



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1227886
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: _____

1227886

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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	Jean 4-8
Doc ID	1227886

All Electric Logs Run

DIL
DUCP
MEL
BHCS



*acct
Prod - mg*

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 144075

Invoice Date: Jun 23, 2014

Page: 1

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

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	63461A	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jun 23, 2014	7/23/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Jean #4-8		
225.00	CEMENT MATERIALS	Class A Common	17.90	4,027.50
635.00	CEMENT MATERIALS	Chloride	1.10	698.50
236.25	CEMENT SERVICE	Cubic Feet Charge	2.48	585.90
980.27	CEMENT SERVICE	Ton Mileage Charge	2.75	2,695.74
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
90.00	CEMENT SERVICE	Pump Truck Mileage	7.70	693.00
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
90.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	396.00
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		

Subtotal	10,883.89
Sales Tax	385.17
Total Invoice Amount	11,269.06
Payment/Credit Applied	
TOTAL	11,269.06

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

\$ 3,809.36

ONLY IF PAID ON OR BEFORE

Jul 23, 2014

Wiley

ALLIED OIL & GAS SERVICES, LLC

063469A

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

Calley

DATE <u>6-20-14</u>	SEC <u>8</u>	TWP <u>15</u>	RANGE <u>37W</u>	CALLED OUT	ON LOCATION <u>6:00 PM</u>	JOB START <u>6:30 PM</u>	JOB FINISH <u>10:30 PM</u>
LEASE <u>Jean</u>	WELL # <u>4-8</u>	LOCATION <u>Bird city N to Rd 702</u>	COUNTY <u>Cherokee</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one) <u>NEW</u>		<u>3E 25 1W into</u>					

CONTRACTOR <u>Mur Fin 8</u>	OWNER <u>same</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>218'</u>
CASING SIZE <u>8 7/8</u>	DEPTH <u>218'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>3000'</u>	
PERFS.	
DISPLACEMENT <u>12.00 BBL</u>	

CEMENT	
AMOUNT ORDERED <u>225 sks com 38cc</u>	
COMMON <u>225 sks</u>	@ <u>17.90</u> <u>4027.50</u>
POZMIX	@
GEL	@
CHLORIDE <u>6.35%</u>	@ <u>1.10</u> <u>698.50</u>
ASC	@

EQUIPMENT		Made in US Total	@	<u>4725.00</u>
PUMP TRUCK # <u>431</u>	CEMENTER <u>Andrew Harold</u>	HELPER <u>Brandon Wilkins</u>	@	<u>(639.10/35%)</u>
BULK TRUCK # <u>Enrique 28</u>	DRIVER <u>Enrique (two)</u>		@	
BULK TRUCK #	DRIVER		@	

HANDLING <u>236.25 cu/ft</u>	@ <u>2.48</u>	<u>585.90</u>
MILEAGE <u>2.25 to 100/mile</u>	<u>10.89/mile</u>	<u>26.95.25</u>
TOTAL		

REMARKS:

Cement Dis Circulate
10 BBL TO PIT

Thank you

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

SERVICE

DEPTH OF JOB <u>218'</u>	
PUMP TRUCK CHARGE	<u>1512.25</u>
EXTRA FOOTAGE	@
MILEAGE <u>90 miles</u>	@ <u>7.70</u> <u>693.00</u>
MANIFOLD <u>Swedge</u>	@ <u>275.00</u>
<u>Light vehicle</u>	@ <u>440</u> <u>396.00</u>
TOTAL	<u>6,151.90</u>

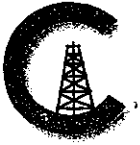
PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
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 _____
SIGNATURE Robert J. Fournier

SALES TAX (if Any) _____
TOTAL CHARGES 10,883.70
DISCOUNT 3,809.36 (35%) IF PAID IN 30 DAYS
7,074.34 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. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 269315

Invoice Date: 07/17/2014 Terms: 10/10/10,n/30

Page 1

MURFIN DRILLING
P.O. BOX 288
RUSSELL KS 67665
() -

JEAN 4-8
47004
8-1-37
7-2-14
KS

USED FOR KC 103
APPROVED TJ

Part Number	Description	Qty	Unit Price	Total
1126	OIL WELL CEMENT	200.00	23.7000	4740.00
1110A	KOL SEAL (50# BAG)	1000.00	.5600	560.00
1104D	CLASS "A" CEMENT CMD	300.00	27.9200	8376.00
1142A	KCL SUB MB6875 CC3107 (1	2.00	41.1000	82.20
1144G	MUD FLUSH (SALE)	500.00	1.0000	500.00
4159	FLOAT SHOE AFU 5 1/2"	1.00	433.7500	433.75
4130	CENTRALIZER 5 1/2"	15.00	61.0000	915.00
4104	CEMENT BASKET 5 1/2"	3.00	290.0000	870.00
4315	ROTATING SCRATCHERS	20.00	94.5000	1890.00
4454	5 1/2" LATCH DOWN PLUG	1.00	567.0000	567.00
4310	MISC. EQUIPMENT	1.00	150.0000	150.00

Sublet Performed	Description	Total
9995-130	CEMENT EQUIPMENT DISCOUNT	-693.88
9996-130	CEMENT MATERIAL DISCOUNT	-1908.40

Description	Hours	Unit Price	Total
456 SINGLE PUMP	1.00	3175.00	3175.00
456 EQUIPMENT MILEAGE (ONE WAY)	85.00	5.25	446.25
530 TON MILEAGE DELIVERY	1.00	3317.55	3317.55

Amount Due 27578.10 if paid after 07/27/2014

Parts:	19083.95	Freight:	.00	Tax:	1399.82	AR	24820.29
Labor:	.00	Misc:	.00	Total:	24820.29		
Sublt:	-2602.28	Supplies:	.00	Change:	.00		

Signed _____ Date _____



CONSOLIDATED
Oil Well Services, LLC

269315

TICKET NUMBER 47004

LOCATION Oakley, KS

FOREMAN Dane Retzloff

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

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-2-14	5406	Jean 4-B	8	1	37	Cheyenne
CUSTOMER			KS			
Mailing Address			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			STATE	ZIP CODE		

JOB TYPE Production HOLE SIZE 7 7/8 HOLE DEPTH 4760 CASING SIZE & WEIGHT 5.50 15.56 LBS
 CASING DEPTH 4256.32 DRILL PIPE 4.5 TUBING ND OTHER _____
 SLURRY WEIGHT 145/11.00 SLURRY VOL 156/3.00 WATER gal/sk 697/21.00 CEMENT LEFT in CASING 21.10
 DISPLACEMENT 112.6 DISPLACEMENT PSI 300 MIX PSI 300 RATE mix at 6 BBLs displace at 7 BBLs

REMARKS: Safety meeting. Rig up. Run float equip. Cents. on 1-4, 6, 9-12, 14, 15, 17, 27, 32, 67
Baskets on 18, 38, 63. Circ. joint wd for 30 mins. Circ on bottom for 1 hr. Plug mix and Rlt
mix 280 sks of CMD cement (149.60 slurry BBLs) Tail in with 200 sks of Dwc cement 5# Kol seal.
(55.54 slurry BBLs) wash pump + lines. Release plug. Displace 113 BBLs of water. Final lift
was 1000 psi. Plug landed at 1500 psi. Rig down. leave shut in with 200 psi.
300 sks of CMD
200 sks of Dwc 5# Kol seal
20 BBLs return to pit.

Thanks Dane + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3175.00	3175.00
5406	85	MILEAGE	5.25	446.25
5407A	22.3	Ton Mileage Delivery	1.75	3317.55
1126	200 sks	Dwc Cement	23.70	4740.00
110A 110A	1000	KOL Seal	.56	560.00
1104D	300 sks	CMD Cement	27.92	8376.00
1142A	2 gal	KCL	41.10	82.20
11446	500 gal	mud flush	1.00	500.00
4159	1	AFU Float shoe	433.75	433.75
4130	15	5/2 Centralizers	61.00	915.00
4104	3	5/2 Baskets	290.00	870.00
4315	20	5/2 scratchers	94.50	1890.00
4454	1	5/2 Latchdown Plug Assembly	567.00	567.00
4310 ?	1	Rotating Head	150.00	150.00
			Sub	26022.15
			10% tax	2602.28
			Total	23420.41
			SALES TAX	1399.82
			ESTIMATED TOTAL	24820.23

Completed

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.

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.

Jean #4-8
 Daily Drilling Report
 Page Two

- 6/30/14 Depth 4495'. Cut 160'. DT: None. CT: 15hrs. Dev.: ½° @ 4242'. **DST #3 4238-4386 (LKC G-J)**: 30-60-60-90. IF: blw built to 1¼". FF: blow built to ¼". Rec. 80'M w/oil spots (100% M). HP: 2063-2054. FP: 25/43, 48/70. SIP: 925-890. BHT: 131°. **Pawnee**: pr-fr w/ some gd introol por, scat lt brn patchy-sat stn, SSFO, no odor (mstly small-vry small pcs). **DST #4 4535-4585 (Pawnee)**: est on bottom w/ test about 8:00 pm
- 7/1/14 Depth 4590'. Cut 95'. DT: None. CT: 17hrs. Dev.: None. **DST #4 4535-4585 (Pawnee)**: 30-60-60-90. IF: blw built to 3". FF: blw built to 3¼". Rec. 123' TF, 63' CGO (10%G, 90%O), 60' OCM (40%O, 60%M). Oil Grav 31° API. HP: 2283-2246. FP: 21/39, 48/63. SIP: 545-530. BHT: 138°.
- 7/2/14 RTD 4760'. Cut 170'. DT: none. CT: 15 ¾ hrs. Dev.: none. HC @ 4:00 PM 7/1/14. Pioneer logged from 8:30 PM 7/1/14 to 1:30 AM 7/2/14, LTD @ 4765'.
- 7/3/14 RTD 4760'. CT: 11 ½ hrs. Ran 5 ½" prod. csg @ 4756', COWS cmt w/450 sx. (250 sx. CMD, 200 sx EA2), PD @ 2:30 PM 7/2/14. 30 sx. in RH, 20 sx. in MH. RR @ 6:30 PM 7/2/14. FINAL REPORT.

