



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1223055  
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: \_\_\_\_\_

1223055

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

<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> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Allen 1-34
Doc ID	1223055

All Electric Logs Run

DIL
DUCP
MEL
BHCS
CBL







Prod-ME

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 143402

Invoice Date: May 23, 2014

Page: 1

Voice: (817) 546-7282

Fax: (817) 246-3361

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	62940	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	May 23, 2014	6/22/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Allen #1-34		
275.00	CEMENT MATERIALS	Class A Common	17.90	4,922.50
775.00	CEMENT MATERIALS	Chloride	0.80	620.00
100.00	CEMENT MATERIALS	Sugar	1.27	127.00
288.75	CEMENT SERVICE	Cubic Feet Charge	2.48	716.10
334.00	CEMENT SERVICE	Ton Mileage Charge	2.60	868.40
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
25.00	CEMENT SERVICE	Pump Truck Mileage	7.70	192.50
25.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	110.00
1.00	EQUIPMENT SALES	9-5/8 Rubber Plug	360.00	360.00
1.00	CEMENT SUPERVISOR	Joshua Isaac		
1.00	EQUIPMENT OPERATOR	Mike Scothorn		
1.00	OPERATOR ASSISTANT	Brian Lang		

Subtotal	9,428.75
Sales Tax	431.11
Total Invoice Amount	9,859.86
Payment/Credit Applied	
<b>TOTAL</b>	<b>9,859.86</b>

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

\$ 3,174.06

ONLY IF PAID ON OR BEFORE  
Jun 22, 2014

*Handwritten initials/signature*

# ALLIED OIL & GAS SERVICES, LLC 062940

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

*Grand*

DATE <u>5-23-14</u>	SEC. <u>34</u>	TWP. <u>22</u>	RANGE <u>12</u>	CALLED OUT	ON LOCATION <u>12:45pm</u>	JOB START <u>3:00pm</u>	JOB FINISH <u>5:30pm</u>
LEASE <u>Allen</u>	WELL # <u>1-34</u>	LOCATION <u>Hudson 1 E 15</u>			COUNTY <u>Stafford</u>	STATE <u>TX</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Martin 21  
TYPE OF JOB Surface

HOLE SIZE \_\_\_\_\_ T.D. \_\_\_\_\_  
CASING SIZE 9 5/8 DEPTH 295.34  
TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_  
TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
CEMENT LEFT IN CSG. 17Ft  
PERFS. \_\_\_\_\_  
DISPLACEMENT 21.67 bbl fresh water

EQUIPMENT

PUMP TRUCK CEMENTER John Keane  
# 597 HELPER Mike Scobee  
BULK TRUCK \_\_\_\_\_  
# 544 DRIVER Brian Lang  
BULK TRUCK \_\_\_\_\_  
# \_\_\_\_\_ DRIVER \_\_\_\_\_

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 2.75 Class A 3 1/4  
100 lbs Sugar

COMMON <u>275</u>	@ <u>17.90</u>	<u>4,922.50</u>
POZMIX _____	@ _____	_____
GEL _____	@ _____	_____
CHLORIDE <u>775</u>	@ <u>.80</u>	<u>620.00</u>
ASC _____	@ _____	_____
<u>100 Sugar</u>	@ <u>1.27</u>	<u>127.00</u>
Materials Total @		<u>5,669.50</u>
Disc @ <u>35%</u>		<u>1,984.33</u>
Service @		_____
HANDLING <u>288.75</u>	@ <u>2.48</u>	<u>716.10</u>
MILEAGE <u>13.36 x 25%</u>	<u>2.60</u>	<u>868.40</u>

REMARKS:

On location pip up - had safety meeting  
for 95% casing - break location w/ log and  
prop 5 bbl fresh water  
mix 2.75 sec class A 3 1/4 cc  
prop mix  
Displaced 21.67 bbl fresh water  
start 3:15pm  
Cement did cure

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @ \_\_\_\_\_

MILEAGE Hum 25 @ 7.70 192.50

MANIFOLD @ \_\_\_\_\_

hum 25 @ 4.40 110.00

CHARGE TO: Martin Billing

STREET \_\_\_\_\_

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

TOTAL 3,399.25  
35% 1,189.23

PLUG & FLOAT EQUIPMENT

Rubber Plug @ 360.00 360.00

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

(0%) TOTAL 360.00

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 X Juan Tinoco

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 9,428.75 (35/35/0)  
3,174.06

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
6,254.69

SIGNATURE X Juan Tinoco  
Thank you!!



