



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1102947  
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: \_\_\_\_\_



1102947

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  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:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

December 04, 2012

Leon Rodak  
Murfin Drilling Co., Inc.  
250 N WATER STE 300  
WICHITA, KS 67202-1216

Re: ACO1  
API 15-039-21156-00-00  
Brewer 1-18  
NW/4 Sec.18-02S-29W  
Decatur County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Leon Rodak

	MDCI Brewer #1-18 2300' FNL 2100' FWL Sec. 18-T2S-R29W 2795' KB						MDCI Lohoefener #1-18 2300' FNL 2300' FEL Sec. 18-T2S-R29W 2786' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2550	+245	-5	2547	+248	-2	2539	+250
B/Anhydrite	2580	+215	-2	2578	+217	Flat	2569	+217
Neva	3210	-415	-1	3206	-411	+3	3200	-414
Red Eagle	3280	-485	Flat	3279	-484	+1	3271	-485
Topeka	3596	-801	-1	3594	-799	+1	3586	-800
Heebner	3757	-962	-1	3753	-958	+3	3747	-961
Lansing	3802	-1007	-1	3800	-1005	+1	3792	-1006
Lansing D	3837	-1042	-1	3830	-1035	+6	3827	-1041
Lansing G	3880	-1085	+3	3878	-1083	+5	3874	-1088
Lansing H	3913	-1118	+2	3910	-1115	+5	3906	-1120
Lansing J	3948	-1153	+1	3943	-1148	+4	3938	-1152
Stark	3965	-1170	+1	3961	-1166	+5	3957	-1171
Lansing K	3978	-1183	+1	3976	-1181	+3	3970	-1184
BKC	4008	-1213	----	4008	-1213	Flat	3999	-1213
RTD	4080						4070	
LTD				4079			4070	

# Jeff Christian

PETROLEUM GEOLOGIST  
Wichita, Kansas

## GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOGS

OPERATOR **MURKIN DRILLING COMPANY**  
LEASE **BREWER # 1-18**

LOCATION **2300' FWL & 2100' FWL**

SEC. **18** TWP. **2 S** RING. **29 W**

COUNTY **DECATUR** STATE **KANSAS**

API **15-039-21156**

CONTRACTOR **COMPANY TOOLS** RIG NO. **8**

DRILLING STARTED **8/10/2012** COMPLETED **8/16/2012**

MUD DISPLACED **2930** MUD TYPE **CHEMICAL**

DRILLING TIME LEFT FROM **3100'** TO **RTD**

SAMPLES SAVED FROM **3100'** TO **RTD**

SAMPLES EXAMINED FROM **3100'** TO **RTD**

GEOLOGICAL SUPERVISION FROM **3430'** TO **RTD**

FORMATION NAME LOG DATE TIME TOP DATE TIME SAMPLE

ANHYDRITE 2546' (-249) 2550' (-245)

BASE ANHYDRITE 2578' (-217) 2581' (-214)

FORMATION NAME	LOG DATE	TIME	TOP DATE	TIME	SAMPLE
ANHYDRITE	2546'	(-249)	2550'	(-245)	
BASE ANHYDRITE	2578'	(-217)	2581'	(-214)	
NEVA	3206'	(-411)	3210'	(-415)	
FORAKER	3322'	(-527)	3328'	(-533)	
TOPEKA	3594'	(-799)	3596'	(-801)	
HEEBNER	3753'	(-958)	3757'	(-962)	
LANSING	3807'	(-1003)	3802'	(-1007)	
STARK	3961'	(-1166)	3965'	(-1170)	
BKC	4008'	(-1213)	4008'	(-1213)	
VERTICAL DEPTH	4079'	(-1284)	4080'	(-1285)	

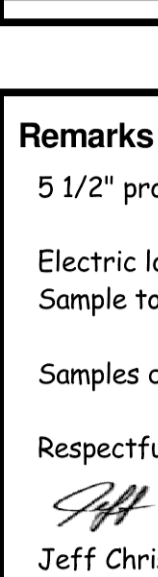
ELEVATIONS  
KB **2795'**  
GL **2790'**

MEASUREMENTS FROM KB  
CASINO RECORD  
Candidate NONE

Surface **8.5 deg @ 273'**  
W/ 210 SW  
Production **1 1/2" @ 4069'**  
W/ 190 SW