MDCI Jean #4-8 660' FSL 1980' FWL Sec. 8-T1S-R37W 3216' KB							MDCI Jean #2-8 660' FSL 1980' FEL Sec. 8-T1S-R37W 3212' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	3170	+46	-8	3173	+43	-11	3158	+54
B/Anhydrite	3202	+14	-4	3204	+12	-6	3194	+18
Neva	3621	-405	-5	3623	-407	-7	3612	-400
Red Eagle	3685	-469	-6	3687	-471	-8	3675	-463
Foraker	3730	-514	-4	3734	-518	-8	3722	-510
Topeka	3952	-736	-3	3954	-738	-5	3945	-733
Oread	4088	-872	-6	4090	-874	-8	4078	-866
Lansing	4166	-950	-4	4167	-951	-5	4158	-946
Stark	4385	-1169	-4	4388	-1172	-7	4377	-1165
BKC	4440	-1224	-3	4443	-1227	-6	4433	-1221
Pawnee	4562	-1346	-4	4561	-1345	-3	4554	-1342
Cherokee	4650	-1434	-4	4653	-1437	-7	4642	-1430
RTD	4760						4750	-1538
LTD				4765	-1549		4751	-1539

Robert L. Milford

PETROLEUM GEOLOGIST

Wichita, Kansas

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **Murfin Drilling Company, Inc.**

LEASE **Jean #4-8**

LOC SPOT **C SE SW**

LOC FOOTAGE **660' FSL 1980' FWL**

SEC. **8** TWP **15** RANG **37W**

COUNTY **Cheyenne** STATE **KANSAS**

APR **15-02-21400-00-00**

CONTRACTOR **Murfin Drilling Co., Inc.** REG. NO. **8**

DRILLING STARTED **6-23-2014** COMPLETED **7-1-2014**

MUD DISPLAY/ABED **3.96% MUD TYPE Chemical**

DRILLING TIME KEPT FROM **3:20 TO RTD**

SAMPLES SAVED FROM **3:20 TO RTD**

SAMPLES EXAMINED FROM **3:20 TO RTD**

GEOLOGICAL SUPERVISION FROM **3:50 TO RTD**

FORMATION NAME LOG LOG DTLUM TOP DTLUM

FORMATION NAME LOG LOG DTLUM TOP DTLUM

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FORMATION NAME LOG LOG DTLUM TOP DTLUM

FORMATION NAME	LOG	LOG DTLUM	TOP DTLUM	SAMPLE
Stone Corral	3173'	+43	3170'	+46
Neva	3623'	-407	3621'	-405
Topeka	3954'	-738	3952'	-736
Oread	4090'	-874	4088'	-872
Lansing	4167'	-951	4165'	-949
Stark	4388'	-1172	4386'	-1170
B/KC	4443'	-1227	4441'	-1225
Pawnee	4561'	-1345	4559'	-1343
Cherokee	4653'	-1437	4650'	-1434
Total Depth	4765'	-1549	4760'	-1544

MEASUREMENTS FROM BOREHOLE COMPENSATED

ELEVATIONS
KB **3216'**
Straight Hole Survey @ 3518' : 0.75" Dev.
GL **3211'**

CASING RECORD
Candidate
Surface **8.5' @ 218'**
w/ 225 sacks cement
Production **1.172' @ 4765'**
w/ 450 sacks cement

ELECTRICAL SURVES
Pioneer Wireline:
Dual Induction Log
Dial Compensated -

Parosity Log
Microresistivity Log
Borehole Compensated -



DATE	7:00 AM DEPTH	REMARKS
6-23-14	0'	Spud @ 2:30 pm. Plug down @ 6:30 pm. Drilled out plug @ 2:30 am on 6-24-14 w/ PDC bit
6-24-14	560'	Cut 560' in last 24 hrs.
6-25-14	3,015'	Cut 2,455' in last 24 hrs; 21 hrs drlg. Bit trip @ 3518' (ran button bit)
6-26-14	3,755'	Cut 740' in last 24 hrs; 14.25 hrs drlg. DST #1 @ 3955'
6-27-14	3,955'	Cut 200' in last 24 hrs; 9.25 hrs drlg.
6-28-14	4,230'	Cut 275' in last 24 hrs; 15.75 hrs drlg. DST #2 @ 4242'
6-29-14	4,335'	Cut 105' in last 24 hrs; 6 hrs drlg. DST #3 @ 4386'
6-30-14	4,495'	Cut 160' in last 24 hrs; 8.75 hrs drlg. DST #4 @ 4585'
7-1-14	4,590'	Cut 95' in last 24 hrs; 8.75 hrs drlg. RTD 4760' @ 4:01 pm
7-2-14	4,760'	Cut 170' in last 24 hrs; 7.75 hrs drlg. Ran production casing.

Remarks

The electric log measurements correlate from 2' to 3' lower to the drilling measurements.

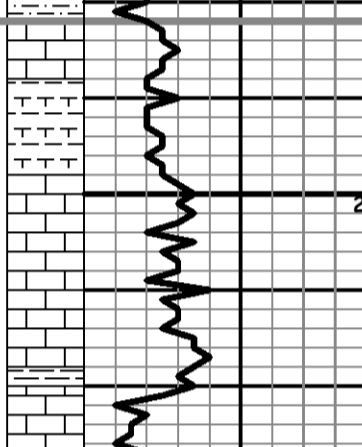
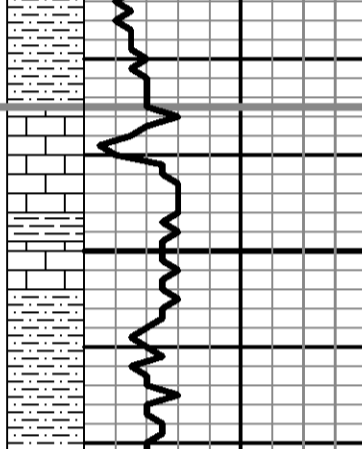
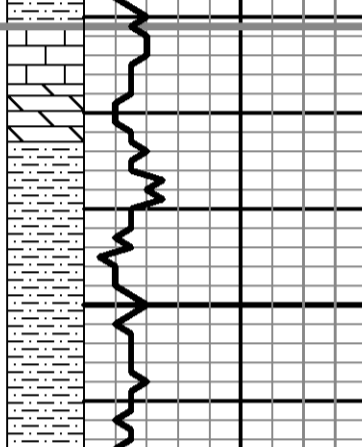
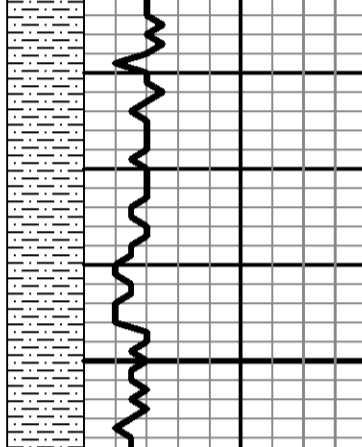
Formation tops and lithology on this report have been corrected to the electric log.

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

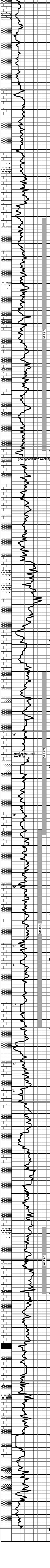
Respectfully submitted,

Robert L. Milford

Drill Stem Test Charts



LITH	DRILL TIME (MIN:FT)	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
		3150		Stone Corral 3173' (+43) EL
		3200		B/Stone Corral 3204' (+12) EL
		3500		
		3550		
		3600		
		3650		
		3700		
		3750		
		3800		
		3850		
		3900		
		3950		
		4000		
		4050		
		4100		
		4150		
		4200		
		4250		
		4300		
		4350		
		4400		
		4450		
		4500		
		4550		
		4600		
		4650		
		4700		
		4750		



Call depth 3220' @ 10:17 am on 6-25-14
Bit trip at 3518' : Replaced PDC bit with button bit.
Pipe Strap @ 3518' : Strap long 0.33'
Straight Hole Survey @ 3518' : 0.75" Dev.
Samples start 3520' @ 10:26 pm on 6-25-14

Sdy Sh: red-brn, w/ some Sh: grn & gry, & small amt of Sd: lt gry, fn-vry fn grain, some calc, semi fri-brittle, pr vis por, NS
A.A. w/ incrs amt of Sd: pr vis por, NS

Sdy Sh: red-brn, w/ small amt of Sh: grn & gry, & small amt of Sd: A.A., pr vis por, NS

Sdy Sh: red-brn, some soft & gummy, w/ some Sh: gry & grn, & small amt of Sd: A.A., pr vis por, NS

Sdy Sh: red-brn, incrs amt soft & gummy, w/ small amt Sh: gry & grn, & trace of Sd: A.A., pr vis por, NS

Sdy Sh: red-brn, some soft & gummy, w/ some Sh: gry & grn, & trace Sd: A.A., pr vis por, NS

Sdy Sh: red-brn, some soft & gummy, w/ trace grn, & small amt of Sh: drk gry

Sdy Sh: A.A. w/ small amt Sdy Sh-Shly Sd: grn, fn-vry fn grain, some calc, soft-semi brittle, pr vis por, NS

LS w/ some Dol: crm-tan gry, fxln, granular in prt, sub chky w/ some chky, pr por, NS

Sdy Sh: red-brn, soft & gummy in prt, w/ some Sh: gry & grn

A.A. w/ small amt of Shly Sd: lt gry, fn-vry fn grain, calc, soft-semi brittle, pr vis por, NS

Sdy Sh: red-brn, some soft & vry gummy, w/ small amnts of Sh gry-grn, & Sd: A.A.

Sdy Sh: red-brn, w/ some Sh: gry-grn, & some Sd: lt gry, fn-vry fn grain, sli calc, sli shly in prt, semi brittle, pr vis por, NS

LS: crm-tan, fxln, sli fos, some sdy (vry fine grain), chky (crm-org), sub chky-prtly dns w/ some chky, pr por, NS

LS: crm-tan, fxln, fos, sub chky-prtly dns, pr por, NS

Sdy Sh: red-brn, some soft & gummy, w/ small amt of Sdy Sh-Shly Sd: gry & grn, fn-vry fn grain, pr vis por, NS

Sdy Sh: red-brn, some soft & gummy, w/ small amt of Shly Sd: A.A., pr vis por, NS

LS: crm, fxln, fos, sub chky-prtly dns, pr fos por, fr amt lt-drk brn sub-sat-sat stn, S-FSFO (pin point-small beads), no odor
Calc: Sh: purple, gry

LS: gry-brn, fxln, fos, shly, prtly dns, pr por, NS

LS: crm-med gry, fxln, sli fos, sub chky-prtly dns w/ some chky, pr por, NS

LS: crm-tan, fxln, fos, sub chky-prtly dns, pr por, NS

LS: gry, fxln, sli fos, sli shly, prtly dns, pr por, NS

Sh: lt-drk gry, some calc, some red-brn

Sh: red-brn, sdy in prt, some gry & grn

LS: wh-lt gry, fxln, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS

Sh: red-brn, some sdy, some gry, w/ some Calc: Sh: gry-purple

Sh: red-brn, some sdy, some calc

Calc: Sd-Sdy LS: lt gry, vry fn grain sdy, pr por, NS

Sh: red-brn, soft & gummy in prt, some sdy, some gry & grn

LS: crm-tan, fxln, fos, sub chky-prtly dns, pr por, NS

LS: A.A.