Prod-MG

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 143400  
Invoice Date: May 24, 2014  
Page: 1

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

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	61800	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	May 24, 2014	6/23/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Allen #1-34		
470.00	CEMENT MATERIALS	Chloride	0.80	376.00
250.00	CEMENT MATERIALS	ASC	20.90	5,225.00
32.00	CEMENT MATERIALS	Defoamer	9.80	313.60
70.00	CEMENT MATERIALS	FL-160	18.90	1,323.00
100.00	CEMENT MATERIALS	Sugar	1.27	127.00
1,300.00	CEMENT MATERIALS	Kol Seal	0.98	1,274.00
324.95	CEMENT SERVICE	Cubic Feet Charge	2.48	805.88
351.25	CEMENT SERVICE	Ton Mileage Charge	2.60	913.25
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
25.00	CEMENT SERVICE	Pump Truck Mileage	7.70	192.50
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
25.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	110.00
1.00	EQUIPMENT SALES	9-5/8 Rubber Plug	360.00	360.00
1.00	EQUIPMENT OPERATOR	Mike Scothorn		
1.00	OPERATOR ASSISTANT	Kevin Weighous		

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

\$ 4,356.61

ONLY IF PAID ON OR BEFORE  
Jun 23, 2014

Subtotal	12,807.48
Sales Tax	643.40
Total Invoice Amount	13,450.88
Payment/Credit Applied	
<b>TOTAL</b>	<b>13,450.88</b>

OK  
JR



# ALLIED OIL & GAS SERVICES, LLC 061800

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:  
Grand Bend US

DATE <u>5-24-14</u>	SEC. <u>34</u>	TWP. <u>22</u>	RANGE <u>12</u>	CALLED OUT	ON LOCATION <u>9:00pm</u>	JOB START <u>10:30 PM</u>	JOB FINISH <u>11:30 PM</u>
LEASE <u>Allen</u>	WELL# <u>1-34</u>	LOCATION <u>Hudson 1 East 1 South</u>			COUNTY <u>Stafford</u>	STATE <u>US</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR <u>Martin</u> TYPE OF JOB <u>Surface</u> HOLE SIZE _____ T.D. _____ CASING SIZE <u>9 5/8 36"</u> DEPTH <u>313</u> TUBING SIZE _____ DEPTH _____ DRILL PIPE _____ DEPTH _____ TOOL _____ DEPTH _____ PRES. MAX _____ MINIMUM _____ MEAS. LINE _____ SHOE JOINT <u>20</u> CEMENT LEFT IN CSG. <u>20</u> PERFS. _____ DISPLACEMENT <u>22.50 Fresh water</u>	OWNER <u>Martin</u> CEMENT AMOUNT ORDERED <u>250 5x ASC + 10% 55' + 2% gal + 6% Gys + 5# Kalsol + .3%</u> <u>F1-160 + 2% Acc + 7 DF</u> COMMON _____ @ _____ POZMIX _____ @ _____ GEL _____ @ _____ CHLORIDE <u>470</u> @ <u>.80</u> <u>376.00</u> ASC <u>250</u> @ <u>20.90</u> <u>5,225.00</u> DF <u>32</u> @ <u>9.80</u> <u>313.60</u> F1-160 <u>70</u> @ <u>18.90</u> <u>1,323.00</u> Sycc- <u>100#</u> @ <u>1.27</u> <u>127.00</u> Kalsol <u>1300</u> @ <u>.98</u> <u>1,274.00</u> Materials total @ _____ <u>8,638.60</u> Disc @ <u>35%</u> <u>3023.51</u> Service _____ HANDLING <u>324.95</u> @ <u>2.48</u> <u>805.87</u> MILEAGE <u>14.05 x 25 x</u> <u>2.60</u> <u>913.25</u>
EQUIPMENT PUMP TRUCK CEMENTER <u>Wayne Davis</u> # <u>597</u> HELPER <u>Mike Scathan</u> BULK TRUCK # <u>878-844</u> DRIVER <u>Kevin Weighaus</u> BULK TRUCK # _____ DRIVER _____	

