ Sub — T-Pulled 4:20 PM
 (E) Second Initial Flow 23 Hourly Standby — T-Out 6:05 PM
 (F) Second Final Flow 24 Mileage 50 R.T. 54 Comments —
 (G) Final Shut-In 52 Sampler —
 (H) Final Hydrostatic 2002 Straddle —
 Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —
 Sub Total 1529

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

Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Sub Total 0
 Total 1529
 MP/DST Disc't —

Approved By _____ Our Representative Brd O T

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. **62263**

Well Name & No. Schmidt-Vap #3-26 Test No. 5 Date 3-24-15
 Company Murfin Drly. Co., Inc. Elevation 2899 KB 2894 GL
 Address 250 N. Water, STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 26 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4294-4364 Zone Tested Ft. Scott - Verdigris
 Anchor Length 70' Drill Pipe Run 4023 Mud Wt. 9.2
 Top Packer Depth 4289 Drill Collars Run 248.5 Vis 74
 Bottom Packer Depth 4294 Wt. Pipe Run — WL 6.4
 Total Depth 4364 Chlorides 1900 ppm System LCM 4
 Blow Description IF - Opened w/ surface blow. built to 1/2"
ISI - No Return
FF - No Blow
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud w/ oil on top</u>			<u>100</u>	

Rec Total 10 BHT 123 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2254 Test 1150 T-On Location 3:00 PM
 (B) First Initial Flow 23 Jars 250 T-Started 3:14 PM
 (C) First Final Flow 27 Safety Joint 75 T-Open 5:10 PM
 (D) Initial Shut-In 819 Circ Sub _____ T-Pulled 8:10 PM
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 9:54 PM
 (F) Second Final Flow 33 Mileage 50 R.T. 54 Comments Picked up tool
 (G) Final Shut-In 657 Sampler _____ after test.
 (H) Final Hydrostatic 2129 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1529
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1529

Approved By _____ Our Representative Bud Oit

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Robert L. Milford

PETROLEUM GEOLOGIST

Wichita, Kansas

GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR: **Murfin Drilling Company, Inc.**
 LEASE: **Schmidt-Vap #3-26**
 LOC. SPOT: **C 52 SE SW**
 LOC. FOOTAGE: **330' FSL 1,980' FWL**

SECY: **26** TWP: **4S** RNG: **31W**
 COUNTY: **Rauvins** STATE: **Kansas**
 API: **15-153-21118-00-00**

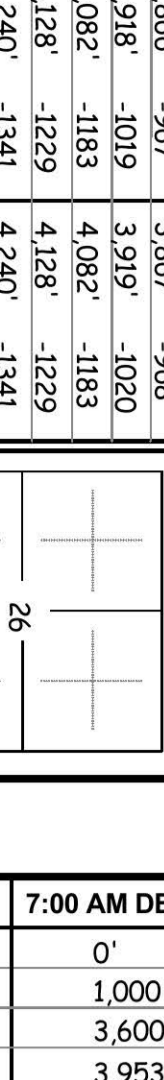
CONTRACTOR: **Murfin Drilling Co., Inc.** RIG NO. **7**
 DRILLING STARTED: **5-18-10** COMPLETED: **3-25-2015**
 MUD DISPLAYED: **3,200' MUD TYPE: Chemical**
 DRILLING TIME/EFT FROM: **3,600'** TO: **RTD**
 SAMPLES SAVED FROM: **3,600'** TO: **RTD**
 SAMPLES EXAMINED FROM: **3,600'** TO: **RTD**
 GEOLOGICAL SUPERVISION FROM: **3,600'** TO: **RTD**

FORMATION NAME: **TOP** LOG: **DATUM** SAMPLE: **DATUM**
 Stone Corral: **2,635' -264** **2,633' -266**
 Topeka: **3,702' -803** **3,702' -803**
 Heebner: **3,866' -967** **3,867' -968**
 Lansing: **3,918' -1019** **3,919' -1020**
 Stark: **4,082' -1183** **4,082' -1183**
 B/KC: **4,128' -1229** **4,128' -1229**
 Pawnee: **4,240' -1341** **4,240' -1341**
 Cherokee: **4,330' -1431** **4,330' -1431**
 Mississippian: **not on log** **4,457' -1588**
 Total Depth: **4,465' -1567** **4,465' -1566**

MEASUREMENTS: **KB 2,899'**
GL 2,894'

CASING RECORD
 Conductor:
 Surface: **8.5/8" @ 219'**
 w/ 200 sacks cement
 Production: **5.1/2" @ 4462'**
 w/ 500 sacks cement

ELECTRICAL SURVEYS
 Flowline Wireline:
 Dual Induction Log
 Dual Compensated -
 Porosity Log
 Microresistivity Log
 Borehole Compensated-
 Sonic Log



DATE	7:00 AM DEPTH	REMARKS
3-18-15	0'	Spud @ 1:45 pm. Plug down @ 5:30 pm. Drilled out plug @ 1:30 am on 3-19-15 w/ PDC bit
3-19-15	1,000'	Cut 1,000' in last 24 hrs. Cut 781' in 5.5 hrs w/ PDC bit. Bit trip @ 3546' (ran button bit)
3-20-15	3,600'	Cut 2,600' in last 24 hrs; 18 hrs drlg (16 hrs w/ PDC bit). DST #1 @ 3953'
3-21-15	3,953'	Cut 353' in last 24 hrs; 11.5 hrs drlg. DST #2 @ 4020'
3-22-15	4,020'	Cut 67' in last 24 hrs; 3 hrs drlg. DST #3 @ 4085'
3-23-15	4,115'	Cut 95' in last 24 hrs; 5 hrs drlg. DST #4 @ 4139'
3-24-15	4,300'	Cut 185' in last 24 hrs; 11.25 hrs drlg. DST #5 @ 4364'. RTD 4465' @ 1:56 am 3-25-15
3-25-15	4,465'	Cut 165' in last 24 hrs; 1.5 hrs drlg. Ran production casing.

Remarks

The electric log measurements correlate from 1' higher to 2' lower to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

Robert L. Milford