ELECTRICAL SUPPLIES  
LOG TECH INC  
DLC  
CML/DCL

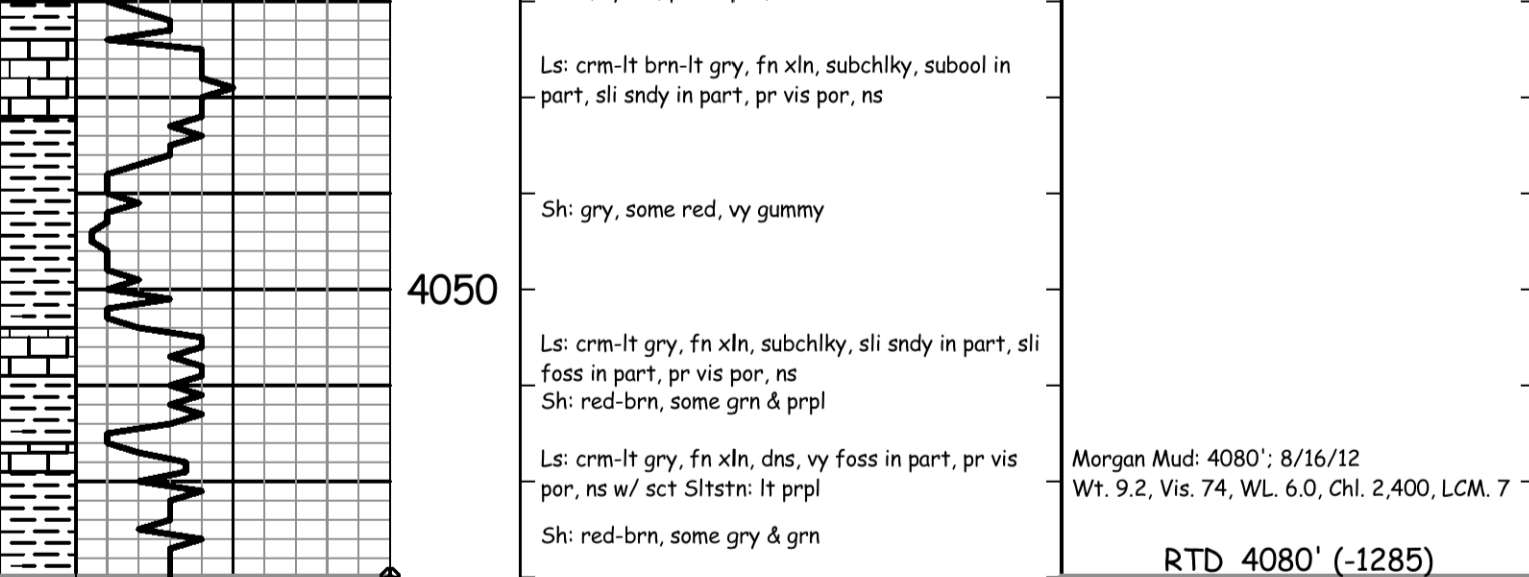
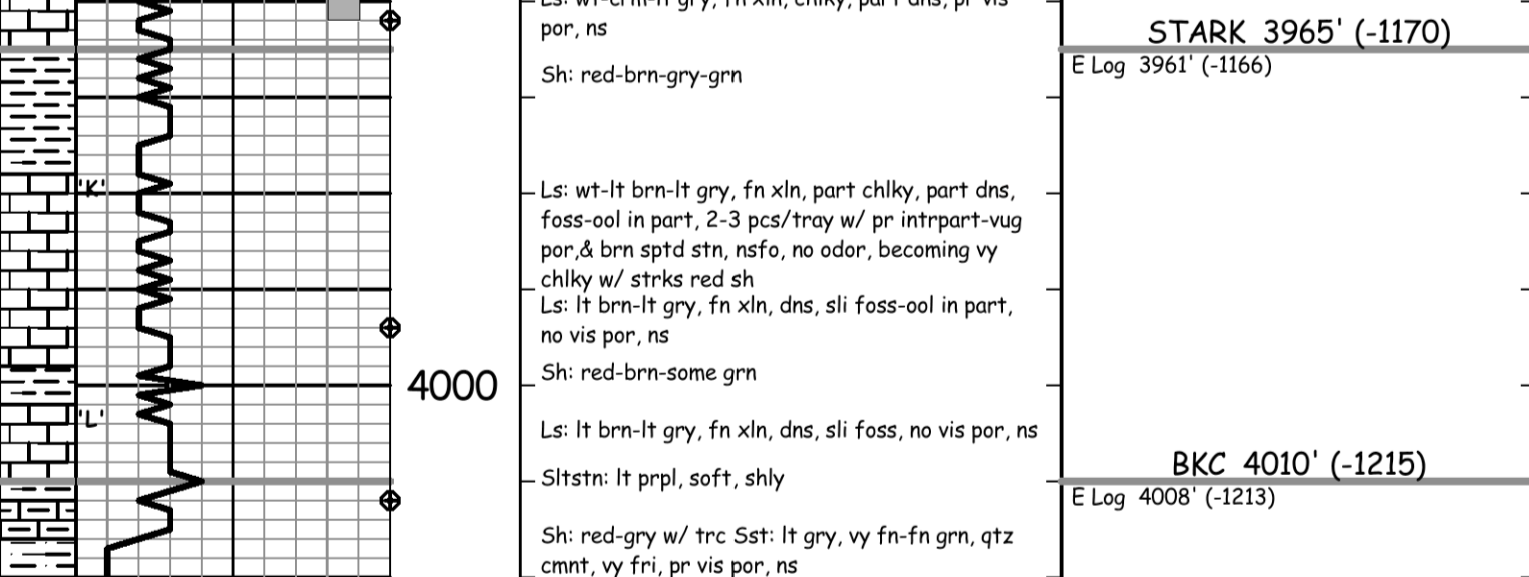
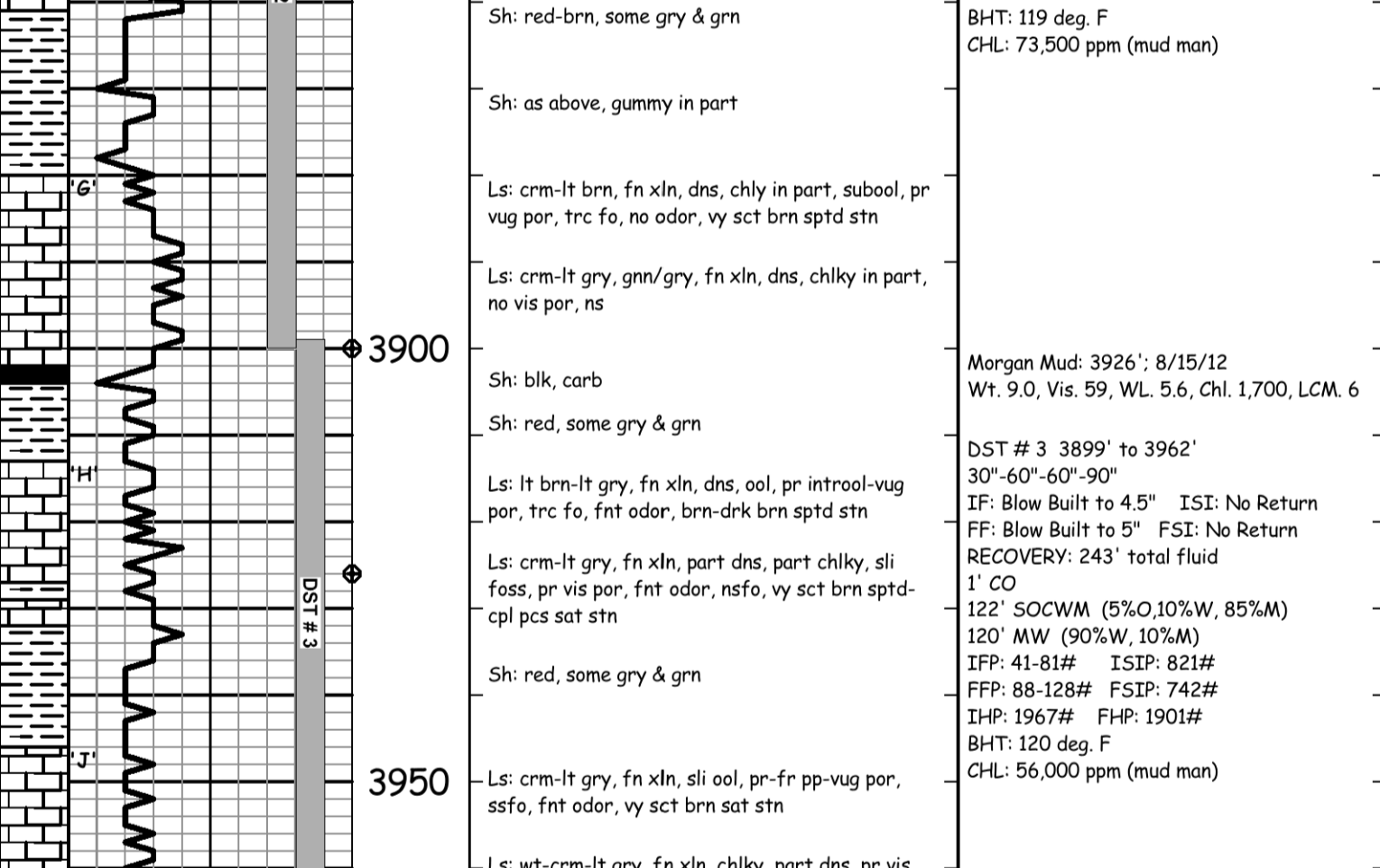
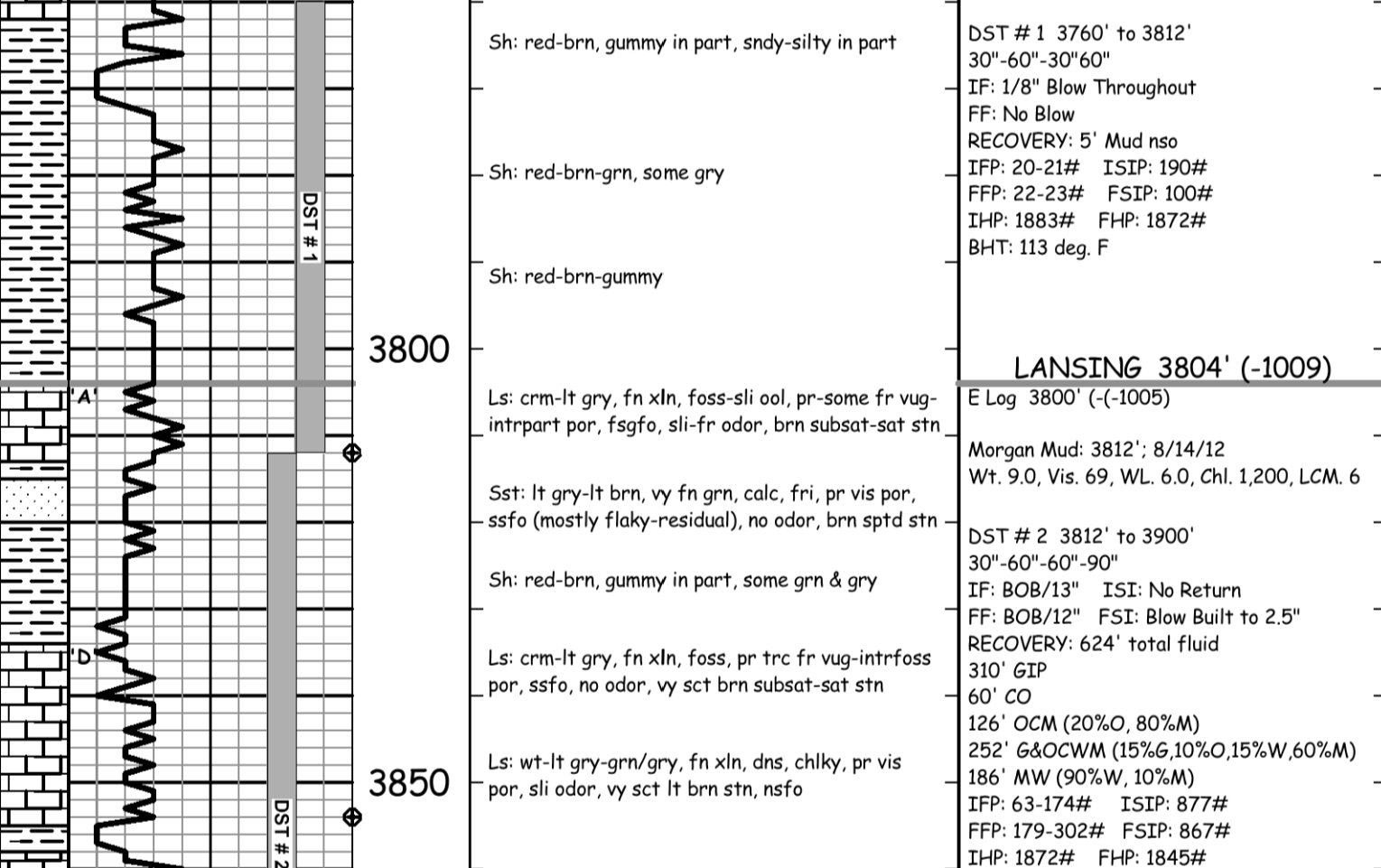
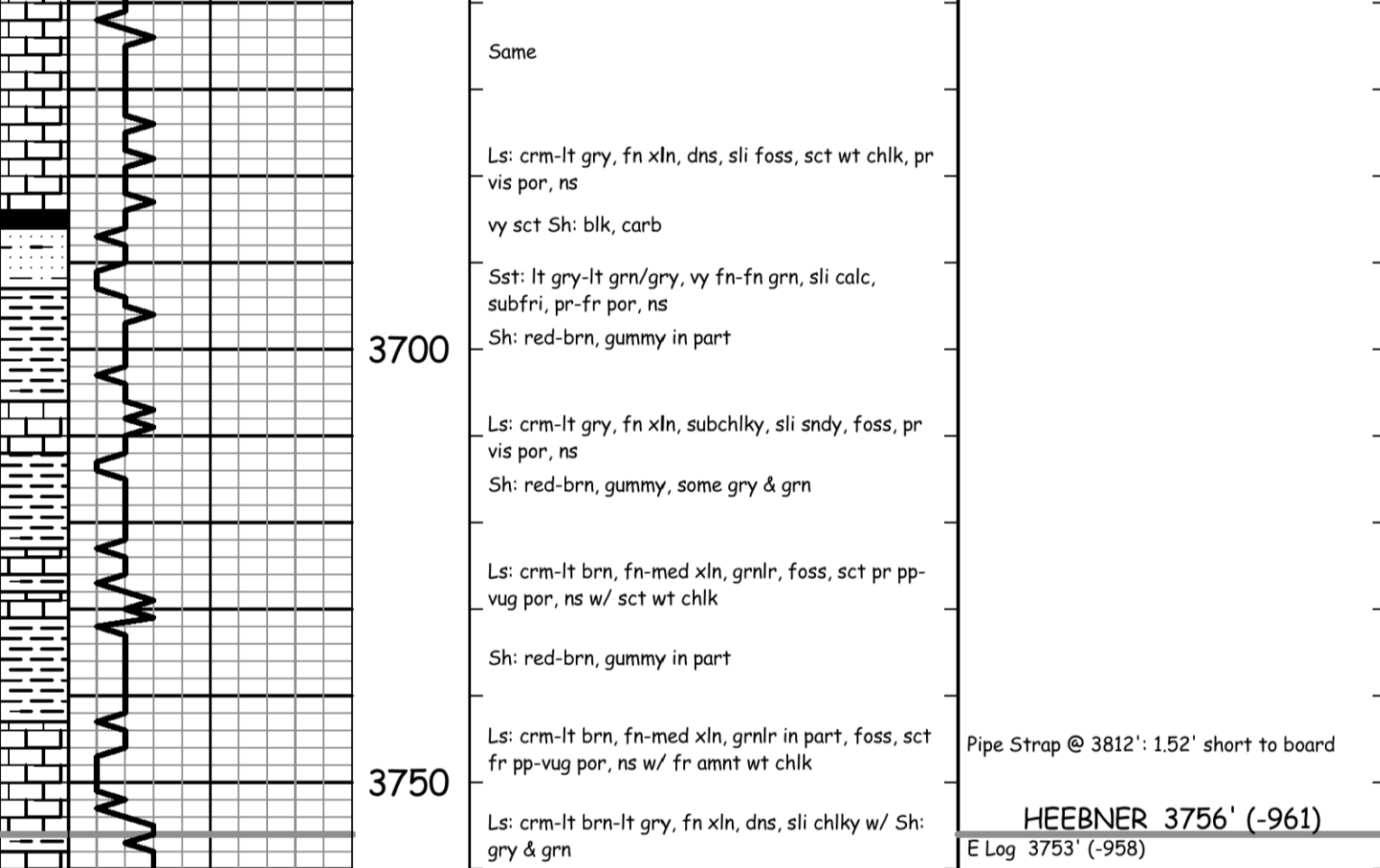