Calc: Sh: gry, & Sh: red-brn

LS: crm-tan, fxln, fos, in prt, some shly (red-brn, mottled), sub chky-prtly dns, pr por, tr blk asph patchy stn, NSF0, no odor

LS: wh-lt gry, fxln, fos in prt, sub chky-prtly dns w/ some chky, pr por, vry scat blk tarry-asph spdt-patchy stn, NSF0, no odor

LS: crm-tan, fxln, fos-ool in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, fr amt blk w/ some brn patchy stn, NSF0, no odor
Sh: red-brn, some gry & grn

LS: crm, fxln, fos-ool, sub chky-prtly dns, pr w/ tr fr intrptl-small vulg por, fr amt brn-blk patchy-sub sat stn, S-FSFO (msty pin point-small beads & some thk-hvy oil), no odor
Sh: red-brn, some soft & gummy, some sdy

Sh: red-brn, soft & vry gummy

Ran 23 stand short trip prior to DST #1

Topeka 3954' (-738) EL

Morgan Mud check @ 3955': 44 Vis, 9.0 Wt, 6.0 WL, 600 ppm Chl, 4# LCM

LS: crm, fxln, sli fos, sub chk-prtly dns w/ some chky, pr por, tr blk asph spdt stn, NSF0, no odor
LS: A.A., w/ some tan, some shly (red-brn, mottled), sub chky-prtly dns w/ some chky, pr por, NS

LS: crm-tan, fxln, sli fos, some shly (red-brn, mottled), sub chky-prtly dns w/ some chky, pr por, tr blk asph spdt stn, NSF0, no odor
Sh: red-brn, some gry & grn

LS: wh-crm, fxln, fos in prt, some calcite fill, chky-prtly dns, pr por, NS

LS: crm-tan, fxln, fos, sub chky-prtly dns, pr por, NS

Sh: red-brn, some gry & grn, & trace of Sd: lt gry, fn-vry fn grain, calc, sli shly, soft-semi fri, pr vis por, NS

Sh: red-brn, some sdy

Sh: A.A. w/ some gry & grn, & some Sd: lt gry, fn-vry fn grain, calc, soft-semi fri, pr vis por, NS

LS: crm-tan, fxln, ool (small) in prt, sub chky-prtly dns, some pr-fr ooc por, NS

Calc: Sh: red-brn, w/ some Sh: gry, some grn

Calc: Sh: red-brn, w/ some Sh: red-brn, sli calc, soft

LS: crm-tan, fxln, fos, prtly dns, pr por, NS

Calc: Sh & Sh: A.A.

Sh: red-brn, some calc, some gry & grn

LS: wh-tan, fxln, ool (small) in prt, sub chky-prtly dns w/ some chky-vry chky, fr-gd ool (small) por, scat msty blk asph w/ some med brn spdt-patchy stn, cpl pcs w/ VSSFO, no odor

LS: crm-tan, fxln, fos, sub chky-prtly dns w/ some chky-vry chky, pr-fr fos-small vulg por, vry scat brn-blk spdt-patchy stn, tr live stn, NSF0, no odor

LS: crm-tan, fxln, sli fos, sub chky-prtly dns, pr por, NS

Sh: gry-brn, red-brn

LS: crm-tan, fxln, sli fos, sub chky-prtly dns, pr por, NS

Sh: red-brn, some sdy, some gry & grn

Sd: lt gry, fn-vry fn grain, calc, semi fri-semi brittle, pr vis por, tr blk asph spdt-patchy stn, NSF0, no odor

Sh: red-brn, soft & gummy in prt, some gry & grn

LS: crm-tan, fxln, sli fos, sub chky-prtly dns, pr w/ tr fr fos-small vulg por, scat lt-drk brn sat stn, some pcs w/ S-FSFO, no odor

LS: crm-tan, fxln, sub chky-prtly dns, pr por, NS

Sh: red-brn, some sdy, some gry & grn

Sd: lt gry, fn-vry fn grain, sli calc, semi fri-brittle, pr vis por, scat lt-drk brn sat stn, FSFO (some bleeding, some thk-hvy), frt odor

Sh: red-brn, some sdy, some soft & gummy, some gry & grn

Sh: A.A.

LS: wh-crm, fxln, fos in prt, sub chky-prtly dns w/ some chky, pr-fr w/ some gd fos-vug por, scat med-drk brn patchy-sub sat stn w/ some blk spdt stn, S-FSFO, no odor

Sh: lt gry, soft & gummy, w/ red-brn & gry

LS: crm-tan, fxln, prtly dns w/ some sub chky, pr por, NS

Sh: red-brn, some gry & grn

Sh: red-brn, some soft & gummy, some gry & grn

Sh: A.A.

LS: crm-tan, fxln, sli fos, sli pyr, sub chky-prtly dns w/ some chky, pr w/ tr fr fos-pin point por, scat blk (msty tarry) spdt stn w/ vry scat med-drk brn patchy-sub sat stn, SSFO, no odor

Sh: gry (some calc, some soft & gummy) & red-brn

LS: tan, fxln, fos, prtly dns, pr por, scat drk brn-blk patchy stn, tr semi-live stn, NSF0, no odor
Sh: red-brn & gry-grn

LS: crm-gry, fxln, sli fos, chky-prtly dns, pr por, NS

LS: crm-tan, fxln, ool-fos in prt, sub chky-prtly dns, pr por, NS

Sh: red-brn (some sdy), w/ some gry-grn

Sh: A.A.

LS: wh-crm, fxln, ool-fos in prt, vry chky-prtly dns, pr-fr w/ tr gd intrptl por, fr amt msty lt brn patchy-sub sat w/ some sat stn, FSFO, no odor. Lwr prt of zn w/ some small vulg por, drk brn-blk patchy stn, SSFO, no odor.

Sh: red-brn & gry-grn

Sdy Sh: red-brn, calc

Sh: red-brn, some gry-grn

LS: crm-tan, fxln, fos in prt, sub chky-prtly dns, pr por, NS

Sh: red-brn, gry, grn

LS: crm-tan, fxln, fos in prt, chky-prtly dns, pr por, NS

Sh: gry & red-brn, some grn

LS: crm-tan, fxln, ool in prt, sub chky-prtly dns, pr por, NS

LS: crm-tan, fxln, ool in prt, sub chky-prtly dns, pr por, NS

LS: crm-tan, fxln, sli fos, sub chky-prtly dns w/ some chky, pr por, NS

Sh: red-brn (some sdy), w/ some gry & grn, intermixed w/ some Shly Sd: red-brn, fn-med grain, sli calc, pr por, NS, & Sd: ch-crm, fn-med w/ some dns grains, sli calc, sli glauc, msty brittle, pr por, NS

Sh: red-brn & gry, w/ some grn, yell, maroon, w/ small amt of Sd: A.A., pr por, NS

A.A.

Ran 10 stand short trip @ 4760' after cFS

R.T.D. 4760' (-1544)
L.T.D. 4765' (-1549)
Straight Hole Survey @ 4760' : 0.75" Dev.



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Jean #4-8

8-1s-37w Cheyenne,KS

Start Date: 2014.06.27 @ 01:25:00

End Date: 2014.06.27 @ 09:20:30

Job Ticket #: 53691 DST #: 1

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

Printed: 2014.07.07 @ 10:00:59



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling CO INC
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

8-1s-37w Cheyenne,KS

Jean #4-8

Job Ticket: 53691

DST#: 1

Test Start: 2014.06.27 @ 01:25:00

GENERAL INFORMATION:

Formation: **Stotler**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:12:00
 Time Test Ended: 09:20:30
 Interval: **3781.00 ft (KB) To 3955.00 ft (KB) (TVD)**
 Total Depth: 3955.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Robert Zodrow
 Unit No: 66
 Reference Elevations: 3216.00 ft (KB)
 3211.00 ft (CF)
 KB to GR/CF: 5.00 ft

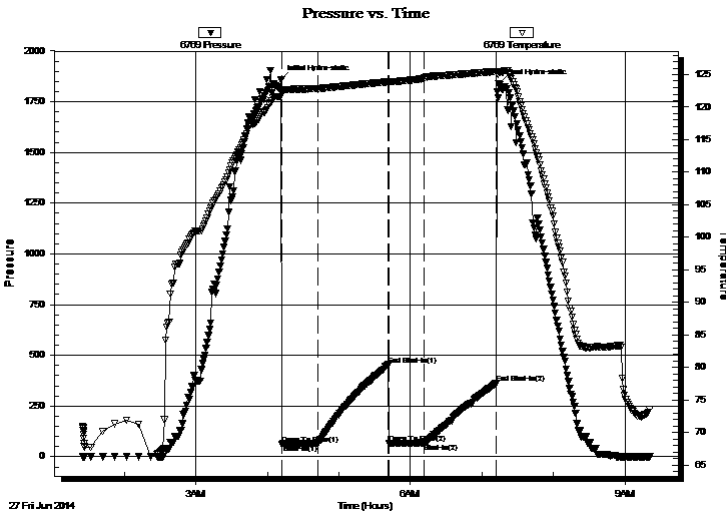
Serial #: 6769

Outside

Press@RunDepth: 67.41 psig @ 3782.00 ft (KB)
 Start Date: 2014.06.27 End Date: 2014.06.27
 Start Time: 01:25:05 End Time: 09:20:29
 Capacity: 8000.00 psig
 Last Calib.: 2014.06.27
 Time On Btm: 2014.06.27 @ 04:11:30
 Time Off Btm: 2014.06.27 @ 07:14:00

TEST COMMENT: 30-IF- Blow built to 3/4"
 60-ISI- No return
 30-FF- No blow
 60-FSI- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.68	121.64	Initial Hydro-static
1	62.79	122.20	Open To Flow (1)
31	62.64	122.84	Shut-In(1)
90	453.92	123.90	End Shut-In(1)
91	65.28	123.85	Open To Flow (2)
120	67.41	124.51	Shut-In(2)
181	361.83	125.49	End Shut-In(2)
183	1838.64	125.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	mud 100%m	0.34