REMARKS:  
Rig up had Satley meeting  
went over Numbers with  
Tool Pusher  
Breaker Circulation 6 Bbl/min  
at 200 PSI Start mix Cement  
250 5x shut down Release Plug  
Start Displacement 22.50 Bbls  
Load Plug at 200 PSI Cement  
did circulate circulate 70 5x  
To Pit

CHARGE TO: Martin Drilling Co., Inc.  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

DEPTH OF JOB		
PUMP TRUCK CHARGE		<u>1512.25</u>
EXTRA FOOTAGE	@	
MILEAGE Hum 25	@ <u>7.70</u>	<u>192.50</u>
MANIFOLD	@ <u>275.00</u>	<u>275.00</u>
Hum 25	@ <u>4.40</u>	<u>110.00</u>
	@	
		<b>TOTAL <u>3,808.87</u></b>
		<b>(35%) <u>1,333.10</u></b>

**PLUG & FLOAT EQUIPMENT**

Rubber Plug	@ <u>360.00</u>	<u>360.00</u>
	@	
	@	
	@	
	@	
		<b>(0%) TOTAL <u>360.00</u></b>

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 Juan Tinoco  
 SIGNATURE Juan Tinoco

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 12,507.47  
 DISCOUNT 4,355.61 (35/35%)  
 IF PAID IN 30 DAYS  
8,452.86



PAGE 1 of 2	CUST NO 1002852	INVOICE DATE 06/04/2014
INVOICE NUMBER 1718 - 91508126		

Pratt (620) 672-1201

B MURFIN DRILLING  
I PO Box: 288  
L RUSSELL  
L KS US 67665  
T  
O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Allen 1-34  
O LOCATION  
B COUNTY Stafford  
S STATE KS  
I JOB DESCRIPTION Cement-New Well Casing/Pi  
T JOB CONTACT  
E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40729497	19905		Net - 30 days	07/04/2014
<b>For Service Dates: 06/03/2014 to 06/03/2014</b>				
0040729497				
171810430A Cement-New Well Casing/Pi 06/03/2014 Cement 5 1/2" Longstring				
AA2 Cement	270.00	EA	12.75	3,442.39 T
A-Con Blend Common	340.00	EA	13.50	4,589.86 T
Celloflake	85.00	EA	2.77	235.87 T
C-41P	64.00	EA	3.00	191.99 T
Calcium Chloride	960.00	EA	0.79	755.98 T
Salt	1,337.00	EA	0.37	501.36 T
Cement Friction Reducer	77.00	EA	4.50	346.49 T
C-44	254.00	EA	3.86	981.04 T
FLA-322	127.00	EA	5.62	714.35 T
Mud Flush	500.00	EA	1.12	562.48 T
Gilsonite	1,350.00	EA	0.50	678.35 T
"Two Stage Cement Collar, 5 1/2" (Red)"	1.00	EA	4,574.86	4,574.86
"5 1/2" Latch Down Plug & Assembly (Red)	1.00	EA	637.48	637.48
"Auto Fill Float Shoe 5 1/2" (Blue)"	1.00	EA	269.99	269.99
"Turbolizer, 5 1/2" (Blue)"	12.00	EA	82.50	989.97
"5 1/2" Basket (Blue)"	1.00	EA	217.49	217.49
"Cement Scratchers Cable Type, 7""	20.00	EA	37.50	749.98
"Unit Mileage Chg (PU, cars one way)"	35.00	MI	3.19	111.56
Heavy Equipment Mileage	105.00	MI	5.25	551.23
"Proppant & Bulk Del. Chgs., per ton mil	1,005.00	EA	1.65	1,658.20
Depth Charge; 1001'-2000'	1.00	EA	1,124.97	1,124.97
Depth Charge; 3001-4000'	1.00	EA	1,619.95	1,619.95
Blending & Mixing Service Charge	610.00	BAG	1.05	640.48
Casing Swivel Rental	1.00	EA	150.00	150.00

USED FOR IC 103  
APPROVED [Signature]