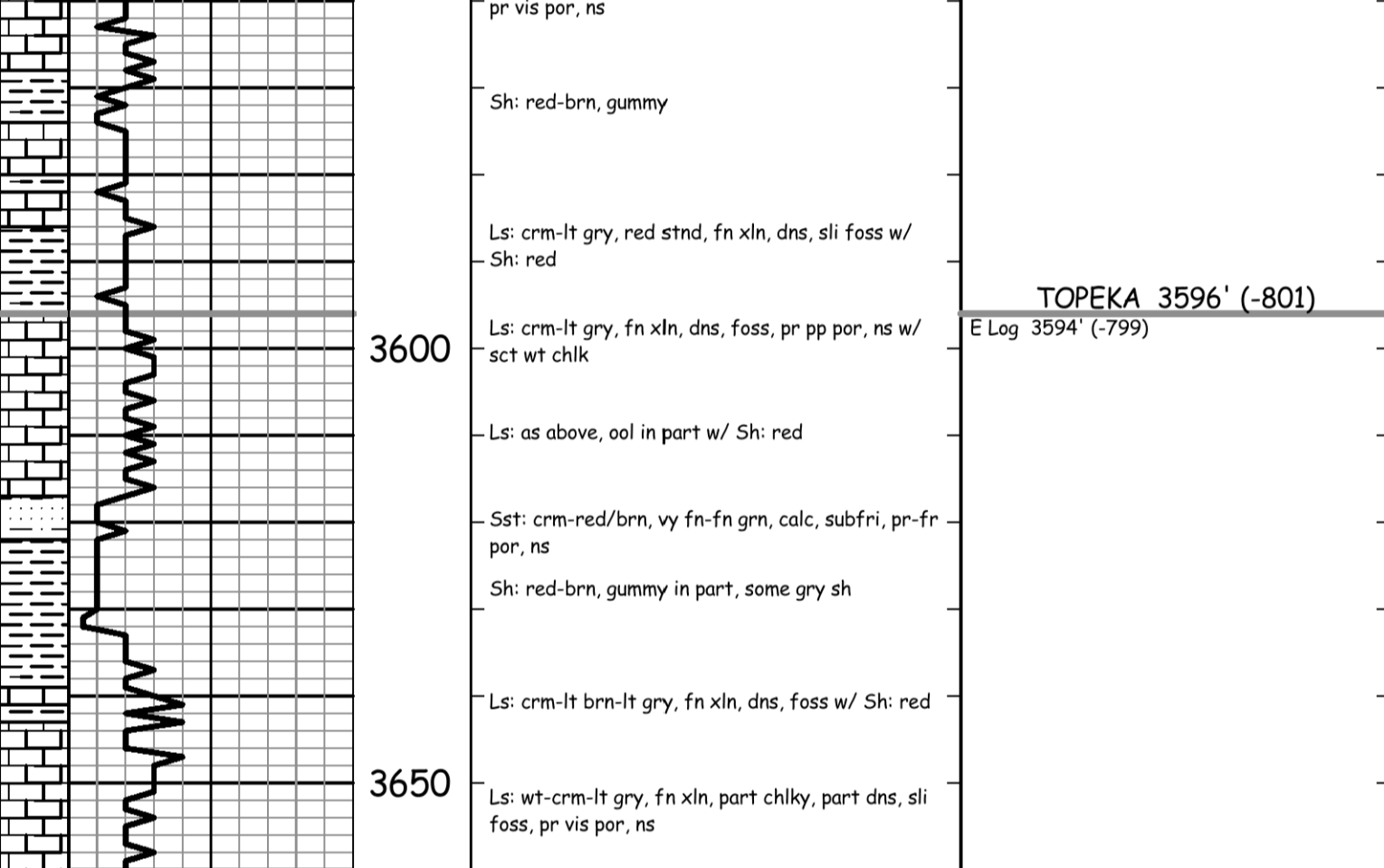
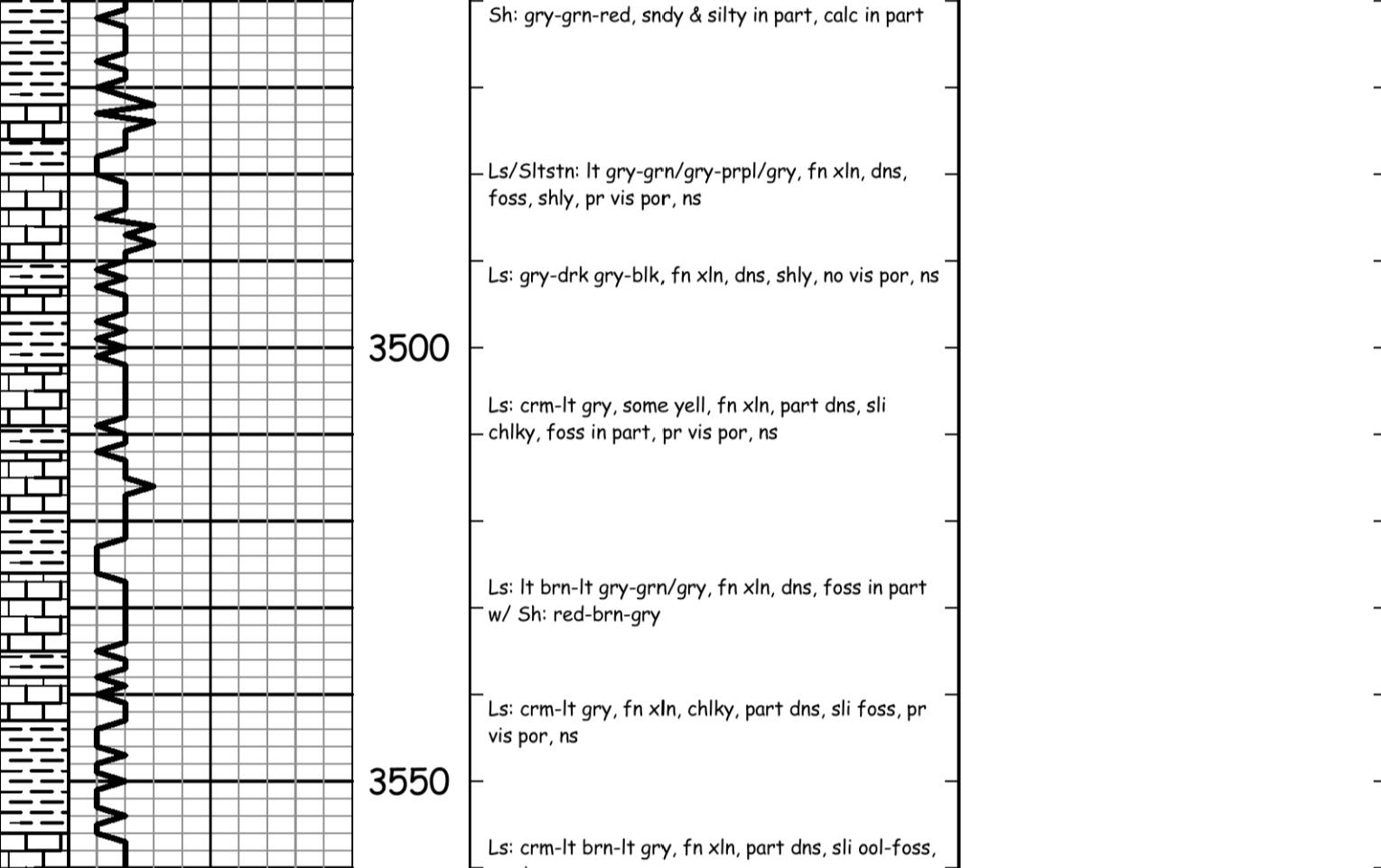
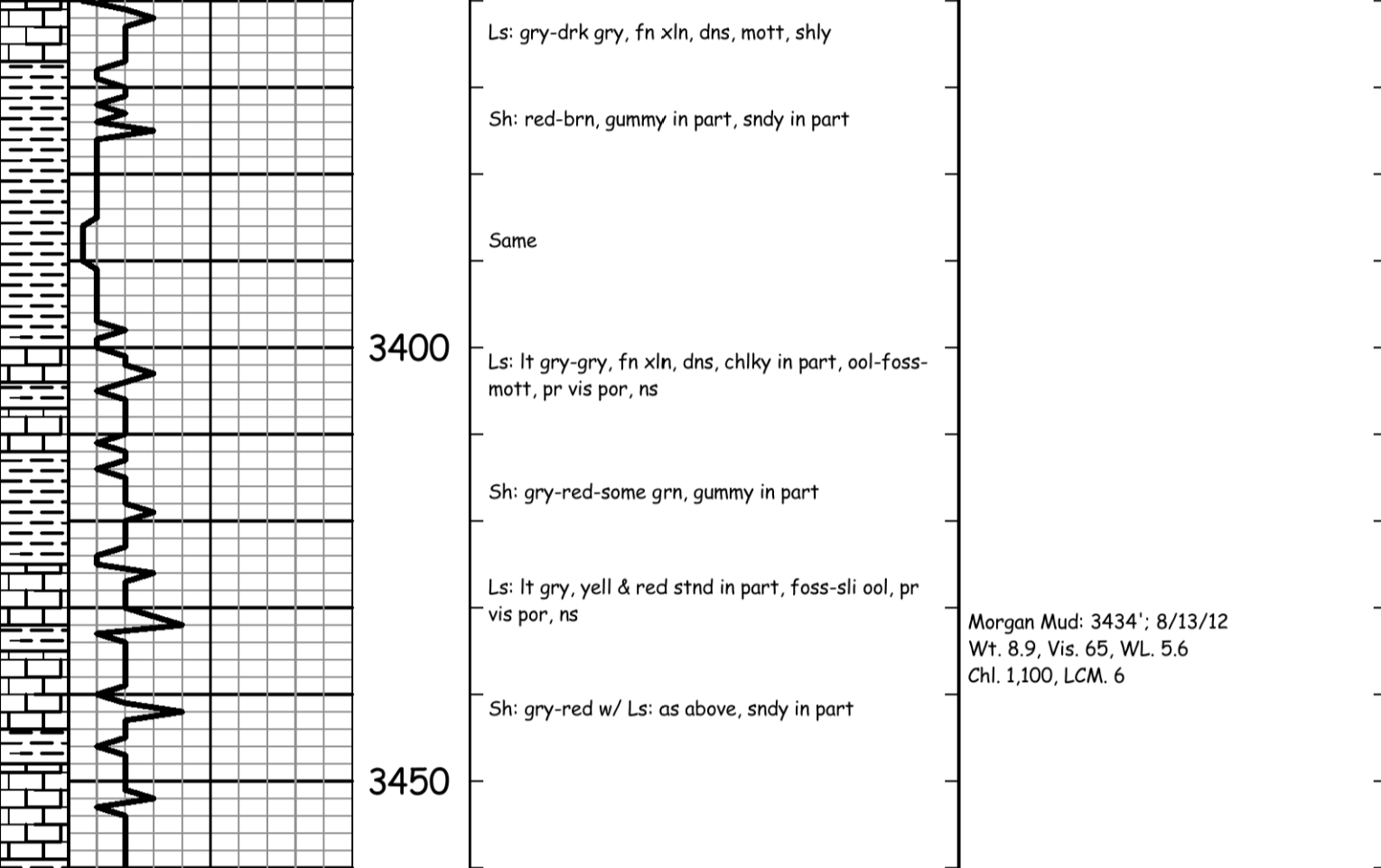
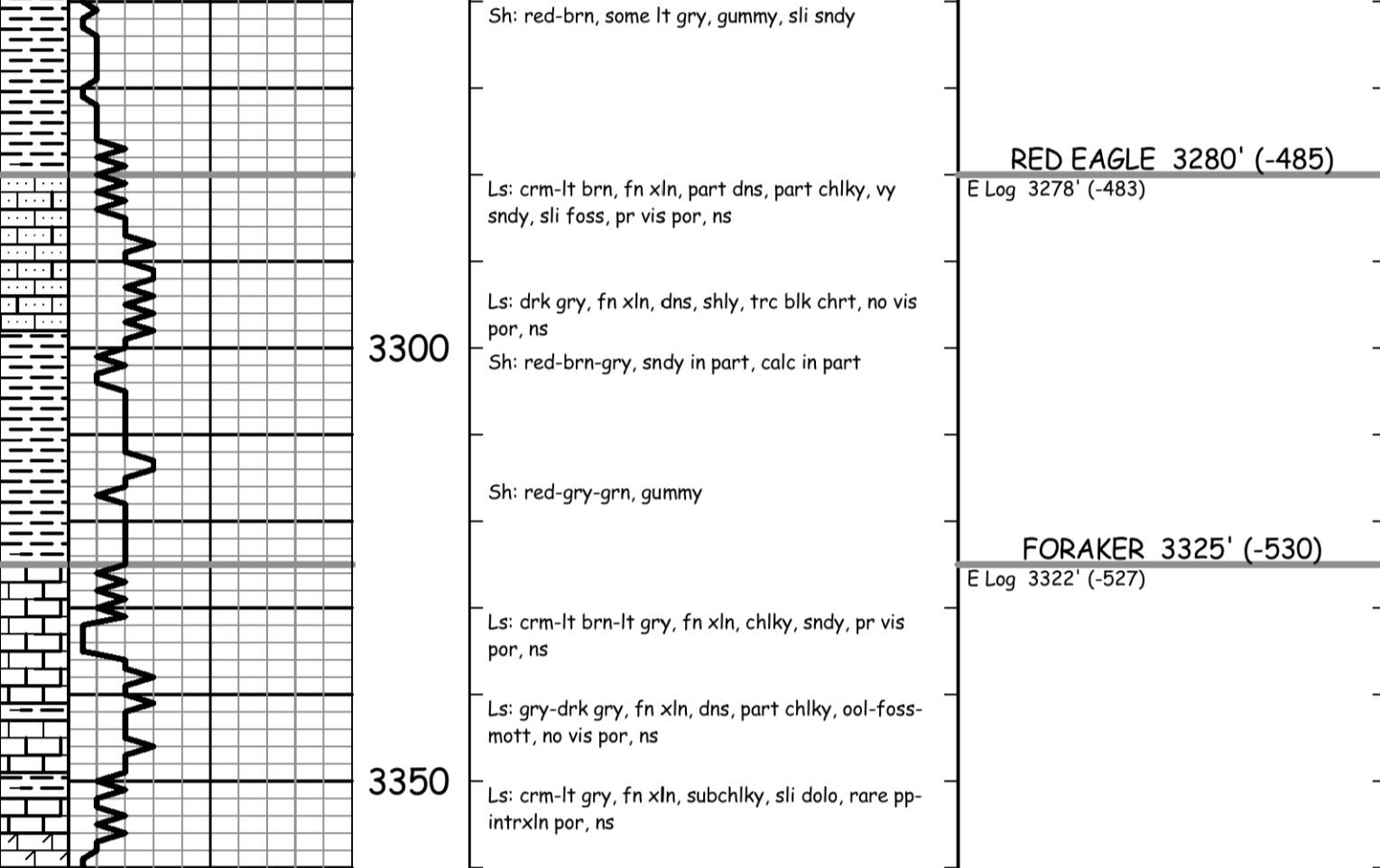
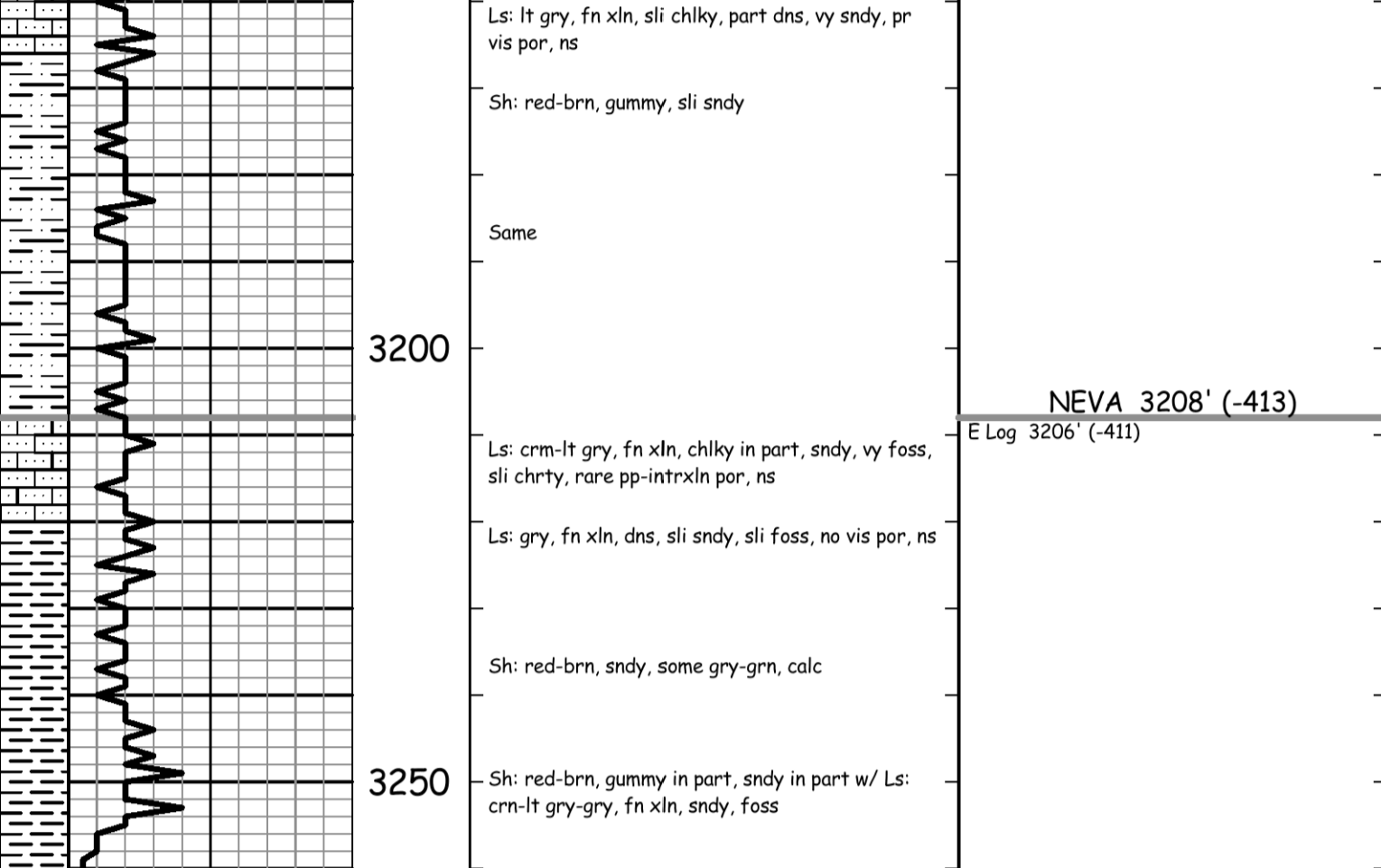
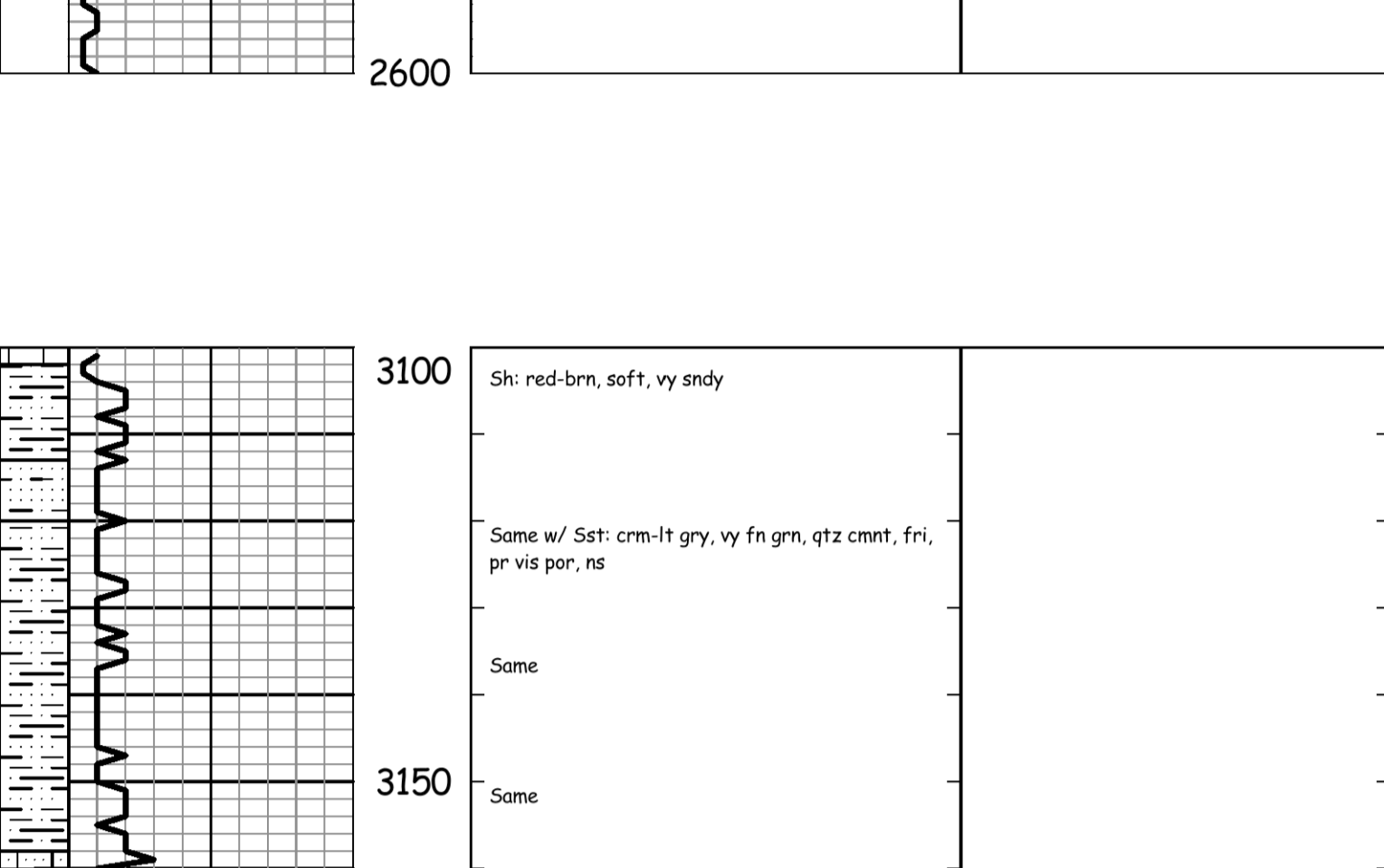
MEI  
BHC