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 53691

DST#: 1

ATTN: Rocky Milford

Test Start: 2014.06.27 @ 01:25:00

Tool Information

Drill Pipe:	Length: 3592.00 ft	Diameter: 3.88 inches	Volume: 52.53 bbl	Tool Weight: 2500.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 53.44 bbl</u>	Tool Chased 6.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3781.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	174.00 ft			
Tool Length:	202.00 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			3754.00	
Shut In Tool	5.00			3759.00	
Hydraulic tool	5.00			3764.00	
Jars	5.00			3769.00	
Safety Joint	3.00			3772.00	
Packer	5.00			3777.00	28.00 Bottom Of Top Packer
Packer	4.00			3781.00	
Stubb	1.00			3782.00	
Recorder	0.00	6769	Outside	3782.00	
Recorder	0.00	8521	Inside	3782.00	
Perforations	9.00			3791.00	
Change Over Sub	1.00			3792.00	
Drill Pipe	157.00			3949.00	
Change Over Sub	1.00			3950.00	
Bullnose	5.00			3955.00	174.00 Bottom Packers & Anchor

Total Tool Length: 202.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 53691

DST#: 1

ATTN: Rocky Milford

Test Start: 2014.06.27 @ 01:25:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	mud 100%m	0.344

Total Length: 70.00 ft Total Volume: 0.344 bbl

Num Fluid Samples: 0

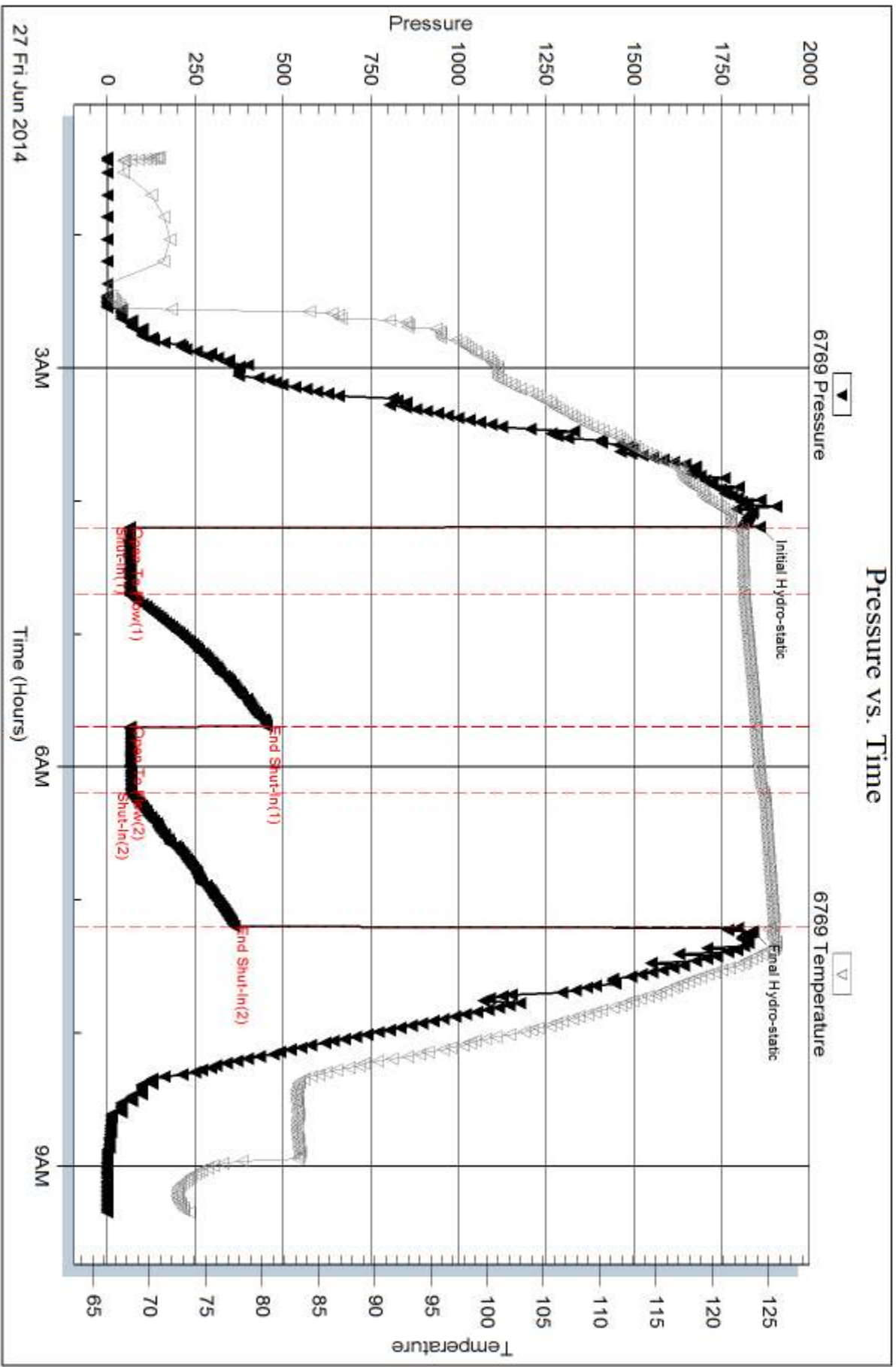
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



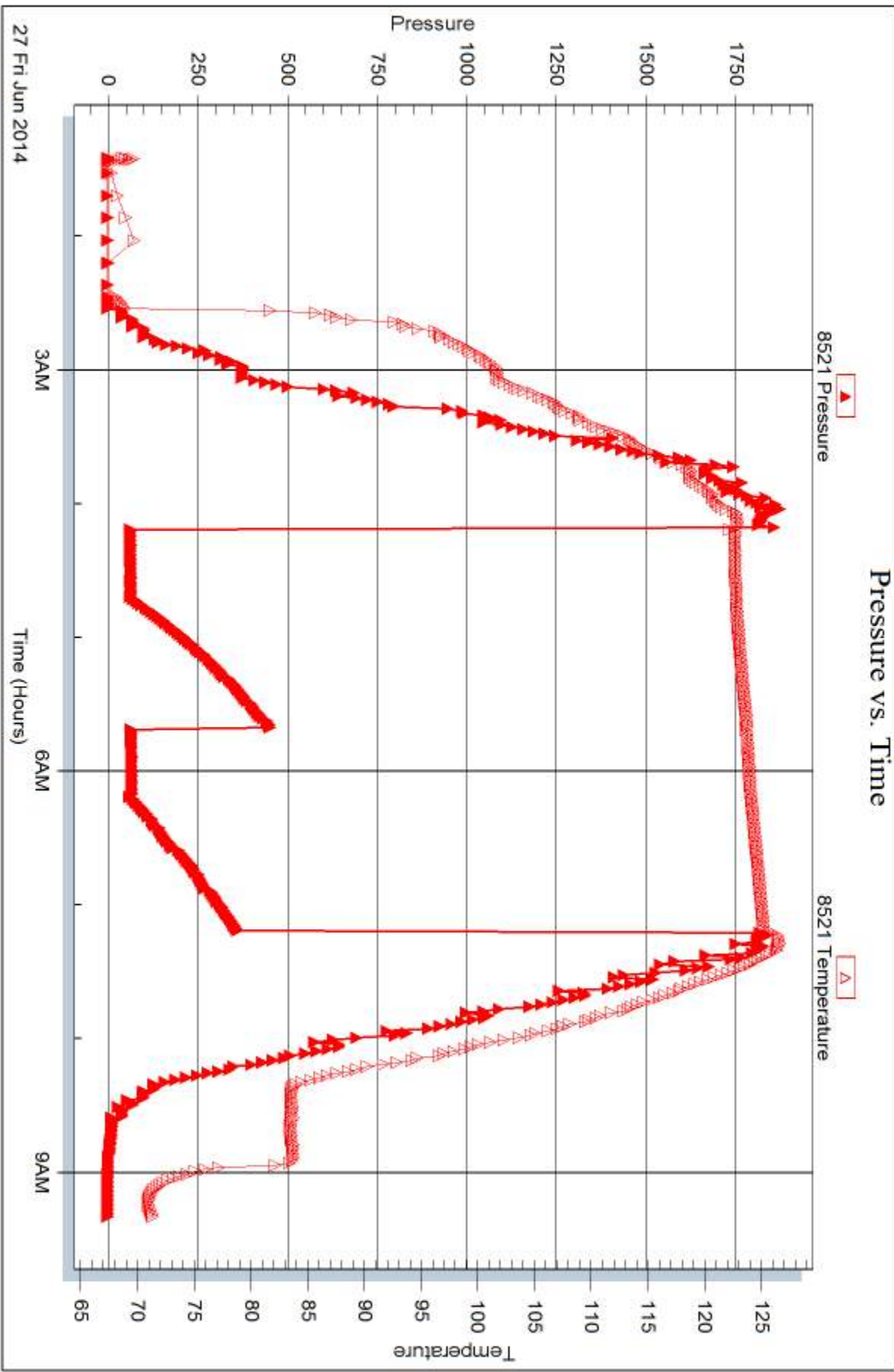
Serial #: 8521

Inside

Murfin Drilling CO INC

Jean #4-8

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 53891

Printed: 2014.07.07 @ 10:01:00



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Jean #4-8

8-1s-37w Cheyenne,KS

Start Date: 2014.06.28 @ 12:10:00

End Date: 2014.06.28 @ 21:02:00

Job Ticket #: 53692 DST #: 2

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

Printed: 2014.07.07 @ 10:00:39

Murfin Drilling CO INC
8-1s-37w Cheyenne,KS
Jean #4-8
DST # 2
LKC "A-D"
2014.06.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling CO INC
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

8-1s-37w Cheyenne,KS

Jean #4-8

Job Ticket: 53692

DST#: 2

Test Start: 2014.06.28 @ 12:10:00

GENERAL INFORMATION:

Formation: **LKC "A-D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:37:30
 Time Test Ended: 21:02:00
 Interval: **4120.00 ft (KB) To 4242.00 ft (KB) (TVD)**
 Total Depth: 4242.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Robert Zodrow
 Unit No: 66
 Reference Elevations: 3216.00 ft (KB)
 3211.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6769

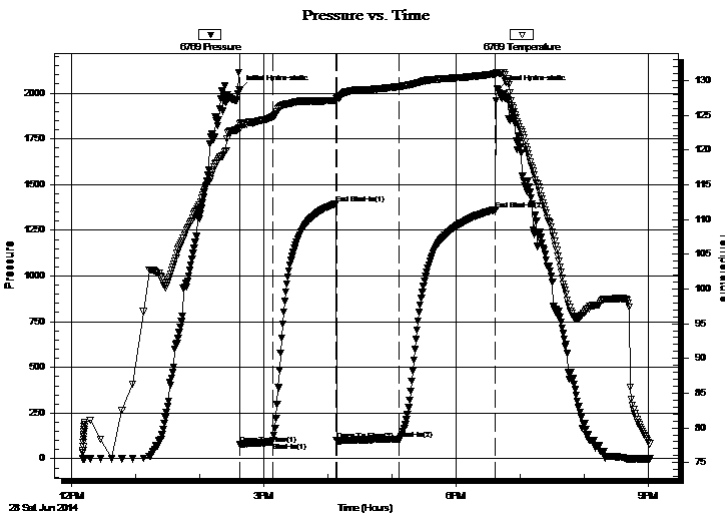
Outside

Press@RunDepth: 106.89 psig @ 4121.00 ft (KB)
 Start Date: 2014.06.28 End Date: 2014.06.28
 Start Time: 12:10:05 End Time: 21:02:00