PAGE 2 of 2	CUST NO 1002852	INVOICE DATE 06/04/2014
INVOICE NUMBER 1718 - 91508126		

Pratt (620) 672-1201  
 B MURFIN DRILLING  
 I PO Box: 288  
 L RUSSELL  
 L KS US 67665  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Allen 1-34  
 O LOCATION  
 B COUNTY Stafford  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40729497	19905		Net - 30 days	07/04/2014

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
Plug Container Util. Chg.	1.00	EA	187.49	187.49
"Service Supervisor, first 8 hrs on loc.	1.00	EA	131.25	131.25

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	26,615.06
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	929.51
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	27,544.57
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



**BASIC**<sup>SM</sup>  
ENERGY SERVICES

PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 10430 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>6-3-14</b> DISTRICT <b>Pratt</b>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:				
CUSTOMER <b>Mykon Drilling Co Inc</b>		LEASE <b>Allen</b>		WELL NO. <b>1-3</b>		
ADDRESS		COUNTY <b>STARBUCK</b>		STATE <b>KS</b>		
CITY STATE		SERVICE CREW <b>Pratt, Kansas, E. Miller</b>				
AUTHORIZED BY		JOB TYPE: <b>CRW Logging 2 string</b>				
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED <b>6-2-14</b> DATE <b>AM</b> TIME <b>5:30</b>
<b>77580</b>	<b>5</b>					ARRIVED AT JOB <b>AM</b> TIME <b>8:00</b>
		<b>19831/19802</b>	<b>5</b>			START OPERATION <b>6</b> <b>AM</b> TIME <b>11:45</b>
<b>77086/19905</b>	<b>5</b>					FINISH OPERATION <b>6-3-14</b> <b>AM</b> TIME <b>4:15</b>
<b>19826/19960</b>	<b>5</b>					RELEASED <b>AM</b> TIME <b>5:15</b>
						MILES FROM STATION TO WELL <b>35</b>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *Mark R. Miller*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
PT05	AA-2 CMT	SK	270		3,740.00
101	Acua Blend CMT	SK	340		6,120.00
PT105	AA-2 CMT	SK	50		850.00
CC102	Cellofloc	1B	85		314.50
CC105	C-41 P	1B	64		256.00
CC109	Calcium Chloride	1B	960		1,008.00
CC111	SALT	10	1337		668.50
CC112	CMT Friction Reducer	1B	77		462.00
CC115	C-44	1B	254		1,308.00
CC129	F10-322	1B	127		952.50
CC201	Gilsonite	1B	1350		904.50
CC401	Two Stage CMT Collar 5 1/2	EA	1		6100.00
CC601	5 1/2 Latch Down Plug & Assembly 5 1/2	EA	1		850.00
CC1251	Autobill Front Shox 5 1/2	EA	1		360.00
CC1651	Tubulocw 5 1/2	EA	12		1,320.00
CC1901	BASKET 5 1/2	EA	1		270.00
CC2002	CMT SCRATCHER COMPACTOR	EA	20		1,000.00

CHEMICAL / ACID DATA:			

SUB TOTAL		<b>NA</b>
SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE **MIKE MATTHEW** THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY *Mark R. Miller*  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. \_\_\_\_\_



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET

~~1718-10431~~ A

CONTINUATION OF 1718 10430

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>6-3-14</b> DISTRICT <b>Pratt</b>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:								
CUSTOMER <b>MURKIN Drilling Co Inc</b>		LEASE <b>Allen</b> WELL NO. <b>31</b>								
ADDRESS		COUNTY <b>STAFFORD</b> STATE <b>K</b>								
CITY STATE		SERVICE CREW								
AUTHORIZED BY		JOB TYPE:								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
						ARRIVED AT JOB				
						START OPERATION				
						FINISH OPERATION				
						RELEASED				
						MILES FROM STATION TO WELL				

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *Mark Keller*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CC 251	Mud flush	gal	500		750 00
E 100	P.U. M.I.C.	Mi	55		148 75
E 101	HEAVY eq miles	Mi	105		735 00
E 113	PROP + Bulk Delivery	PM	1005		2,209 40
E 204	DEPTH charge 3001-4000'	4hr	1		2,160 00
CP 240	BLAND + MIX CHARGE	SA	610		854 00
CP 501	CSAG swivel	EA	1		200 00
CP 504	Plug container	JOB	1		250 00
CP 202	DEPTH charge 1001-2000'	4hr	1		1,500 00
5003	Service supervision	SA	1		175 00