DATE	7:00 AM DEPTH	REMARKS
8/10/12	MIRT	SPUD 2:30 pm
8/11/12	520'	DRLG dev. 1 deg @ 273'
8/12/12	2250'	DRLG
8/13/12	3300'	DRLG
8/14/12	3812'	TOH for DST # 1 dev. 3/4 deg @ 3812'
8/15/12	3900'	TOH for DST # 2
8/16/12	4012'	DRLG RTD 4080' @ 10:00 am dev. 3/4 deg.

**Remarks**  
5 1/2" production casing run to further test the Lansing / KC formation.  
Electric log tops correlate about 2' to 4' high compared to rotary measurements.  
Sample tops adjusted to the electric log.  
Samples deposited at the Kansas Geological Survey.  
Respectfully Submitted,  
*Jeff Christian*  
Jeff Christian

LITH	DRILL TIME (MIN-FT)	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
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## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Brewer #1-18**

### **18-2s-29w Decatur,KS**

Start Date: 2012.08.14 @ 07:27:00

End Date: 2012.08.14 @ 14:24:45

Job Ticket #: 45644                      DST #: 1

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

Printed: 2012.08.17 @ 10:53:16



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

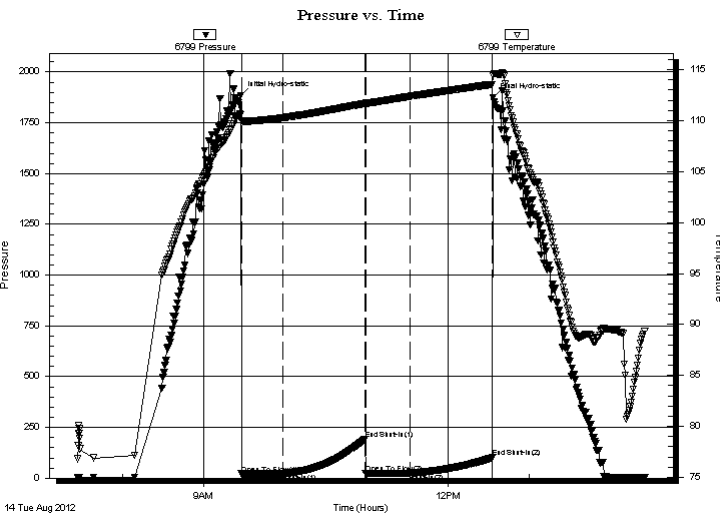
**18-2s-29w Decatur, KS**  
**Brewer #1-18**  
Job Ticket: 45644      **DST#: 1**  
Test Start: 2012.08.14 @ 07:27:00

## GENERAL INFORMATION:

Formation: **LKC "A"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 09:27:45  
Time Test Ended: 14:24:45  
Interval: **3760.00 ft (KB) To 3812.00 ft (KB) (TVD)**  
Total Depth: 3912.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Kevin Mack  
Unit No: 43  
Reference Elevations: 2795.00 ft (KB)  
2790.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6799      Inside**  
Press @ Run Depth: 23.66 psig @ 3761.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.08.14      End Date: 2012.08.14      Last Calib.: 2012.08.14  
Start Time: 07:27:05      End Time: 14:24:44      Time On Btm: 2012.08.14 @ 09:27:00  
Time Off Btm: 2012.08.14 @ 12:33:00

**TEST COMMENT:** 30 - IF- 1/8" Blow Did not build or die  
60 - IS- No Return  
30 - FF- No Blow  
60 - FS- No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.96	110.60	Initial Hydro-static
1	20.62	109.99	Open To Flow (1)
32	21.28	110.28	Shut-In(1)
92	190.67	111.67	End Shut-In(1)
93	22.15	111.64	Open To Flow (2)
126	23.66	112.37	Shut-In(2)
186	100.81	113.54	End Shut-In(2)
186	1872.95	114.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

## Gas Rates

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



TRILLOBITE  
TESTING, INC.

# DRILL STEM TEST REPORT

Murfin Drilling Co.

18-2s-29w Decatur,KS

250 N Water STE #300  
Wichita, KS 67202

Brewer #1-18

Job Ticket: 45644

DST#: 1

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 07:27:00

## GENERAL INFORMATION:

Formation: LKC "A"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:27:45

Time Test Ended: 14:24:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: 3760.00 ft (KB) To 3812.00 ft (KB) (TVD)

Reference Elevations: 2795.00 ft (KB)

Total Depth: 3912.00 ft (KB) (TVD)

2790.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8648 Inside

Press @ Run Depth: psig @ 3761.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.14 End Date: 2012.08.14

Last Calib.: 2012.08.14

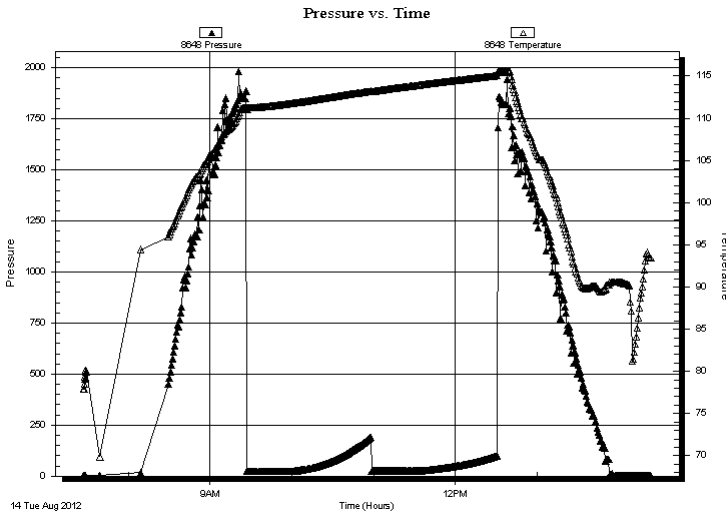
Start Time: 07:27:05 End Time: 14:23:14

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/8" Blow Did not build or die  
60 - IS- No Return  
30 - FF- No Blow  
60 - FS- No Return

## PRESSURE SUMMARY



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

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45644

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 07:27:00

## Tool Information

Drill Pipe:	Length: 3570.00 ft	Diameter: 3.80 inches	Volume: 50.08 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 50.99 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3760.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## 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			3732.00	
Shut In Tool	5.00			3737.00	
Hydraulic tool	5.00			3742.00	
Jars	5.00			3747.00	
Safety Joint	3.00			3750.00	
Packer	5.00			3755.00	29.00 Bottom Of Top Packer
Packer	5.00			3760.00	
Stubb	1.00			3761.00	
Recorder	0.00	8648	Inside	3761.00	
Recorder	0.00	6799	Inside	3761.00	
Perforations	12.00			3773.00	
Change Over Sub	1.00			3774.00	
Drill Pipe	32.00			3806.00	
Change Over Sub	1.00			3807.00	
Bullnose	5.00			3812.00	52.00 Bottom Packers & Anchor

**Total Tool Length: 81.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45644

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 07:27:00

## 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 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100M	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:

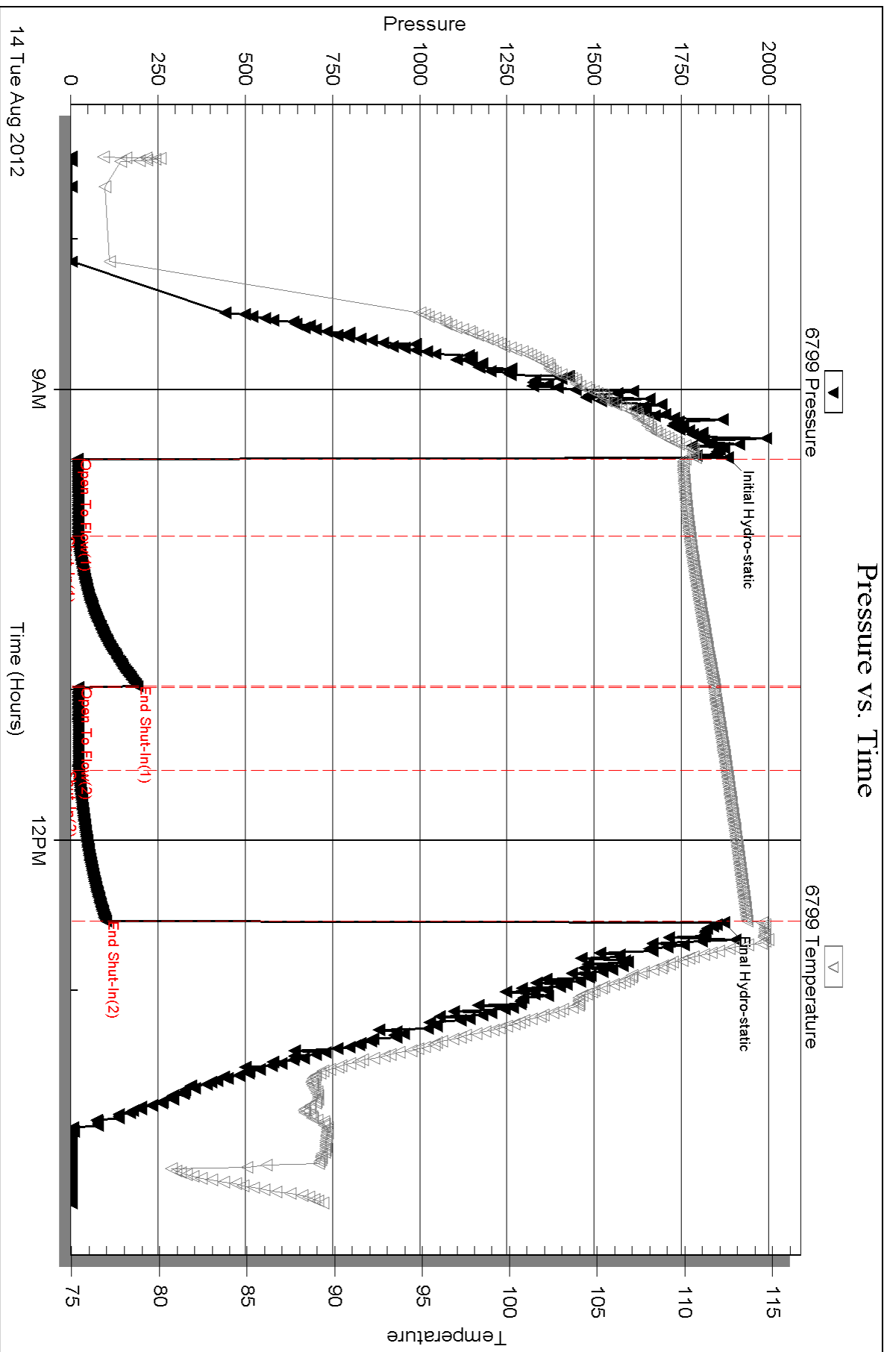
Serial #: 6799

Inside

Murfin Drilling Co.