Capacity: 8000.00 psig
 Last Calib.: 2014.06.28
 Time On Btm: 2014.06.28 @ 14:37:00
 Time Off Btm: 2014.06.28 @ 18:39:30

TEST COMMENT: 30-IF- Blow built to 2"
 60-ISI- No return
 30-FF- Blow built to 4 1/2"
 60-FSI- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2017.82	122.98	Initial Hydro-static
1	77.69	123.75	Open To Flow (1)
31	92.76	124.77	Shut-In(1)
91	1396.19	127.13	End Shut-In(1)
91	99.56	127.44	Open To Flow (2)
150	106.89	129.14	Shut-In(2)
240	1362.72	130.95	End Shut-In(2)
243	2017.50	131.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
205.00	gmco 10%g 40%m 50%o	1.20

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 53692

DST#: 2

ATTN: Rocky Milford

Test Start: 2014.06.28 @ 12:10:00

Tool Information

Drill Pipe:	Length: 3941.00 ft	Diameter: 3.88 inches	Volume: 57.63 bbl	Tool Weight: 2500.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 58.54 bbl</u>	Tool Chased 8.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4120.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	122.00 ft			
Tool Length:	150.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: took on mud chasing tool to bottom

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4093.00	
Shut In Tool	5.00			4098.00	
Hydraulic tool	5.00			4103.00	
Jars	5.00			4108.00	
Safety Joint	3.00			4111.00	
Packer	5.00			4116.00	28.00 Bottom Of Top Packer
Packer	4.00			4120.00	
Stubb	1.00			4121.00	
Recorder	0.00	6769	Outside	4121.00	
Recorder	0.00	8521	Inside	4121.00	
Perforations	20.00			4141.00	
Change Over Sub	1.00			4142.00	
Drill Pipe	94.00			4236.00	
Change Over Sub	1.00			4237.00	
Bullnose	5.00			4242.00	122.00 Bottom Packers & Anchor

Total Tool Length: 150.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 53692

DST#: 2

ATTN: Rocky Milford

Test Start: 2014.06.28 @ 12:10:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
205.00	gmco 10%g 40%m 50%o	1.202

Total Length: 205.00 ft Total Volume: 1.202 bbl

Num Fluid Samples: 0

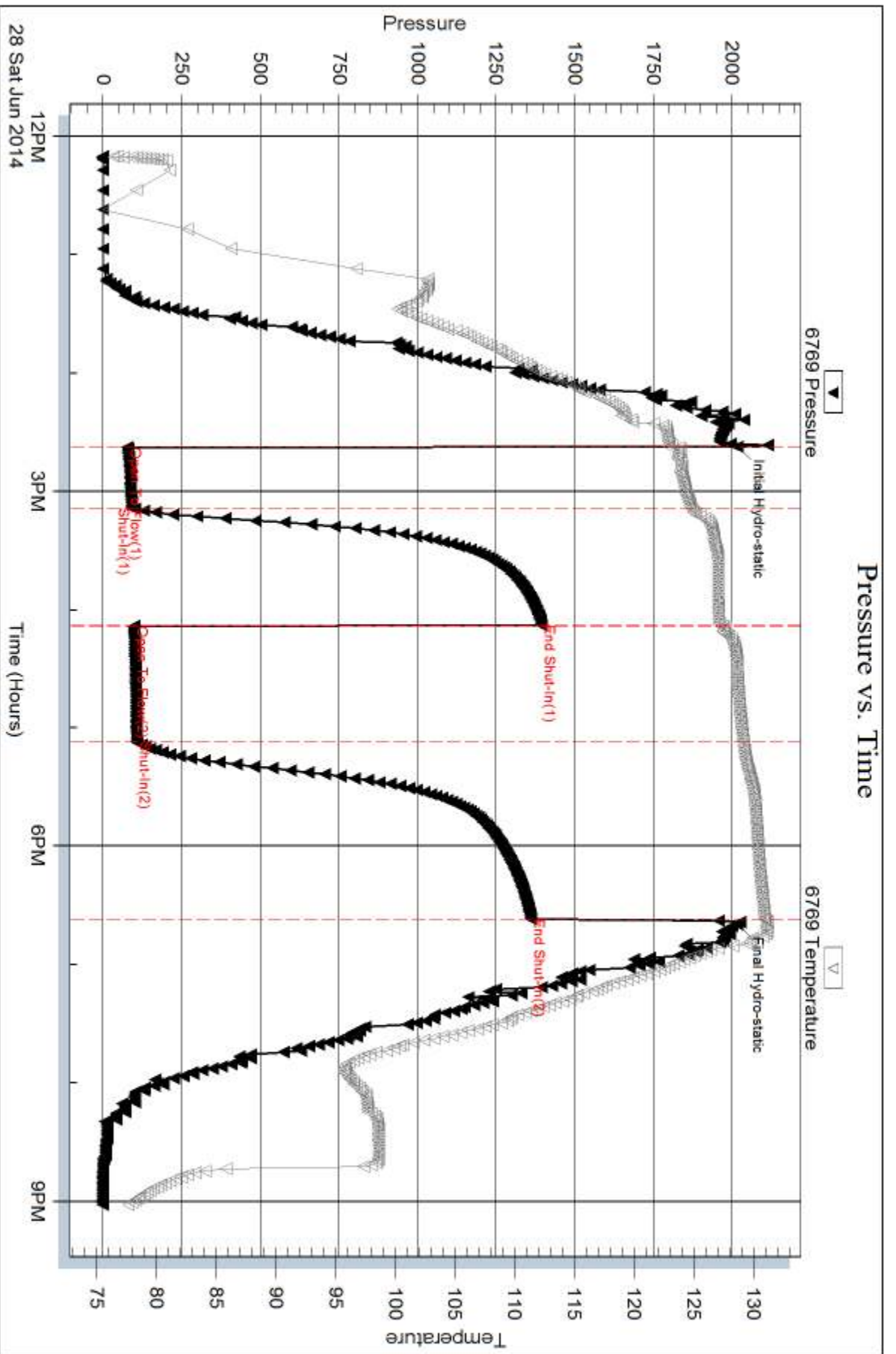
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



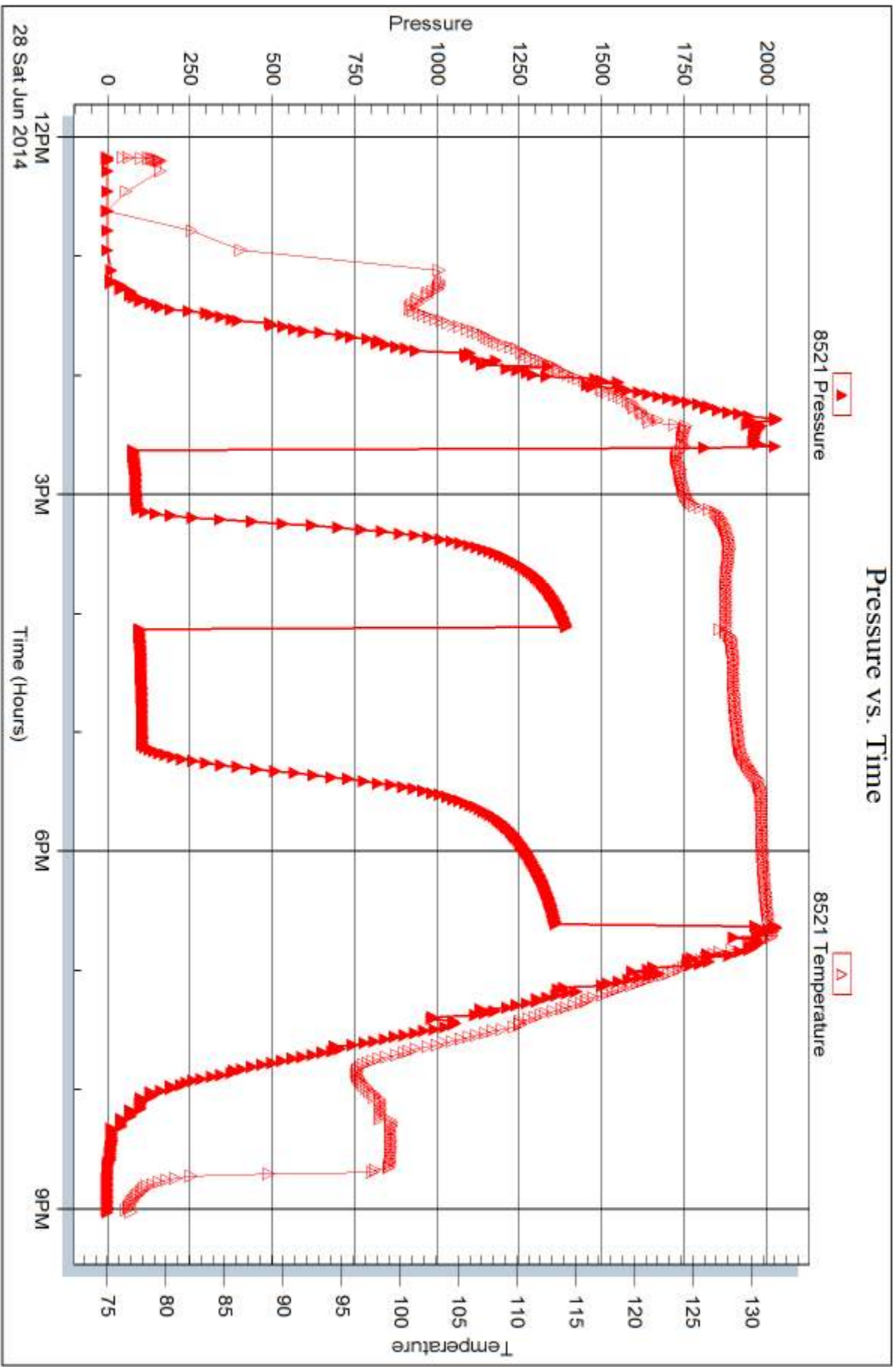
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Inside