CHEMICAL / ACID DATA:			

SUB TOTAL		26,615 06
SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE <i>M. K. MATTHEW</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>Mark Keller</i>
---	--

FIELD SERVICE ORDER NO. \_\_\_\_\_

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

Customer Markin Drilling Inc	Lease No.	Date 6-3-14
Lease Allen	Well # 1-34-#	
Field Order # 10430	Station Pratt	Casing 5 1/2
		Depth 3881
Type Job C/W Logging 2 Stages	Formation	County STAFFORD
		State KS
		Legal Description 34-22-12

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
5 1/2								
Depth 3881	Depth	From	To	Pre Pad	Max		5 Min.	
Volume 90.2	Volume	From	To	Pad	Min		10 Min.	
Max Press 1500	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 3857.33	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative Juan Tinoco	Station Manager Kevin Gaudin	Treater Mike Mattai
--	---------------------------------	------------------------

Service Units	37556	77686	19905	19826	19860	19831	19862
Driver Names	MATTI	SPR		ERAST		ERAST	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
8:00 AM					ON LOCATION
8:52					Run 5 1/2 17# casing D.V. Tool @ 1676'
					Twistlock on 1, 3, 5, 7, 9, 11, 13, 15, 19, 49, 52
					BASED ON 50
10:20					Casing on BOTTOM
10:40					HOOK UP TO CASING / BIRMINGHAM W.R. 3
11:45	250		5	5	PUMP 5 BBL WATER
11:46	250		12	5	PUMP 12 BBL AND FLUSH
11:48	250		5	5.5	PUMP 5 BBL WATER
11:50	200		56	5.5	MIX 220 GAL AA-2 CONT
12:05			4	3	WASH PUMP + LINE, DROP PLUG
12:10	100		90	6	START WATER DISTRIBUTION
12:17	100		50	5	START MAIN DISTRIBUTION
12:20	200		56	4.5	L.H.I. PRESSURE
12:20	350		80	3.5	STOP ROTATING
12:30	800/150		90		PLUG DOWN, FLOWED + H/II
12:37					DROP OPERATING TOOL
12:53					OPEN TOOL
1:00					CIRCULATE W. RIG

Customer Markin Drilling		Lease No.		Date 6-3-14	
Lease A/10A		Well # 1-34			
Field Order # 106130	Station Pratt	Casing	Depth	County	State
Type Job			Formation	Legal Description	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth	Depth	From	To	Pre Pad		Max		5 Min.
Volume	Volume	From	To	Pad		Min		10 Min.
Max Press	Max Press	From	To	Frac		Avg		15 Min.
Well Connection	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative				Station Manager				Treater			
Service Units											
Driver Names											

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:15	200	/	150	6	MIX 3% SK, A. COA 241
3:43	-	/	4	3	WASH PUMP & LINE, REHAS. Plug
3:46	200	/		6	START DISPLACEMENT
3:57	300	/	30	4	SLOW RATE
3:59	1500	/	39		PLUG DOWN, INCREASED RATE
4:10		/	7.5		PLUG AT + MON. HOLD
					CIRCULATION THROUGH JOB
					7444 KONT.
					M. K. 2417A1