Brewer #1-18

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 45644

Printed: 2012.08.17 @ 10:53:19

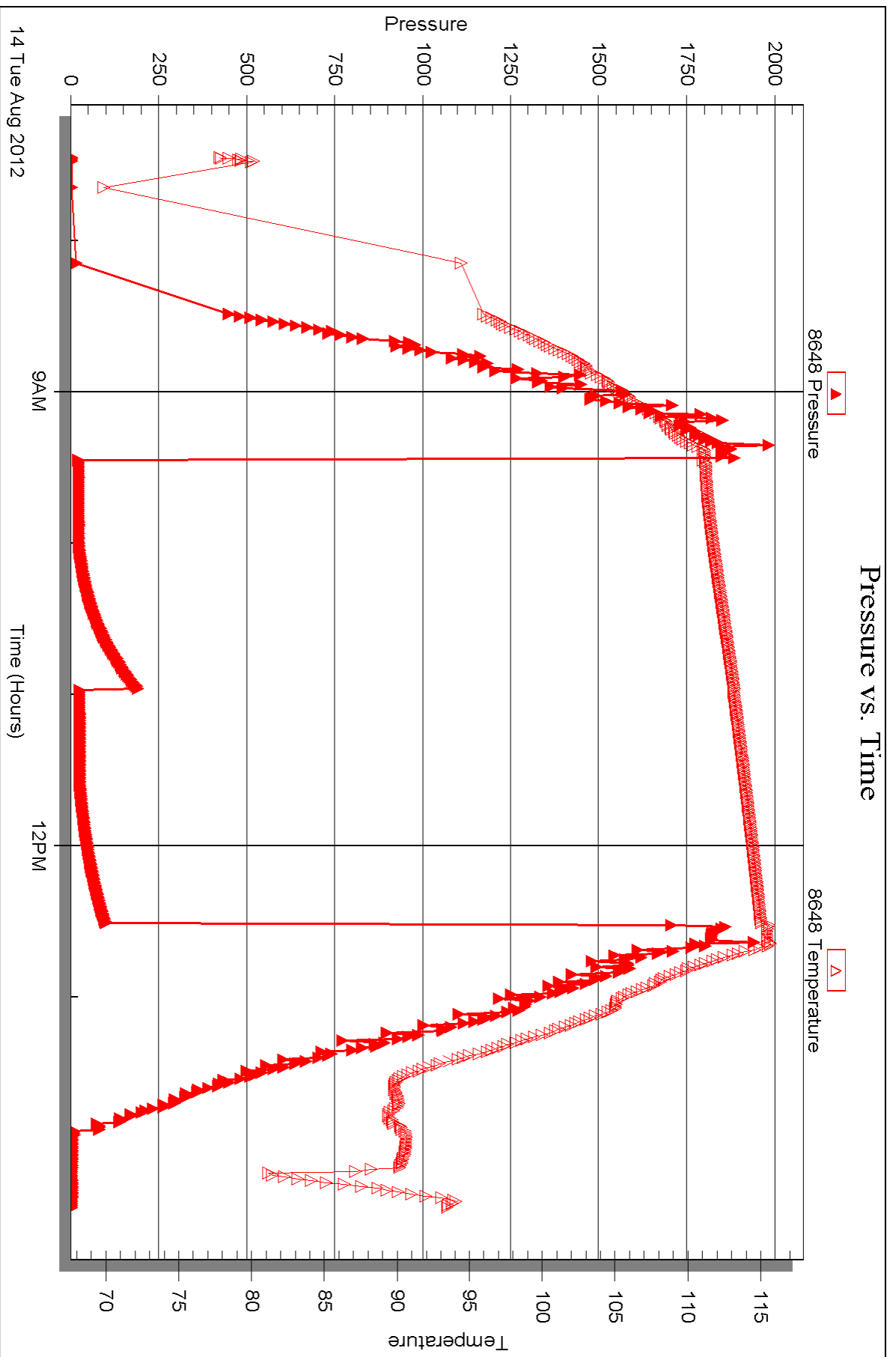
Serial #: 8648

Inside

Murfin Drilling Co.

Brewer #1-18

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Brewer #1-18**

### **18-2s-29w Decatur,KS**

Start Date: 2012.08.14 @ 23:15:00

End Date: 2012.08.15 @ 08:03:00

Job Ticket #: 45645                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.08.17 @ 10:52:39



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Murfin Drilling Co.

**18-2s-29w Decatur, KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45645

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 23:15:00

### GENERAL INFORMATION:

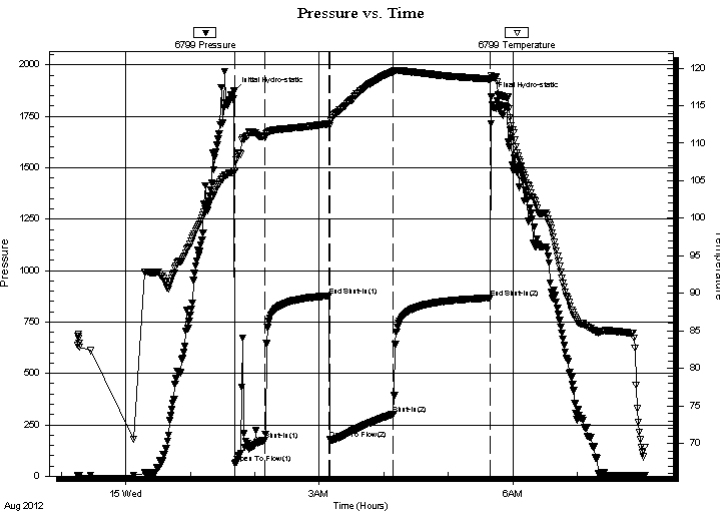
Formation: **LKC "D&G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:41:45  
 Time Test Ended: 08:03:00  
**Interval: 3812.00 ft (KB) To 3900.00 ft (KB) (TVD)**  
 Total Depth: 3900.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 43  
 Reference Elevations: 2795.00 ft (KB)  
 2790.00 ft (CF)  
 KB to GR/CF: 5.00 ft

### Serial #: 6799

### Inside

Press @ Run Depth: 302.46 psig @ 3813.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.14 End Date: 2012.08.15 Last Calib.: 2012.08.15  
 Start Time: 23:15:05 End Time: 08:03:00 Time On Btm: 2012.08.15 @ 01:40:45  
 Time Off Btm: 2012.08.15 @ 05:40:15

TEST COMMENT: 30 - IF- BoB in 13 min  
 60 - IS- No Return  
 60 - FF- BoB in 12 min  
 69 - FS- Surface Return started at 20 min. Built to 2 1/2"



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1872.21	106.31	Initial Hydro-static
1	63.38	106.30	Open To Flow (1)
28	174.99	110.90	Shut-In(1)
88	877.01	112.57	End Shut-In(1)
89	179.10	112.32	Open To Flow (2)
148	302.46	119.53	Shut-In(2)
238	867.03	118.54	End Shut-In(2)
240	1845.43	118.56	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
186.00	MW 90W 10M	0.91
252.00	GOCWM 15G 10o 15W 60M	3.53
126.00	OCM 20o 80M	1.77
60.00	Free Oil 100o	0.84
0.00	310' GIP	0.00

### Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45645

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 23:15:00

## GENERAL INFORMATION:

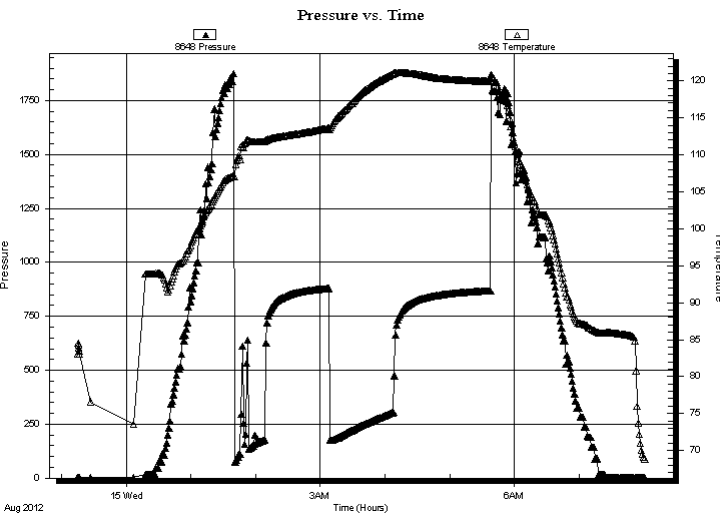
Formation: **LKC "D&G"**  
 Deviated: **No Whipstock:** ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 01:41:45  
 Tester: Kevin Mack  
 Time Test Ended: 08:03:00  
 Unit No: 43  
 Interval: **3812.00 ft (KB) To 3900.00 ft (KB) (TVD)**  
 Reference Elevations: 2795.00 ft (KB)  
 Total Depth: 3900.00 ft (KB) (TVD)  
 2790.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 KB to GR/CF: 5.00 ft

### Serial #: 8648

Inside

Press @ RunDepth: psig @ 3813.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2012.08.14      End Date: 2012.08.15      Last Calib.: 2012.08.15  
 Start Time: 23:15:05      End Time: 08:01:00      Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30 - IF- BoB in 13 min  
 60 - IS- No Return  
 60 - FF- BoB in 12 min  
 69 - FS- Surface Return started at 20 min. Built to 2 1/2"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	MW 90W 10M	0.91
252.00	GOCWM 15G 10o 15W 60M	3.53
126.00	OCM 20o 80M	1.77
60.00	Free Oil 100o	0.84
0.00	310' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45645

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 23:15:00

## Tool Information

Drill Pipe:	Length: 3630.00 ft	Diameter: 3.80 inches	Volume: 50.92 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 51.83 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3812.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	88.00 ft			
Tool Length:	117.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

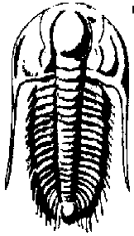
## Tool Description

**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			3784.00	
Shut In Tool	5.00			3789.00	
Hydraulic tool	5.00			3794.00	
Jars	5.00			3799.00	
Safety Joint	3.00			3802.00	
Packer	5.00			3807.00	29.00 Bottom Of Top Packer
Packer	5.00			3812.00	
Stubb	1.00			3813.00	
Recorder	0.00	8648	Inside	3813.00	
Recorder	0.00	6799	Inside	3813.00	
Perforations	17.00			3830.00	
Change Over Sub	1.00			3831.00	
Drill Pipe	63.00			3894.00	
Change Over Sub	1.00			3895.00	
Bullnose	5.00			3900.00	88.00 Bottom Packers & Anchor

**Total Tool Length: 117.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45645

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2012.08.14 @ 23:15:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

27000 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
186.00	MW 90W 10M	0.915
252.00	GOCWM 15G 10o 15W 60M	3.535
126.00	OCM 20o 80M	1.767
60.00	Free Oil 100o	0.842
0.00	310' GIP	0.000