Murfin Drilling CO INC

Jean #4-8

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53892

Printed: 2014.07.07 @ 10:00:41



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Jean #4-8

8-1s-37w Cheyenne,KS

Start Date: 2014.06.29 @ 12:43:00

End Date: 2014.06.29 @ 21:20:30

Job Ticket #: 58232 DST #: 3

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

Printed: 2014.07.07 @ 10:00:15



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling CO INC
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

8-1s-37w Cheyenne,KS

Jean #4-8

Job Ticket: 58232

DST#: 3

Test Start: 2014.06.29 @ 12:43:00

GENERAL INFORMATION:

Formation: **LKC G-J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:17:30
 Tester: Kevin Mack
 Time Test Ended: 21:20:30
 Unit No: 66
 Interval: **4238.00 ft (KB) To 4386.00 ft (KB) (TVD)**
 Reference Elevations: 3216.00 ft (KB)
 Total Depth: 4386.00 ft (KB) (TVD)
 3211.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 5.00 ft

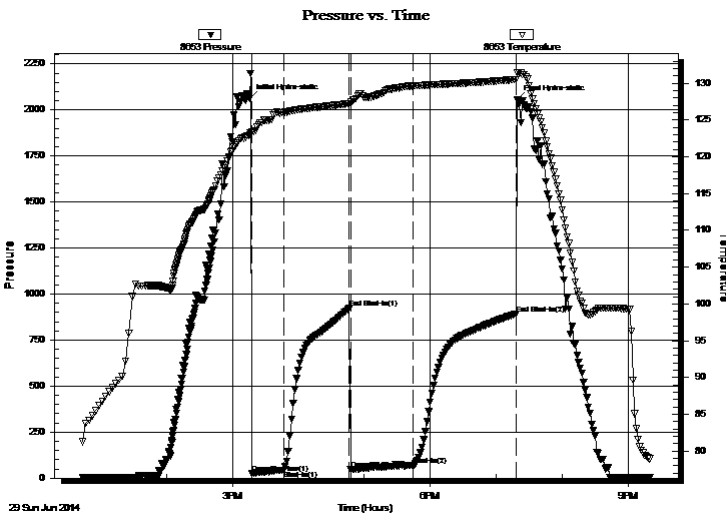
Serial #: 8653

Outside

Press@RunDepth: 69.63 psig @ 4239.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.06.29 End Date: 2014.06.29 Last Calib.: 2014.06.29
 Start Time: 12:44:00 End Time: 21:20:30 Time On Btm: 2014.06.29 @ 15:16:00
 Time Off Btm: 2014.06.29 @ 19:19:00

TEST COMMENT: 30 - IF- 1/4" Blow built to 1 1/4"
 60 - IS- No Return
 60 - FF- Surface Blow started at 10 min. Built to 1/4"
 90 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.96	122.96	Initial Hydro-static
2	25.33	123.38	Open To Flow (1)
31	42.92	126.00	Shut-In(1)
91	924.71	127.23	End Shut-In(1)
92	48.42	127.24	Open To Flow (2)
148	69.63	129.62	Shut-In(2)
242	890.37	130.50	End Shut-In(2)
243	2054.33	131.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	OSM 100M (oil spots)	0.39

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 58232

DST#: 3

ATTN: Rocky Milford

Test Start: 2014.06.29 @ 12:43:00

Tool Information

Drill Pipe:	Length: 4040.00 ft	Diameter: 3.80 inches	Volume: 56.67 bbl	Tool Weight: 2500.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 57.58 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4238.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	148.00 ft			
Tool Length:	176.00 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			4211.00	
Shut In Tool	5.00			4216.00	
Hydraulic tool	5.00			4221.00	
Jars	5.00			4226.00	
Safety Joint	3.00			4229.00	
Packer	5.00			4234.00	28.00 Bottom Of Top Packer
Packer	4.00			4238.00	
Packer - Shale	0.00			4238.00	
Stubb	1.00			4239.00	
Recorder	0.00	8653	Outside	4239.00	
Recorder	0.00	8874	Inside	4239.00	
Perforations	15.00			4254.00	
Change Over Sub	1.00			4255.00	
Drill Pipe	125.00			4380.00	
Change Over Sub	1.00			4381.00	
Bullnose	5.00			4386.00	148.00 Bottom Packers & Anchor
Total Tool Length:	176.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 58232

DST#: 3

ATTN: Rocky Milford

Test Start: 2014.06.29 @ 12:43:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	OSM 100M (oil spots)	0.393

Total Length: 80.00 ft Total Volume: 0.393 bbl

Num Fluid Samples: 0

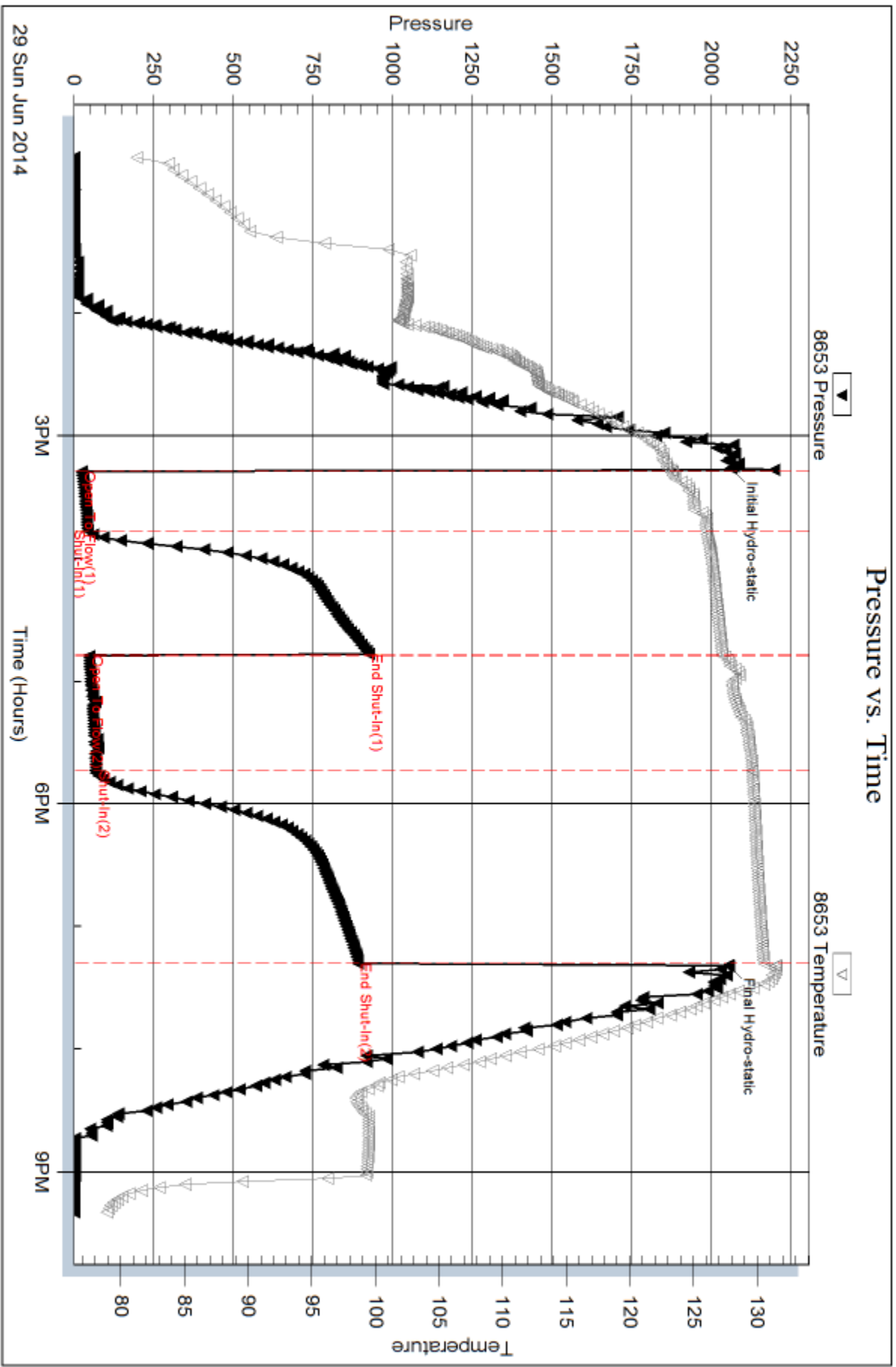
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