Total Length: 624.00 ft

Total Volume: 7.059 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

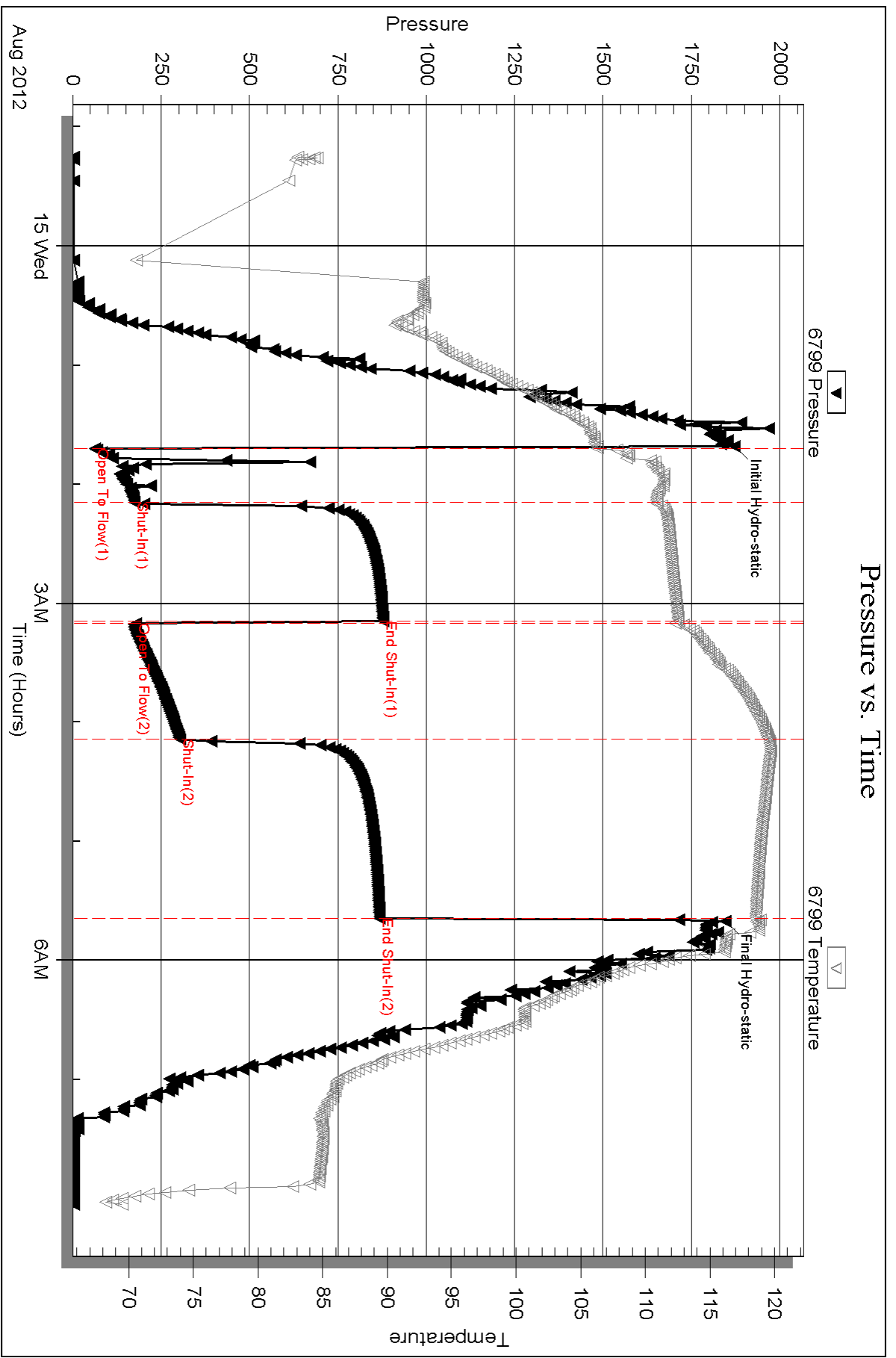
Serial #: 6799

Inside

Murfin Drilling Co.

Brewer #1-18

DST Test Number: 2



Serial #: 8648

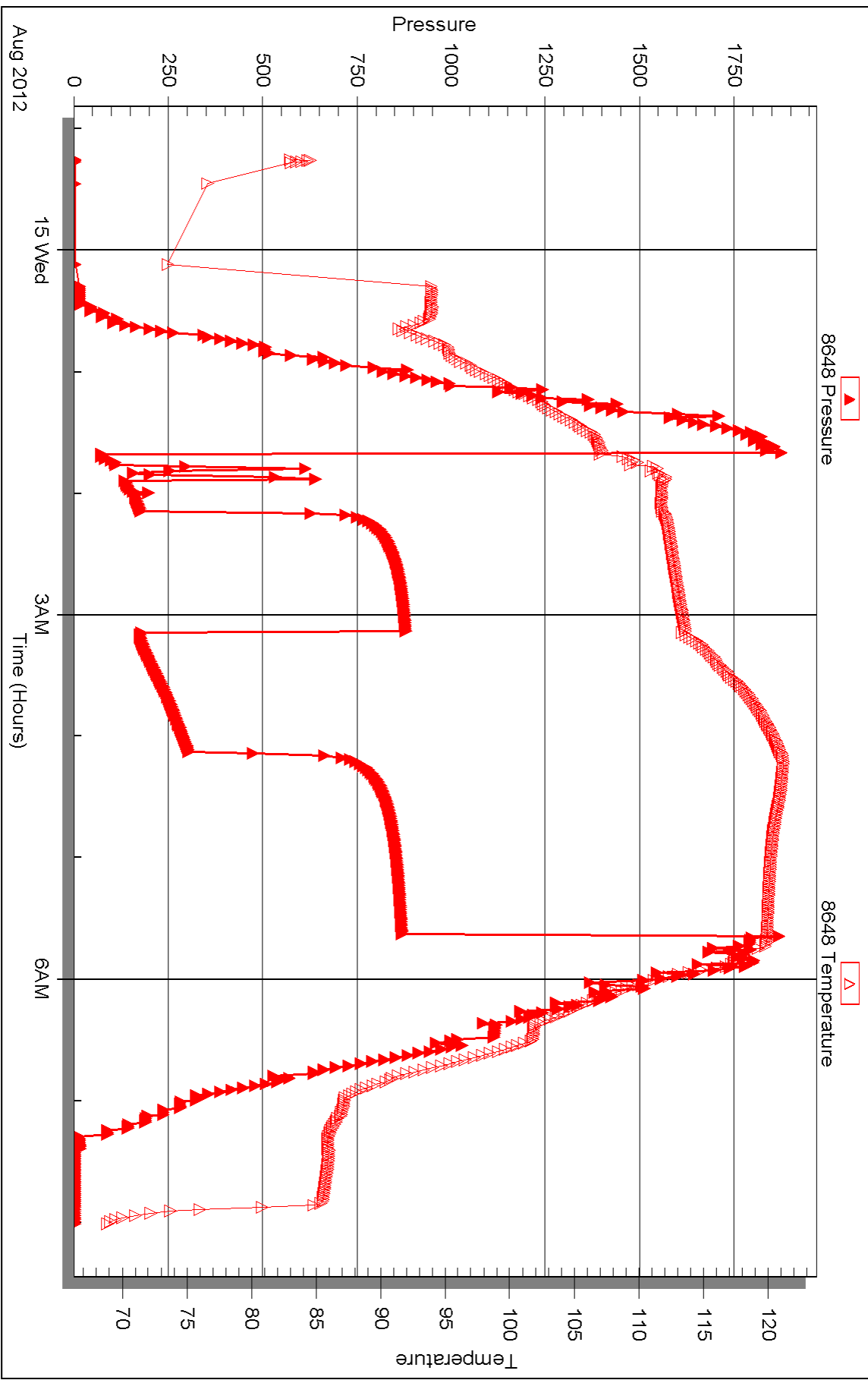
Inside

Murfin Drilling Co.

Brewer #1-18

DST Test Number: 2

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water STE #300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Brewer #1-18**

### **18-2s-29w Decatur,KS**

Start Date: 2012.08.15 @ 16:45:00

End Date: 2012.08.16 @ 01:08:45

Job Ticket #: 45646                      DST #: 3

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

Printed: 2012.08.17 @ 10:51:52



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**18-2s-29w Decatur, KS**  
**Brewer #1-18**  
Job Ticket: 45646      **DST#: 3**  
Test Start: 2012.08.15 @ 16:45:00

## GENERAL INFORMATION:

Formation: **LKC "H&J"**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 18:59:45      Tester: Kevin Mack  
Time Test Ended: 01:08:45      Unit No: 43  
**Interval: 3899.00 ft (KB) To 3962.00 ft (KB) (TVD)**      Reference Elevations: 2795.00 ft (KB)  
Total Depth: 3962.00 ft (KB) (TVD)      2790.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

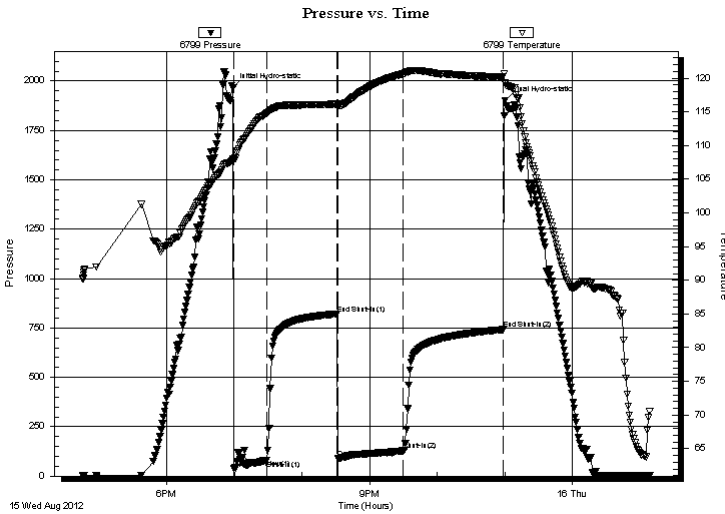
## Serial #: 6799

Inside

Press @ Run Depth: 128.95 psig @ 3900.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.08.15      End Date: 2012.08.16      Last Calib.: 2012.08.16  
Start Time: 16:45:05      End Time: 01:08:44      Time On Btm: 2012.08.15 @ 18:58:45  
Time Off Btm: 2012.08.15 @ 23:00:30

**TEST COMMENT:** 30 - IF- Surface Blow built to 4 1/2"  
60 - IS- No Return  
60 - FF- Blow Started at 12 min. Built to 5"  
90 - FS- No Return

## PRESSURE SUMMARY



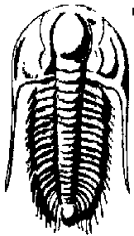
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.16	108.02	Initial Hydro-static
1	41.07	107.84	Open To Flow (1)
30	81.09	114.79	Shut-In(1)
92	821.71	116.14	End Shut-In(1)
93	88.11	115.90	Open To Flow (2)
151	128.95	120.64	Shut-In(2)
240	742.76	120.19	End Shut-In(2)
242	1901.28	119.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 10M 90W	0.59
122.00	OCWM 5o 85M 10W	1.11
1.00	Free oil 100o	0.01

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co.  
250 N Water STE #300  
Wichita, KS 67202  
ATTN: Jeff Christian

**18-2s-29w Decatur, KS**

**Brewer #1-18**

Job Ticket: 45646

**DST#: 3**

Test Start: 2012.08.15 @ 16:45:00

## GENERAL INFORMATION:

Formation: **LKC "H&J"**  
Deviated: **No Whipstock:** ft (KB)      Test Type: **Conventional Bottom Hole (Initial)**  
Time Tool Opened: 18:59:45      Tester: **Kevin Mack**  
Time Test Ended: 01:08:45      Unit No: **43**

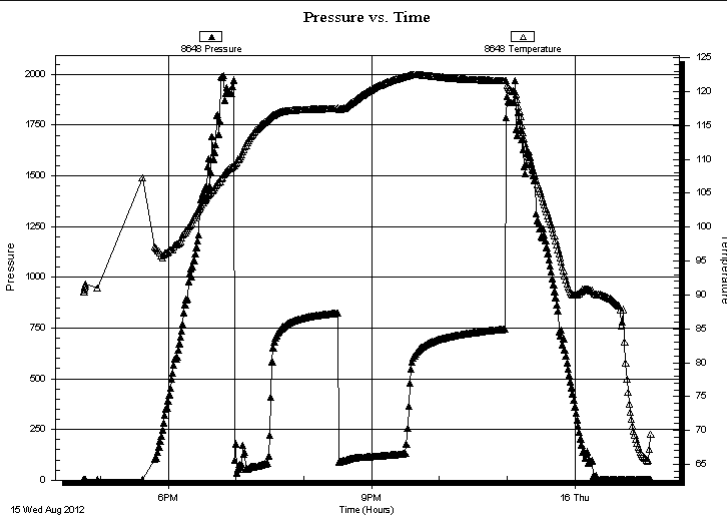
**Interval: 3899.00 ft (KB) To 3962.00 ft (KB) (TVD)**      Reference Elevations: **2795.00 ft (KB)**  
Total Depth: **3962.00 ft (KB) (TVD)**      **2790.00 ft (CF)**  
Hole Diameter: **7.88 inches** Hole Condition: **Good**      KB to GR/CF: **5.00 ft**

## Serial #: 8648

**Inside**

Press @ RunDepth:      psig @ **3900.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2012.08.15**      End Date: **2012.08.16**      Last Calib.: **2012.08.16**  
Start Time: **16:45:05**      End Time: **01:06:59**      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30 - IF- Surface Blow built to 4 1/2"  
60 - IS- No Return  
60 - FF- Blow Started at 12 min. Built to 5"  
90 - FS- No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 10M 90W	0.59
122.00	OCWM 5o 85M 10W	1.11
1.00	Free oil 100o	0.01

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45646

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.08.15 @ 16:45:00

## Tool Information

Drill Pipe:	Length: 3694.00 ft	Diameter: 3.80 inches	Volume: 51.82 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: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 52.73 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3899.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	92.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## 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			3871.00	
Shut In Tool	5.00			3876.00	
Hydraulic tool	5.00			3881.00	
Jars	5.00			3886.00	
Safety Joint	3.00			3889.00	
Packer	5.00			3894.00	29.00 Bottom Of Top Packer
Packer	5.00			3899.00	
Stubb	1.00			3900.00	
Recorder	0.00	8648	Inside	3900.00	
Recorder	0.00	6799	Inside	3900.00	
Perforations	23.00			3923.00	
Change Over Sub	1.00			3924.00	
Drill Pipe	32.00			3956.00	
Change Over Sub	1.00			3957.00	
Bullnose	5.00			3962.00	63.00 Bottom Packers & Anchor

**Total Tool Length: 92.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co.

**18-2s-29w Decatur,KS**

250 N Water STE #300  
Wichita, KS 67202

**Brewer #1-18**

Job Ticket: 45646

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2012.08.15 @ 16:45:00

## 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:

45000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW 10M 90W	0.590
122.00	OCWM 5o 85M 10W	1.110
1.00	Free oil 100o	0.014

Total Length: 243.00 ft

Total Volume: 1.714 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

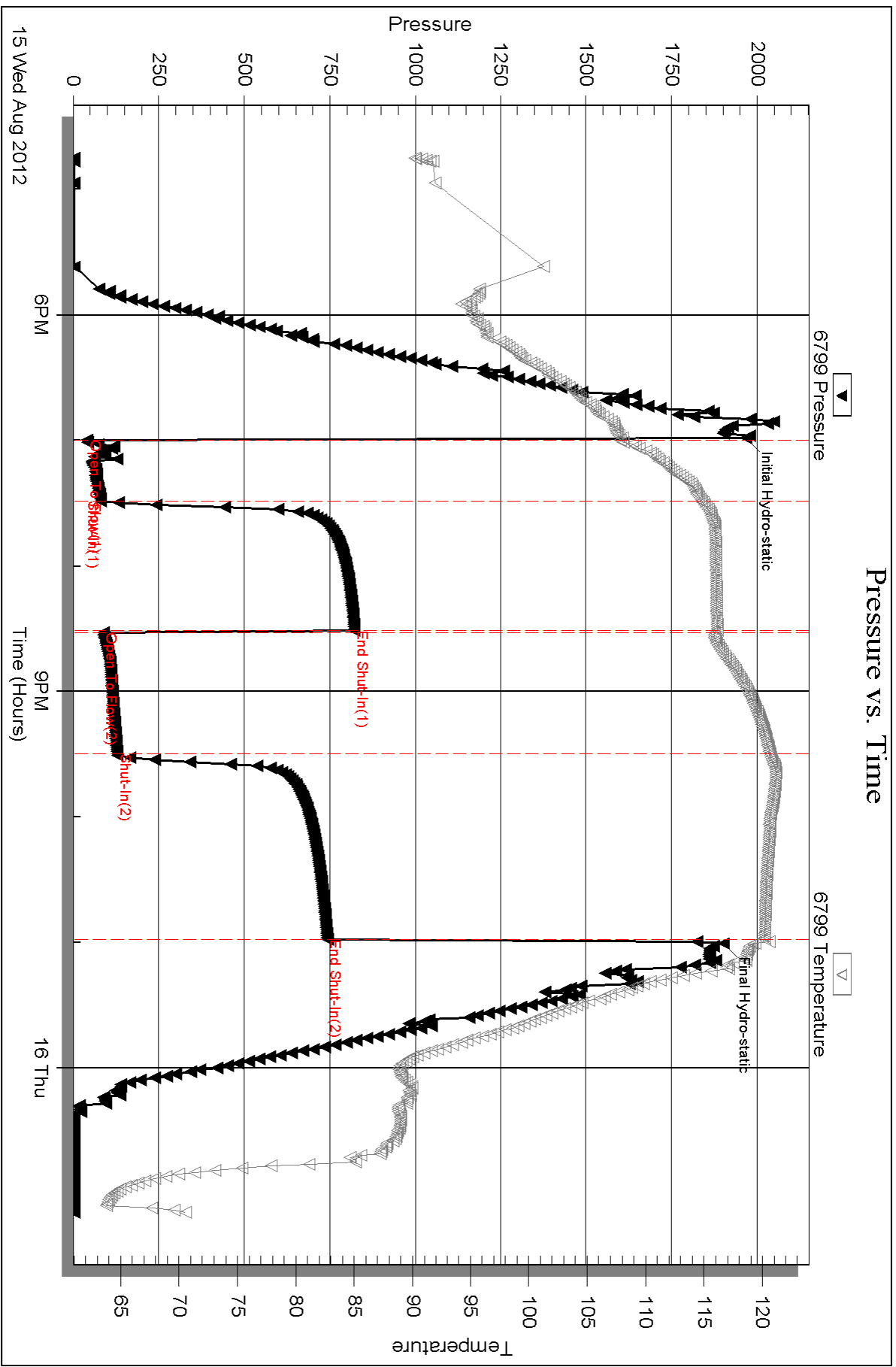
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





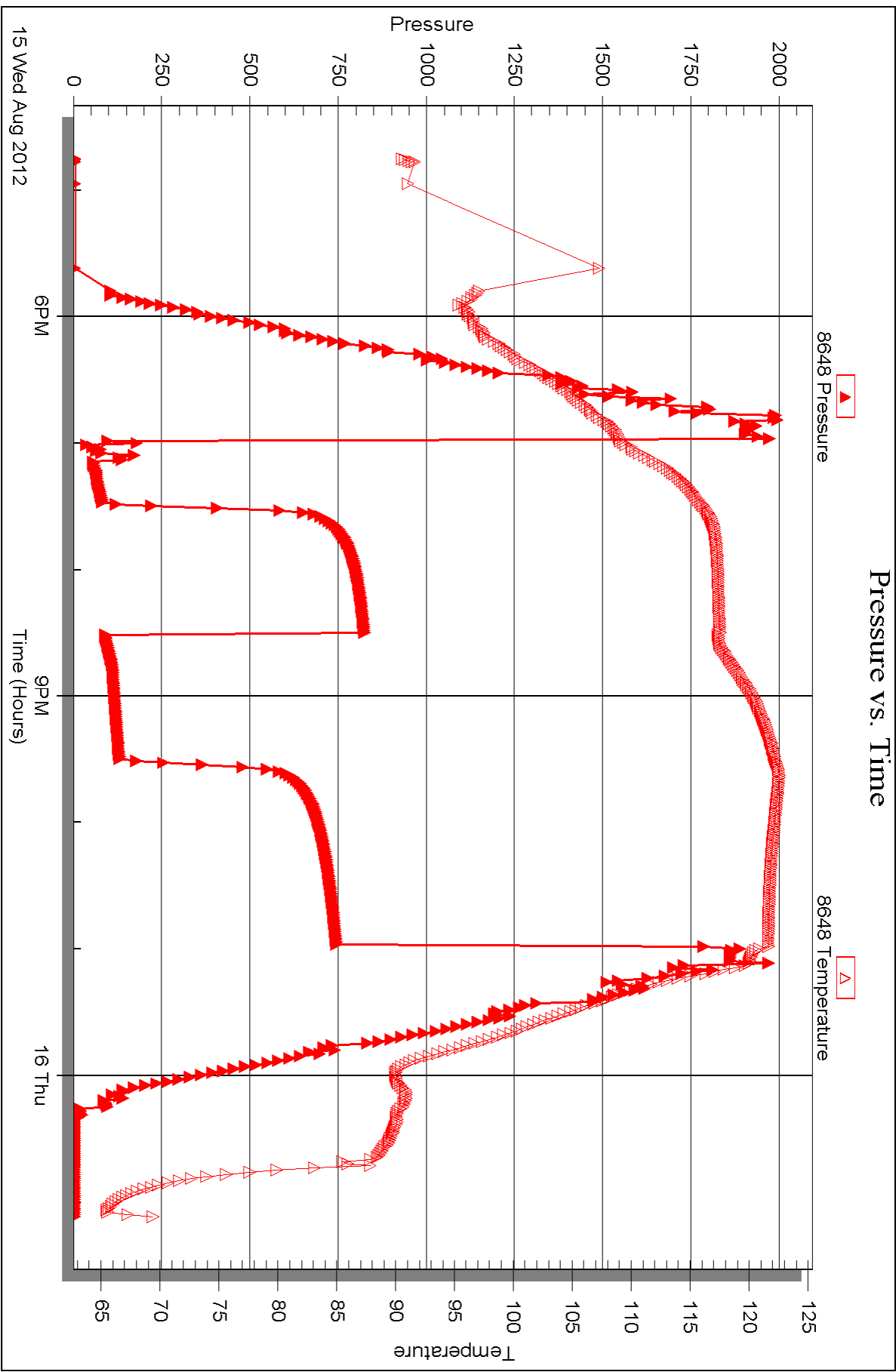
Serial #: 8648

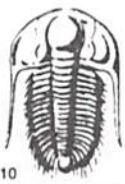
Inside

Murfin Drilling Co.

Brewer #1-18

DST Test Number: 3





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 45644

Well Name & No. Brewer #1-18 Test No. 1 Date 8-14-12  
 Company Murfin Drilling Co. Elevation 2795 KB 2790 GL  
 Address 250 N Water STE #300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 2s Rge. 29 W Co. Decatur State KS

Interval Tested 3760-3812 Zone Tested LKC "A"  
 Anchor Length 52 Drill Pipe Run 3570 Mud Wt. 8.9  
 Top Packer Depth 3756 Drill Collars Run 186 Vis 65  
 Bottom Packer Depth 3760 Wt. Pipe Run Ø WL 5.2  
 Total Depth 3812 Chlorides 1,100 ppm System LCM 6#

Blow Description IF- 1/2" Blow did not build or die  
IS- NO Return  
FF- NO Blow  
FS- NO Return

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

Rec Total 5 BHT 113 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1883</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>6:30 AM</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>7:27 AM</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>9:27 AM</u>
(D) Initial Shut-In <u>190</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>12:27 PM</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:25 PM</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>22RT</u> 34.10	Comments
(G) Final Shut-In <u>100</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1872</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1509.10</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1509.10</u>	

Approved By \_\_\_\_\_ Our Representative

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 45645

Well Name & No. Brewer #1-18 Test No. 2 Date 8-14-12  
 Company Murfin Drilling Co. Elevation 2795 KB 2790 GL  
 Address 250 N Water STE # 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 2s Rge. 29W Co. Decatur State KS

Interval Tested 3812-3900 Zone Tested LKC "D#6"  
 Anchor Length 88' Drill Pipe Run 3630 Mud Wt. 9.0  
 Top Packer Depth 3808 Drill Collars Run 186 Vis 69  
 Bottom Packer Depth 3812 Wt. Pipe Run Ø WL 60  
 Total Depth 3900 Chlorides 1,200 ppm System LCM 6#

Blow Description IF- BOB in 13 min  
IS- No Return  
FF- BOB in 12 min  
FS- Weak surface Return started at 20 min Built to 2 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>Free oil</u>	<u>100</u>			
<u>126</u>	<u>60CM</u>	<u>20</u>		<u>80</u>	
<u>252</u>	<u>60CLM</u>	<u>15</u>	<u>10</u>	<u>15</u>	<u>60</u>
<u>186</u>	<u>MW</u>		<u>90</u>	<u>10</u>	

Rec Total 624 BHT 119 Gravity 36 API RW .269 @ 70 °F Chlorides 27000 ppm

(A) Initial Hydrostatic 1872  Test 1150 T-On Location 10:45 PM  
 (B) First Initial Flow 63  Jars 250 T-Started 11:15 PM  
 (C) First Final Flow 174  Safety Joint 75 T-Open 1:41 AM  
 (D) Initial Shut-In 277  Circ Sub NIC T-Pulled 5:41 AM  
 (E) Second Initial Flow 179  Hourly Standby T-Out 8:04 AM  
 (F) Second Final Flow 302  Mileage 22RT 34.10 Comments 310' GIP  
 (G) Final Shut-In 267  Sampler  
 (H) Final Hydrostatic 1745  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 96

Sub Total 1509.10  
 Total 1509.10  
 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 45646

4/10

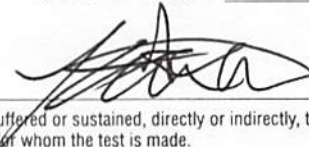
Well Name & No. Brewer #1-18 Test No. 3 Date 8-15-12  
 Company Murfin Drilling Co. Elevation 2795 KB 2790 GL  
 Address 250 N Water STE # 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 18 Twp. 2s Rge. 29w Co. Decatur State KS

Interval Tested 3899-3962 Zone Tested L1LC "H,5"  
 Anchor Length 63' Drill Pipe Run 3694 Mud Wt. 9.0  
 Top Packer Depth 3895 Drill Collars Run 186' Vis 59  
 Bottom Packer Depth 3899 Wt. Pipe Run Ø WL 5.6  
 Total Depth 3962 Chlorides 1,700 ppm System LCM 6#  
 Blow Description IF- Surface Blow built to 4 1/2"  
IS- NO Return  
FF- Blow Started at 12 min. Built to 5"  
FS- NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free oil</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>122</u>	<u>OLWM</u>	<u>5</u>	<u>10</u>	<u>85</u>	<u>0</u>
<u>120</u>	<u>MW</u>	<u>90</u>	<u>10</u>	<u>0</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 243 BHT 120 Gravity — API RW •16 @ 71 °F Chlorides 45000 ppm

(A) Initial Hydrostatic <u>1967</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>3:50 PM</u>
(B) First Initial Flow <u>41</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>4:45 PM</u>
(C) First Final Flow <u>81</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>6:50 PM</u>
(D) Initial Shut-In <u>821</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>10:50 PM</u>
(E) Second Initial Flow <u>88</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:00 AM</u>
(F) Second Final Flow <u>128</u>	<input checked="" type="checkbox"/> Mileage <u>22 RT X2</u>	Comments <u>Loaded tools</u>
(G) Final Shut-In <u>742</u>	<input type="checkbox"/> Sampler	<u>7:00 PM 8-16-12</u>
(H) Final Hydrostatic <u>1901</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>96</u>	<input type="checkbox"/> Day Standby	Total <u>1543.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1543.20</u>	

Approved By \_\_\_\_\_ Our Representative 

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.