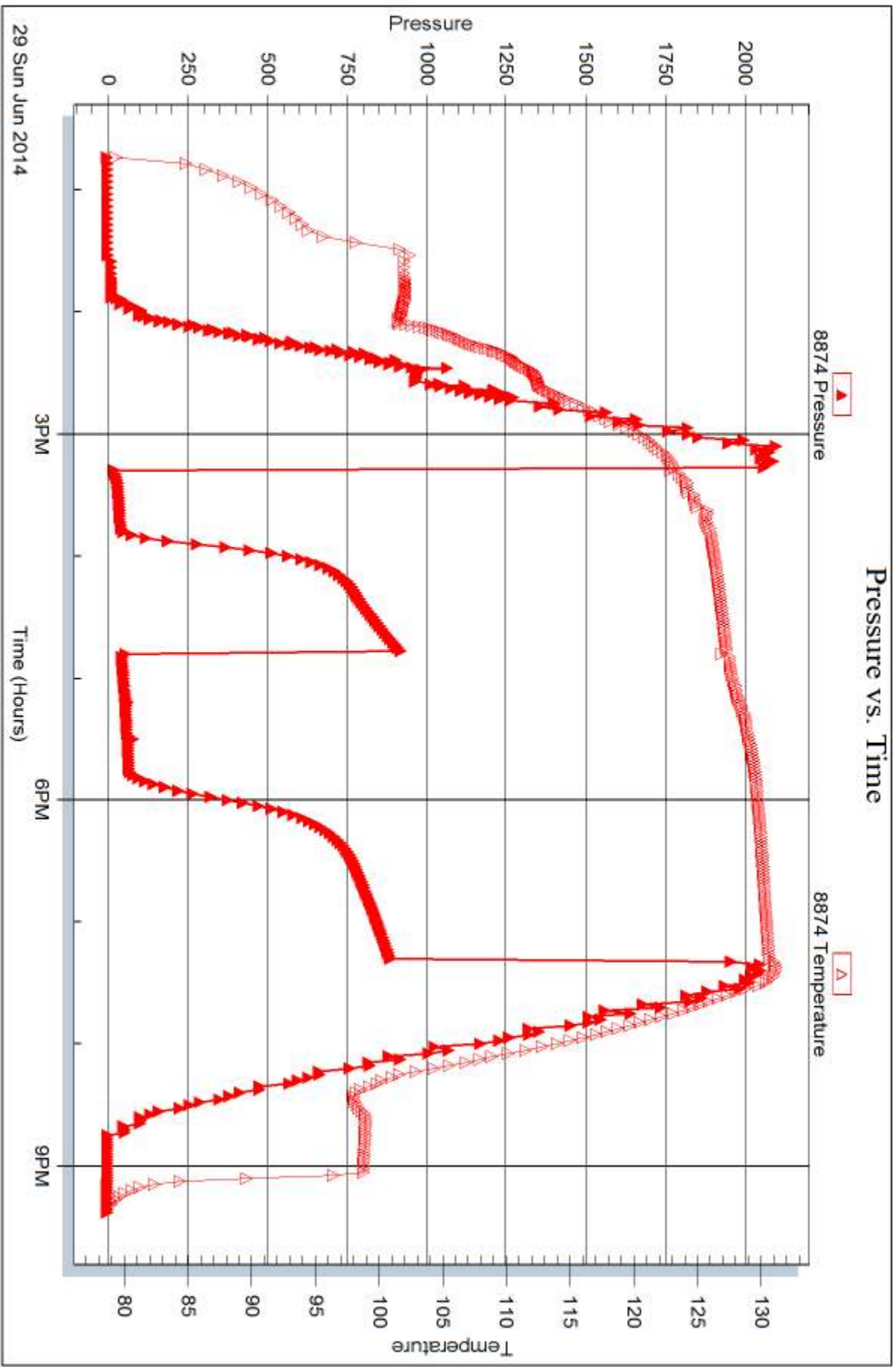
Serial #: 8874

Inside

Murfin Drilling CO INC

Jean #4-8

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58232

Printed: 2014.07.07 @ 10:00:16



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Jean #4-8

8-1s-37w Cheyenne,KS

Start Date: 2014.06.30 @ 06:21:00

End Date: 2014.06.30 @ 15:09:30

Job Ticket #: 58233 DST #: 4

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

Printed: 2014.07.07 @ 09:59:30

Murfin Drilling CO INC
8-1s-37w Cheyenne,KS
Jean #4-8
DST # 4
Pawnee
2014.06.30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 58233

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.06.30 @ 06:21:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:24:30

Time Test Ended: 15:09:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4535.00 ft (KB) To 4585.00 ft (KB) (TVD)

Total Depth: 4585.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3216.00 ft (KB)

3211.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 62.96 psig @ 4536.00 ft (KB)

Start Date: 2014.06.30

End Date:

2014.06.30

Start Time: 06:22:00

End Time:

15:09:30

Capacity: 8000.00 psig

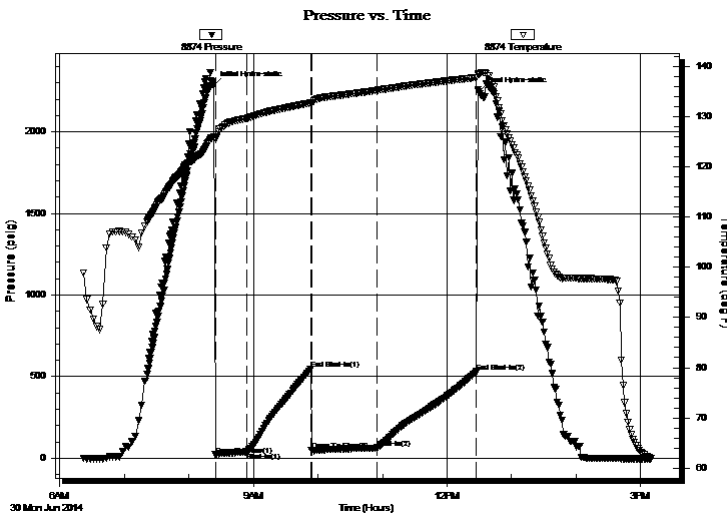
Last Calib.: 2014.06.30

Time On Btm: 2014.06.30 @ 08:23:00

Time Off Btm: 2014.06.30 @ 12:29:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 3"
60 - IS- No Return
60 - FF- Surface Blow built 3 1/4"
90 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2282.79	125.99	Initial Hydro-static
2	20.81	125.57	Open To Flow (1)
31	39.32	129.66	Shut-In(1)
90	545.32	132.71	End Shut-In(1)
91	48.35	132.57	Open To Flow (2)
152	62.96	135.22	Shut-In(2)
245	530.45	137.78	End Shut-In(2)
247	2246.35	138.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 60M 40o	0.30
63.00	Clean Gassy Oil 10G 90o	0.31

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 58233

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.06.30 @ 06:21:00

Tool Information

Drill Pipe:	Length: 4352.00 ft	Diameter: 3.80 inches	Volume: 61.05 bbl	Tool Weight: 2500.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 61.96 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4535.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 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			4508.00	
Shut In Tool	5.00			4513.00	
Hydraulic tool	5.00			4518.00	
Jars	5.00			4523.00	
Safety Joint	3.00			4526.00	
Packer	5.00			4531.00	28.00 Bottom Of Top Packer
Packer	4.00			4535.00	
Packer - Shale	0.00			4535.00	
Stubb	1.00			4536.00	
Recorder	0.00	8653	Outside	4536.00	
Recorder	0.00	8874	Inside	4536.00	
Perforations	10.00			4546.00	
Change Over Sub	1.00			4547.00	
Drill Pipe	32.00			4579.00	
Change Over Sub	1.00			4580.00	
Bullnose	5.00			4585.00	50.00 Bottom Packers & Anchor
Total Tool Length:	78.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

8-1s-37w Cheyenne,KS

250 N Water STE 300
Wichita KS 67202

Jean #4-8

Job Ticket: 58233

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.06.30 @ 06:21:00

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:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	OCM 60M 40o	0.295
63.00	Clean Gassy Oil 10G 90o	0.310

Total Length: 123.00 ft Total Volume: 0.605 bbl

Num Fluid Samples: 0

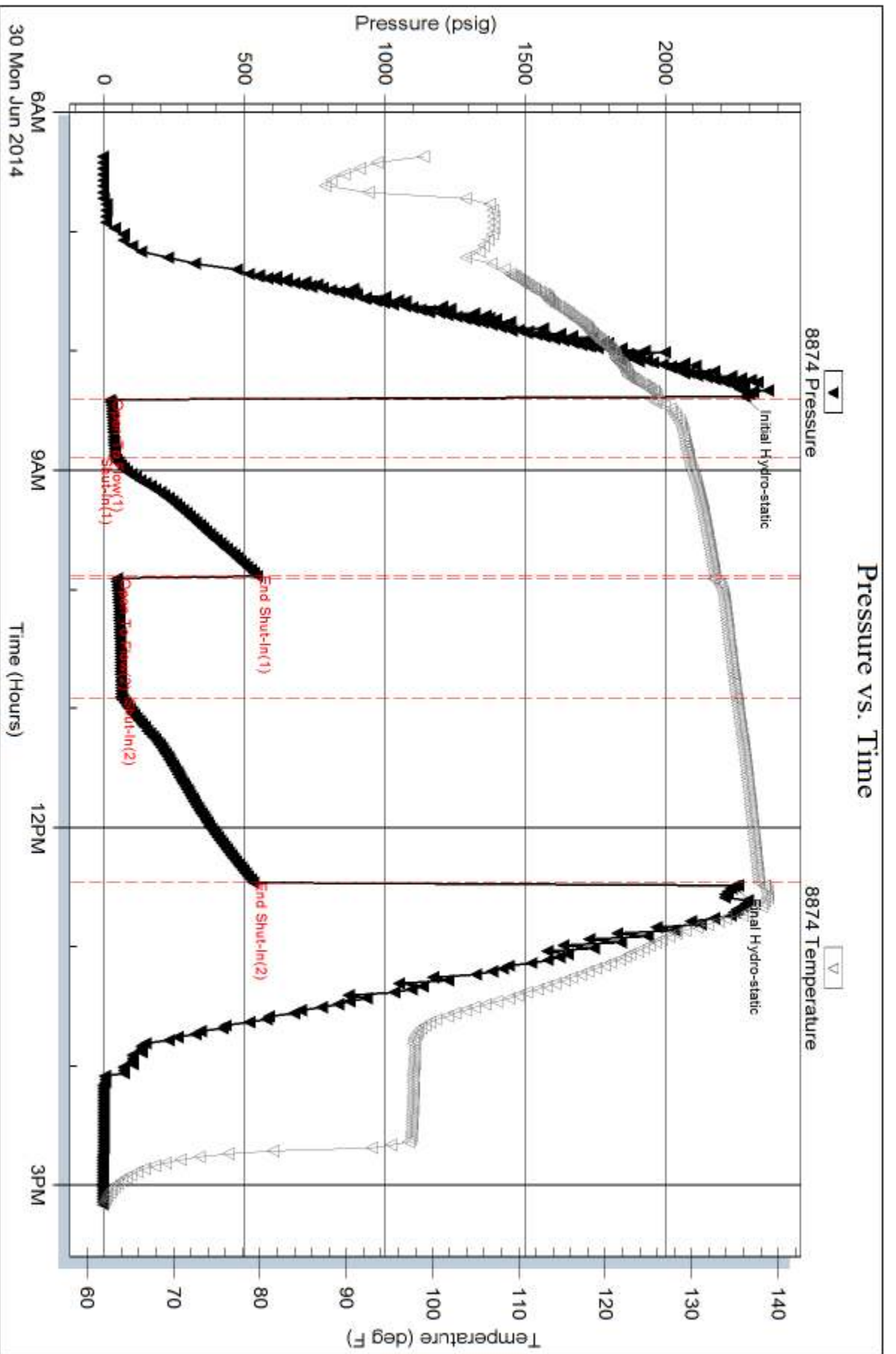
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API 33 @ 80 deg = 31 corrected