*acct.  
Light Prod*

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 132276

Invoice Date: Aug 10, 2012

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

Page: 1



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

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Murfin	Brewer #1-18	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Aug 10, 2012	9/9/12

Quantity	Item	Description	Unit Price	Amount
210.00	MAT	Class A Common	16.25	3,412.50
7.00	MAT	Chloride	58.20	407.40
220.50	SER	Cubic Feet	2.10	463.05
711.90	SER	Ton Mileage	2.35	1,672.97
1.00	SER	Surface	1,125.00	1,125.00
70.00	SER	Pump Truck Mileage	7.00	490.00
70.00	SER	Light Vehicle Mileage	4.00	280.00
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	OPER ASSIST	Jeremy Sterger		
			<i>OCM</i>	

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

**\$2730.32**

ONLY IF PAID ON OR BEFORE  
**Sep 4, 2012**

Subtotal	7,850.92
Sales Tax	278.85
Total Invoice Amount	8,129.77
Payment/Credit Applied	
<b>TOTAL</b>	<b>8,129.77</b>

# ALLIED OIL & GAS SERVICES, LLC 056789

Federal Tax I.D.# 20-5976804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT: Dakley

DATE <u>8/10/12</u>	SEC. <u>18</u>	TWP. <u>2</u>	RANGE <u>29</u>	CALLED OUT	ON LOCATION	JOB START <u>3:10 PM</u>	JOB FINISH <u>7:30</u>
LEASE <u>Brower</u>	WELL# <u>1-18</u>	LOCATION <u>1/2 E S 0 W - N 7 to 3 W</u>	COUNTY <u>Dickinson</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one)							

CONTRACTOR Murfin B OWNER Same

TYPE OF JOB Spur Face

HOLE SIZE 12 1/4 T.D. \_\_\_\_\_

CASING SIZE 8 1/8 DEPTH 273'

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

RES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

SEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 15'

DISPLACEMENT 16.4348 Bbl Displacement

EQUIPMENT \_\_\_\_\_

UMP TRUCK CEMENTER Alan Ryan 1

402 HELPER Wayne Mubly 2

ULK TRUCK DRIVER Jeremy Stenger 3

404 DRIVER \_\_\_\_\_

COMMON	<u>210</u>	@ <u>16.25</u>	<u>3412.00</u>
POZMIX		@	
GEL		@	
CHLORIDE	<u>7</u>	@ <u>58.00</u>	<u>407.40</u>
SC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	<u>220.5 LF</u>	@ <u>2.10</u>	<u>463.05</u>
MILEAGE	<u>70 miles</u>	@ <u>10.00</u>	<u>700.00</u>
TOTAL			<u>5955.22</u>

REMARKS:

in log, Circulate, Mix Cement, Displacement 711.90

ment Red Circulate

Thank You

Alan Wayne, Jeremy

ORDER TO: Murfin Drilling Co

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB	<u>273'</u>		
PUMP TRUCK CHARGE			<u>1125.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>70 miles</u>	@ <u>7.00</u>	<u>490.00</u>
MANIFOLD		@	
LT Vehicle	<u>70 miles</u>	@ <u>4.00</u>	<u>280.00</u>

PLUG & FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		

TOTAL \_\_\_\_\_

SALES TAX (if Any) 278.85

TOTAL CHARGES 7,800.92

DISCOUNT (35) 2730.32 IF PAID IN 30 DAYS

PRINTED NAME Rodney Farr

NATURE Rodney Farr

I, Allied Oil & Gas Services, LLC, are hereby requested to rent cementing equipment I furnish cementer and helper(s) to assist owner or contractor to do work as 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.



P. O. Box 466  
 Ness City, KS 67560  
 Off: 785-798-2300



# Invoice

DATE	INVOICE #
8/30/2012	21871

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-18	Brewer	Decatur		Oil	Development	Cement Port Collar	Don
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				120	Miles	6.00	720.00
576D-D	Pump Charge - Port Collar - 2564 Feet				1	Job	1,250.00	1,250.00
290	D-Air				3	Gallon(s)	35.00	105.00T
330	Swift Multi-Density Standard (MIDCON II)				325	Sacks	16.50	5,362.50T
276	Flocele				82	Lb(s)	2.00	164.00T
581D	Service Charge Cement				325	Sacks	2.00	650.00
583D	Drayage				1,940.46	Ton Miles	1.00	1,940.46
	Subtotal							10,191.96
	Sales Tax Decatur County						7.30%	411.10
USED FOR <u>IC 103</u> APPROVED <u>JF</u>								
<b>We Appreciate Your Business!</b>							<b>Total</b>	\$10,603.06





CHARGE TO: Merlini Dug Co.  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET NO 21871

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. <u>Wells, KS</u>	<u>1-18</u>	<u>Boeuler</u>	<u>Decker</u>	<u>KS</u>		<u>8-30-12</u>	
2. <u>Ness City, KS</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Co.</u>	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.	
3.	WELL TYPE	WELL CATEGORY	JOB PURPOSE	<u>OT</u>	<u>Ness Merlini, KS</u>		
4.	REFERRAL LOCATION	INVOICE INSTRUCTIONS			WELL PERMIT NO.	WELL LOCATION	

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
<u>575</u>					<u># 113</u>							
<u>576-D</u>					<u>Pump Change - Curt P. Collar</u>							
<u>890</u>					<u>D-Air</u>							
<u>330</u>					<u>SUD Cement</u>							
<u>876</u>					<u>Fluocel</u>							
<u>581</u>					<u>Service Charge - Cement</u>							
<u>583</u>					<u>Drayage</u>							

SWIFT OPERATOR [Signature]

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

APPROVAL [Signature] Thank You!

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 8-30-12 TIME SIGNED 2:30  P.M.  P.M.

SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

REMIT PAYMENT TO:

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?

WE UNDERSTOOD AND MET YOUR NEEDS?

OUR SERVICE WAS PERFORMED WITHOUT DELAY?

WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?

ARE YOU SATISFIED WITH OUR SERVICE?

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1

TOTAL 10,003.00

JOB LOG

SWIFT Services, Inc.

DATE 8-30-12 PAGE NO. 1

CUSTOMER *Murkin Drilling Co*

WELL NO. 1-18

LEASE Brewer

JOB TYPE Cement Port Collar

TICKET NO. 21871

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0945							DN location
	1000					1000	1000	Setup JTS
		2	5				800	1st P.C closed @ 2574'
							C	Open P.C - inj rate - NO blow
		2 1/2	5			800		Hook to tbg
		2 1/2				700		start HD ahead - no blow
		3				800		start SMD cut - no blow
		3				900		@ 20 BBI cut - Have blow/circulation
		3	165			500		@ 300 SKS @ 11.2 #/gal - incr #/gal 25 SKS
		3				500		to 13 #/gal
		3	190			500		Fin cut - start Displ 9 BBI
		3	5			500		@ 5 BBI Displ Have cut cir
		0	9			500		Fin 9 BBI Displ
						C	1000	Close P.C to Tst - OK
								Run 5 JTS Tbg
								Red-out 2 flags clean
	1200							Fin Red-out - <del>FB</del> pull tbg & Tsd
								Wash up P.T.
								Reck up.
	1230							Job Complete
								Thanks
								Alan, Brian & Jeremy



P. O. Box 466  
Ness City, KS 67560  
Off: 785-798-2300



Acctg -

re: WPT  
: Liz  
: Leavel

# Invoice

DATE	INVOICE #
8/17/2012	21925

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-18	Brewer	Decatur	Company Rig #8	Oil	Development	LongString	Josh
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				120	Miles	6.00	720.00
578D-L	Pump Charge - Long String				1	Job	1,500.00	1,500.00
401-5	5 1/2" Insert Float With Auto Fill				1	Each	160.00	160.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	250.00	250.00T
409-5	5 1/2" Turbolizer				10	Each	90.00	900.00T
403-5	5 1/2" Cement Basket				2	Each	250.00	500.00T
404-5	5 1/2" Port Collar - 2573 Feet				1	Each	2,400.00	2,400.00T
413-5	5 1/2" Roto Wall Scratcher				10	Each	40.00	400.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
280	Flocheck 21				500	Gallon(s)	2.50	1,250.00T
325	Standard Cement				200	Sacks	13.50	2,700.00T
284	Calseal				10	Sack(s)	35.00	350.00T
283	Salt				1,082	Lb(s)	0.20	216.40T
285	CFR-1				141	Lb(s)	4.00	564.00T
276	Flocele				50	Lb(s)	2.00	100.00T
290	D-Air				2	Gallon(s)	35.00	70.00T
581D	Service Charge Cement				200	Sacks	2.00	400.00
583D	Drayage				1,260.78	Ton Miles	1.00	1,260.78
	Subtotal							14,041.18
	Sales Tax Decatur County						7.30%	741.71

USED FOR 10103  
APPROVED JIC

**We Appreciate Your Business!**

**Total**

\$14,782.89



CHARGE TO: Murfin Drly Co.  
 ADDRESS \_\_\_\_\_  
 CITY, STATE, ZIP CODE \_\_\_\_\_

TICKET NO. **21925**

PAGE 1 OF 2

1. <u>Hays</u>	WELL/PROJECT NO. <u>1-18</u>	LEASE <u>Brewer</u>	COUNTY/PARISH <u>Decatur</u>	STATE <u>KS</u>	CITY _____	DATE <u>8-17-12</u>	OWNER _____
2. <u>Ness City</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE	CONTRACTOR _____	RIG NAME/NO. <u>Roy 8</u>	SHIPPED VIA <input checked="" type="checkbox"/> CT	DELIVERED TO <u>Loc.</u>	ORDER NO. _____	
3. _____	WELL TYPE <u>Oil</u>	WELL CATEGORY <u>Develop</u>	JOB PURPOSE <u>Long String</u>	WELL PERMIT NO. <u>15-039-21156</u>	WELL LOCATION <u>Sec. 18 Twp 25 R 29 W</u>		
4. _____	INVOICE INSTRUCTIONS _____						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT							
575		1		MILEAGE #111	120	miles			6.00	720.00
578		1		Pump Charge	1	ea			1500.00	1500.00
401		1		Insert Flat Shoe	1	ea			160.00	160.00
406		1		Latch Down Plug & Baffle	1	ea			250.00	250.00
409		1		Turbolizers	10	ea			90.00	900.00
403		1		Cent Basket	2	ea			250.00	500.00
404		1		Post Collar @ 2573'	1	ea			2400.00	2400.00
413		1		Post wall scratchers	10	ea			40.00	400.00
419		1		Rotating Head	1	ea			200.00	200.00
221		1		KCL	4	gal			25.00	100.00
280		1		Flockcheck 21	500	gal			2.50	1250.00
See Continuation										

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS  
 DATE SIGNED 8-17-12 TIME SIGNED 0100  A.M.  P.M.

**REMIT PAYMENT TO:**  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

**SWIFT SERVICES, INC.**  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	19041.18
WE UNDERSTOOD AND MET YOUR NEEDS?					
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				TOTAL	14,782.89
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?					
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

SWIFT OPERATOR Josh Brownell APPROVAL \_\_\_\_\_  
 CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 Thank You!



PO Box 466.  
Ness City, KS 67560  
Off: 785-798-2300

**TICKET CONTINUATION**

TICKET No. 21925

CUSTOMER *Mufin Dry Co.* WELLY Brewer 1-18 DATE 8-17-12 PAGE 21 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY.	UM		
325		2				Standard Cut	200	SKs	13.50	2700.00
284		2				Calseal	10	SKs	35.00	350.00
283		2				Salt	1082	lbs.	20.00	21640.00
285		2				C-FR-1	141	lbs	4.00	564.00
276		2				Flo seal	50	lbs	2.00	100.00
290		1				O-Air	2	gal	35.00	70.00
581		2				SERVICE CHARGE			2.00	400.00
583		2				MILEAGE CHARGE			1.00	1260.78
							TOTAL WEIGHT			
							LOADED MILES			
							CUBIC FEET			
							TON MILES			

CONTINUATION TOTAL 5661.18

**JOB LOG**

**SWIFT Services, Inc.**

DATE 8-17-12 PAGE NO. 1

CUSTOMER: Murfin Orig Co WELL NO. 1-18 LEASE Brewer JOB TYPE LongString TICKET NO. 21925

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				F	C	TUBING	CASING	
	01:00							On Location Lay Down OP 5 1/2 15.5 Set at 4069 Inset float Shoe Latch Down Baffle at 4047.9 Cent. 1-9 35 Bskt. 35, 36 Port Collar Joint 36 at 2573' 50ft scratchers
	03:00							Start Casing Drop Ball Break circulation and Rotate
	06:00		15		✓			Start 15 BBL KCL 500 gal Flocheck 5 BBL KCL
	06:25		35.7		✓			Start Cmt 150 SKs EA-2 Finish Mixing Wash out Pump + Lines Drop Latch Down Plug
	06:45	6	96.3		✓			Start Displacement 800 Lift Pressure
	07:05	5			✓		1500	Plug Down Holding Release Plug Held
	07:15							Plug RH 30SKs MH 20 SKs
	07:30							Wash + Rack up Truck
								Job Complete
								Thank You Josh, Roger, David E, Jon