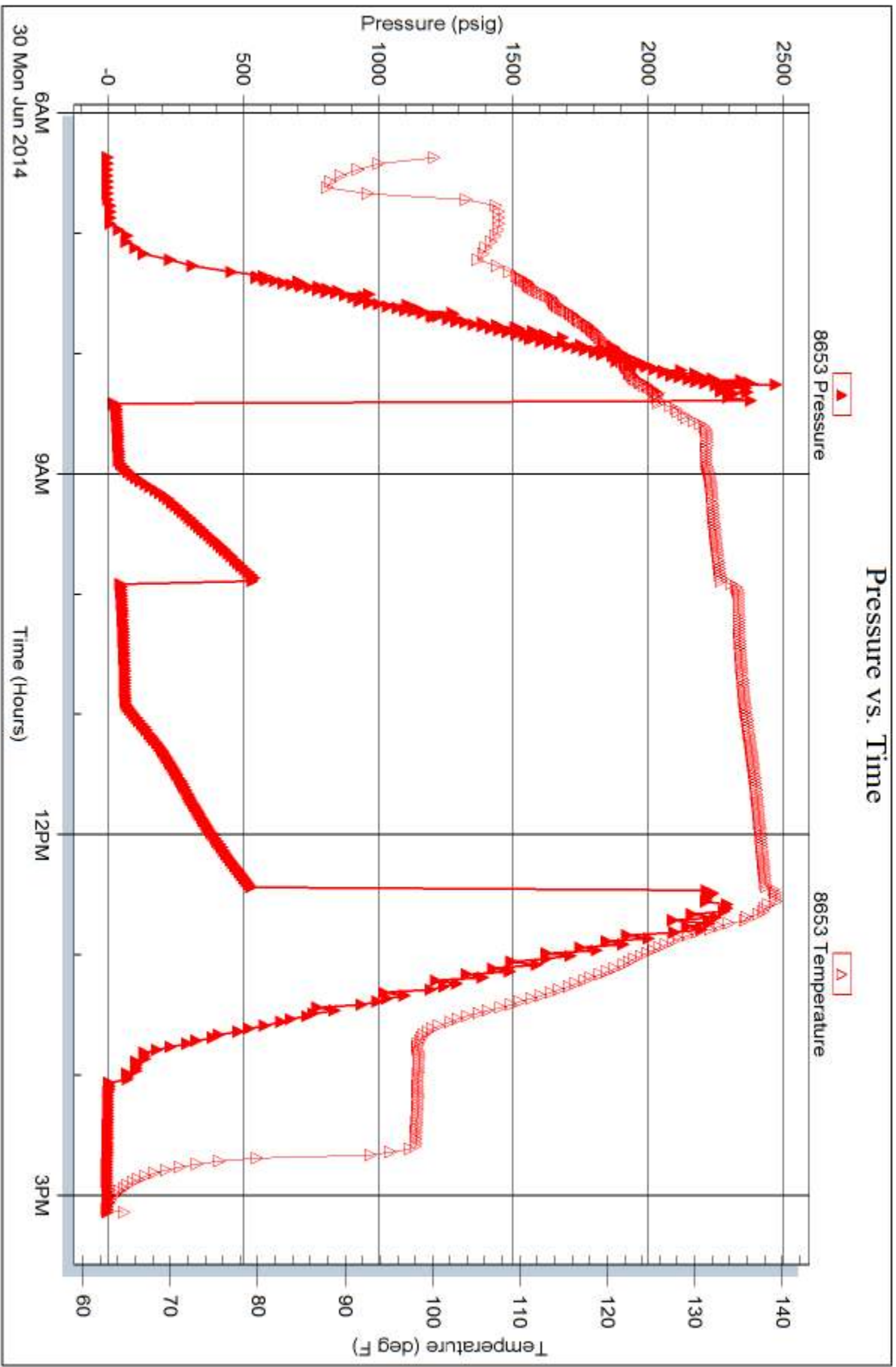


Serial #: 8653

Outside Murfin Drilling CO INC

Jean #4-8

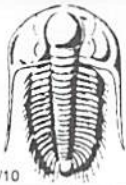
DST Test Number: 4



Triobite Testing, Inc

Ref. No: 58233

Printed: 2014.07.07 @ 09:59:31



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53691

Well Name & No. Jean #4-8 Test No. 1 Date 6-27-2014
 Company MURFIN DRILLING CO, INC Elevation ~~3200~~ 3216 KB 3211 GL
 Address 250 N WATER ST E 300 WICHITA KS, 67202
 Co. Rep / Geo. Rocky Millford Rig MURFIN #8
 Location: Sec. 8 Twp. 15 Rge. 37W Co. Cheyenne State KS

Interval Tested 3781 - 3955 Zone Tested STOTLER
 Anchor Length 174 Drill Pipe Run 3592 Mud Wt. 8.9
 Top Packer Depth 3777 Drill Collars Run 185 Vis 51
 Bottom Packer Depth 3781 shale Wt. Pipe Run 0 WL 6.0
 Total Depth 3955 Chlorides 600 ppm System LCM 4.0
 Blow Description IF - Blow bailed to 3/4"
ISE - NO return
FP - NO blow
PSI - NO return

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>Mud</u>			<u>100</u>	

Rec Total 70 BHT 125 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1859 Test 1150 T-On Location 12:25 6-27
 (B) First Initial Flow 63 Jars 250 T-Started 01:25 6-27
 (C) First Final Flow 63 Safety Joint 75 T-Open 09:12 6-27
 (D) Initial Shut-In 454 Circ Sub _____ T-Pulled 07:12 6-27
 (E) Second Initial Flow 65 Hourly Standby _____ T-Out 09:20 6-27
 (F) Second Final Flow 67 Mileage 134 RT 207.70 Comments _____
 (G) Final Shut-In 362 Sampler _____
 (H) Final Hydrostatic 1839 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer 250 Sub Total 0
 Initial Shut-In 60 Extra Packer _____ Total 1932.70
 Final Flow 30 Extra Recorder _____ MP/DST Disc't _____
 Final Shut-In 60 Day Standby _____
 Accessibility _____
 Sub Total 1932.70

Approved By Rocky Millford Our Representative Robert Zochow
 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. 53692

Well Name & No. Jean # 4-8 Test No. 2 Date 6-28-2014
 Company MURFIN DRILLING CO, Inc. Elevation 3216 KB 3211 GL
 Address 250 N Water STE 300 Wichita KS, 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 8 Twp. 25 Rge. 37W Co. Cheyenne State KS

Interval Tested 4120 - 4242 Zone Tested LKC "A-D"
 Anchor Length 122 Drill Pipe Run 3941 Mud Wt. 9.1
 Top Packer Depth 4116 Drill Collars Run 185 Vis 55
 Bottom Packer Depth 4120 Wt. Pipe Run 0 WL 5-2
 Total Depth 4242 Chlorides 700 ppm System LCM 4.0

Blow Description IF - Blow built to 2"
ISI - No return
FF - Blow built to 4 1/2
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
205	205 9MCO	10	50	40	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 205 BHT 131 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2018 Test 1250 T-On Location 11:30 6-28
 (B) First Initial Flow 78 Jars 250 T-Started 12:10 6-28
 (C) First Final Flow 93 Safety Joint 75 T-Open 14:37 6-28
 (D) Initial Shut-In 1396 Circ Sub _____ T-Pulled 18:37 ~~20:00~~ 6-28
 (E) Second Initial Flow 100 Hourly Standby _____ T-Out 21:02 6-28
 (F) Second Final Flow 107 Mileage 134 RT 207.70 Comments Chased Tool
 (G) Final Shut-In 1363 Sampler _____ 8' after open Tool
 (H) Final Hydrostatic 2017 Straddle _____ on some mud
 Shale Packer _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 75

Initial Open 30
 Initial Shut-In 60
 Final Flow 60 Day Standby 1d 2.25h Total 1857.70
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1782.70

Approved By Rocky Milford Our Representative Robert Zochew

Trilobite Testing Inc. shall not be liable for damaged or 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. 58232

4/10

Well Name & No. Jean #4-8 Test No. 3 Date 6-29-14
 Company Murphy Drilling Co., Inc. Elevation 3216 KB 3211 GL
 Address 250 N Water STE # 3000 Wichita KS, 67202
 Co. Rep / Geo. Rocky Milford Rig Murphy #8
 Location: Sec. 8 Twp. 15 Rge. 37W Co. Cheyenne State KS

Interval Tested 4238-4386 Zone Tested LKC "G-5"
 Anchor Length 148' Drill Pipe Run 4040 Mud Wt. 9.1
 Top Packer Depth 4234 Drill Collars Run 185' Vis 60
 Bottom Packer Depth 4238 Wt. Pipe Run 8 WL 5.2
 Total Depth 4386 Chlorides 7000 ppm System LCM 5#
 Blow Description IF - 1/4" Blow built to 1/4"
ISI - No Return
FF - Surface Blow started at 10 min. Built to 1/4"
FSL - No Return

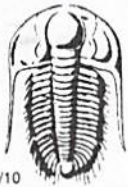
Rec	Feet of	%gas	spots	%oil	%water	%mud
<u>800</u>	<u>OSM</u>				<u>1000</u>	
Rec	Feet of	%gas		%oil	%water	%mud
Rec	Feet of	%gas		%oil	%water	%mud
Rec	Feet of	%gas		%oil	%water	%mud
Rec	Feet of	%gas		%oil	%water	%mud

Rec Total 800 BHT 131 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2062 Test 1250 T-On Location 12:30 PM
 (B) First Initial Flow 25 Jars 250 T-Started 12:43 PM
 (C) First Final Flow 42 Safety Joint 75 T-Open 3:18 PM
 (D) Initial Shut-In 924 Circ Sub _____ T-Pulled 7:18 PM
 (E) Second Initial Flow 48 Hourly Standby _____ T-Out 9:30 PM
 (F) Second Final Flow 69 Mileage 134 RT 207.70 Comments _____
 (G) Final Shut-In 890 Sampler _____
 (H) Final Hydrostatic 2054 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 2032.70
 Accessibility _____ MP/DST Disc't _____
 Sub Total 2032.70

Approved By _____ 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. 58233

4/10

Well Name & No. Jean #4-8 Test No. 4 Date 6-30-14
 Company Murkin Drilling Co., Inc. Elevation 3216 KB 3211 GL
 Address 250 N Water STE # 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murkin #8
 Location: Sec. 8 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4535-4585 Zone Tested Pawnee
 Anchor Length 50' Drill Pipe Run 4352 Mud Wt. 9.3
 Top Packer Depth 4531 Drill Collars Run 185 Vis 65
 Bottom Packer Depth 4535 Wt. Pipe Run Ø WL 6.0
 Total Depth 4585 Chlorides 700 ppm System LCM 4#
 Blow Description IF- 1/4" Blow built to 3"
ISI- NO Return
FF- Surface Blow built to
PSI- NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>63</u>	<u>Clean Gassy Oil</u>	<u>10</u>	<u>90</u>		
<u>60</u>	<u>CCM</u>		<u>40</u>		<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 123' BHT 138 Gravity 31 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2282 Test 1250 T-On Location 6:20 PM
 (B) First Initial Flow 20 Jars 250 T-Started 6:21 PM
 (C) First Final Flow 39 Safety Joint 75 T-Open 8:25 PM
 (D) Initial Shut-In 545 Circ Sub _____ T-Pulled 12:25 AM
 (E) Second Initial Flow 48 Hourly Standby _____ T-Out 3:10 AM
 (F) Second Final Flow 62 Mileage 134 RT 207.70 Comments Oil API 33 @ 100
 (G) Final Shut-In 530 Sampler _____
 (H) Final Hydrostatic 2246 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 2032.70
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 2032.70

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