Daily Drilling Report

Allen #1-34

Page Two

- 5/30/14 Depth 3395'. Cut: 136'. DT: None. CT: 19 ½ hrs. Dev.: ¾° @ 3395'. **DST #1 3323-3395 (LKC B-F)**: 30-60-30-60. IF: built to 1¼" then would surge. FF: no blw, blushed @ 1:50, few bubbles then died. Rec.: 70'M w/oil spts. HP: 1656-1620. FP: 29/73, 42/52. SIP: 895-974. BHT: 109°.
- 5/31/14 Depth 3649'. Cut 254'. DT: None. CT: 15¼ hrs. Dev.: None. Core #1 3594'-3649'
- 6/1/14 Depth 3716'. Cut 67'. DT: None. CT: 24 hrs. Dev.: None. Core #2 3649-3679'. **Viola**: Chert, weathered, saturated w/blk asphaltic stain-GSO in mud. **DST #2 3534 – 3716 (Viola)**: Packers failed. Picked up & re-set tool using more weight. Packers failed. Misrun.
- 6/2/14 RTD: 3881'. Cut 165'. DT: None. CT: None. Dev.: None. Core #3 3679-3716'. **DST #3 3530-3716 (Viola)**: 30-60-60-90. IF: strng blw. BOB in 14mins. ISI: wk blw ¾" – 1". FF: Strng blw BOB in 13 mins. FSI: fr blw increase to 11". Rec.: 860'GIP, 100'CGO (21%G, 79%O), 125'GO CM (34%G, 30%O, 36%M), 240'GO CM (32%G, 21%O, 47%M) HP: 1774-1738. FP: 57/168, 185/232. SIP: 857-788. BHT: 109°. HC @ 4:00AM 6/2.
- 6/3/14 RTD: 3881'. CT: 24hrs. Dev.: ½° @ 3880'. Halliburton logged 10:30AM – 2:00PM 6/2/14, LTD: 3886'. Ran 90jts of 5 ½" prod csg, set @ 3881'. Basic cmt w/220sxs AA2. PD @ 12:30AM 6/3. DV set @ 1678', cmt w/340sxs A-con. PD @ 4:00AM 6/3. 30sxs RH, 20sxs MH. Circ to pit.
- 6/4/14 RTD: 3881'. CT: 1hr. RR @ 8:00AM 6/3/14. FINAL REPORT

Allen #1-34 660' FSL 330' FWL Sec. 34-22S-12W 1847' KB							Rank OWWO #1-2 4620FSL 330FWL Sec. 2-23S-12W 1836' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	620	+1227	-8	620	+1227	-8	601	+1235
B/Anhydrite	649	+1198	-15	638	+1209	-4	623	+1213
Stotler				2559	-712	+8	2556	-720
Topeka	2785	-938	+17	2798	-951	+4	2791	-955
Heebner	3152	-1305	+24	3155	-1308	+21	3165	-1329
Lansing	3286	-1439	+25	3289	-1442	+24	3302	-1466
Stark	3505	-1658	+26	3504	-1657	+27	3520	-1684
BKC	3553	-1706	+29	3556	-1709	+28	3573	-1737
Viola	3624	-1777	+35	3579	-1732	+80	3648	-1812
Simpson	3697	-1850	+53	3680	-1833	+70	3739	-1903
Arbuckle	3762	-1915	+60	3736	-1889	+86	3811	-1975
RTD	3881						3900	
LTD				3886			3894	





## DRILL STEM TEST REPORT

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

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Tim Pierce

### **Allen #1-34**

#### **34-22s-12w Stafford,KS**

Start Date: 2014.05.29 @ 19:40:00

End Date: 2014.05.30 @ 04:55:30

Job Ticket #: 58898                      DST #: 1

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

Printed: 2014.06.03 @ 14:37:55



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 58898

**DST#: 1**

ATTN: Tim Pierce

Test Start: 2014.05.29 @ 19:40:00

## GENERAL INFORMATION:

Formation: **LKC "B-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:16:30

Time Test Ended: 04:55:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 49

**Interval: 3323.00 ft (KB) To 3395.00 ft (KB) (TVD)**

Reference Elevations: 1847.00 ft (KB)

Total Depth: 3395.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 8.75 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 52.00 psig @ 3328.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.29

End Date:

2014.05.30

Last Calib.:

2014.05.30

Start Time: 19:40:01

End Time:

04:55:30

Time On Btm:

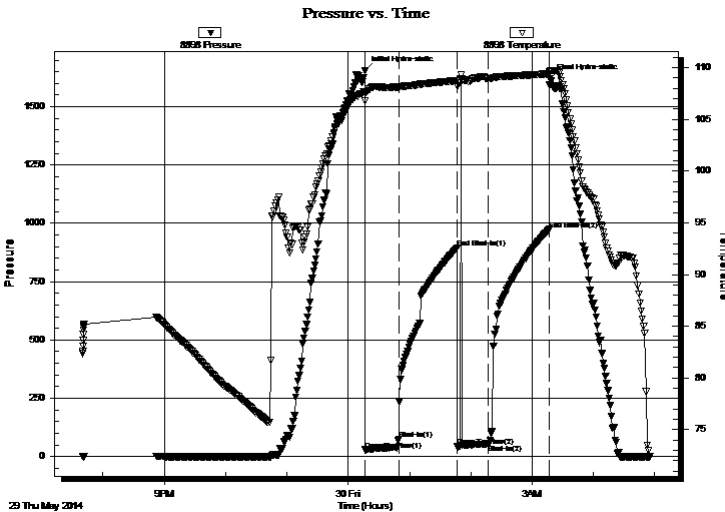
2014.05.30 @ 00:16:20

Time Off Btm:

2014.05.30 @ 03:17:39

**TEST COMMENT:** 30-IF-Built to 1 1/4", then would surge.  
60-ISI-No Return  
30-FF-No blow, Flushed at 01:50, few bubbles then died  
60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.80	107.65	Initial Hydro-static
1	28.93	106.78	Open To Flow (1)
34	73.47	108.12	Shut-In(1)
91	894.89	108.75	End Shut-In(1)
91	42.16	108.21	Open To Flow (2)
121	52.00	108.92	Shut-In(2)
181	973.90	109.40	End Shut-In(2)
182	1619.89	109.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	M, 100% m, with oil spots	0.34

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 58898

**DST#: 1**

ATTN: Tim Pierce

Test Start: 2014.05.29 @ 19:40:00

### GENERAL INFORMATION:

Formation: **LKC "B-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:16:30

Time Test Ended: 04:55:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 49

**Interval: 3323.00 ft (KB) To 3395.00 ft (KB) (TVD)**

Reference Elevations: 1847.00 ft (KB)

Total Depth: 3395.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 8.75 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8897** Inside

Press@RunDepth: psig @ 3328.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.29 End Date: 2014.05.30

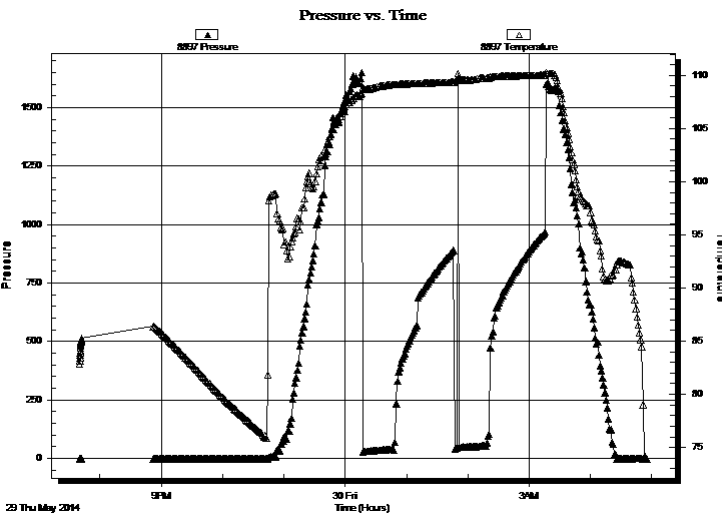
Last Calib.: 2014.05.30

Start Time: 19:40:01 End Time: 04:55:30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IF-Built to 1 1/4", then would surge.  
60-ISI-No Return  
30-FF-No blow, Flushed at 01:50, few bubbles then died  
60-FSI-No Return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
70.00	M, 100%m, w with oil spots	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.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 58898

**DST#: 1**

ATTN: Tim Pierce

Test Start: 2014.05.29 @ 19:40:00

## Tool Information

Drill Pipe:	Length: 3076.00 ft	Diameter: 3.80 inches	Volume: 43.15 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 44.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3323.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.00 ft			
Tool Length:	92.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3308.00	
Hydraulic tool	5.00			3313.00	
Packer	5.00			3318.00	20.00 Bottom Of Top Packer
Packer	5.00			3323.00	
Stubb	1.00			3324.00	
Perforations	3.00			3327.00	
Change Over Sub	1.00			3328.00	
Recorder	0.00	8897	Inside	3328.00	
Recorder	0.00	8898	Outside	3328.00	
Drill Pipe	63.00			3391.00	
Change Over Sub	1.00			3392.00	
Bullnose	3.00			3395.00	72.00 Bottom Packers & Anchor

**Total Tool Length: 92.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 58898

**DST#: 1**

ATTN: Tim Pierce

Test Start: 2014.05.29 @ 19:40:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 15.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12100.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	M, 100%m, with oil spots	0.344

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

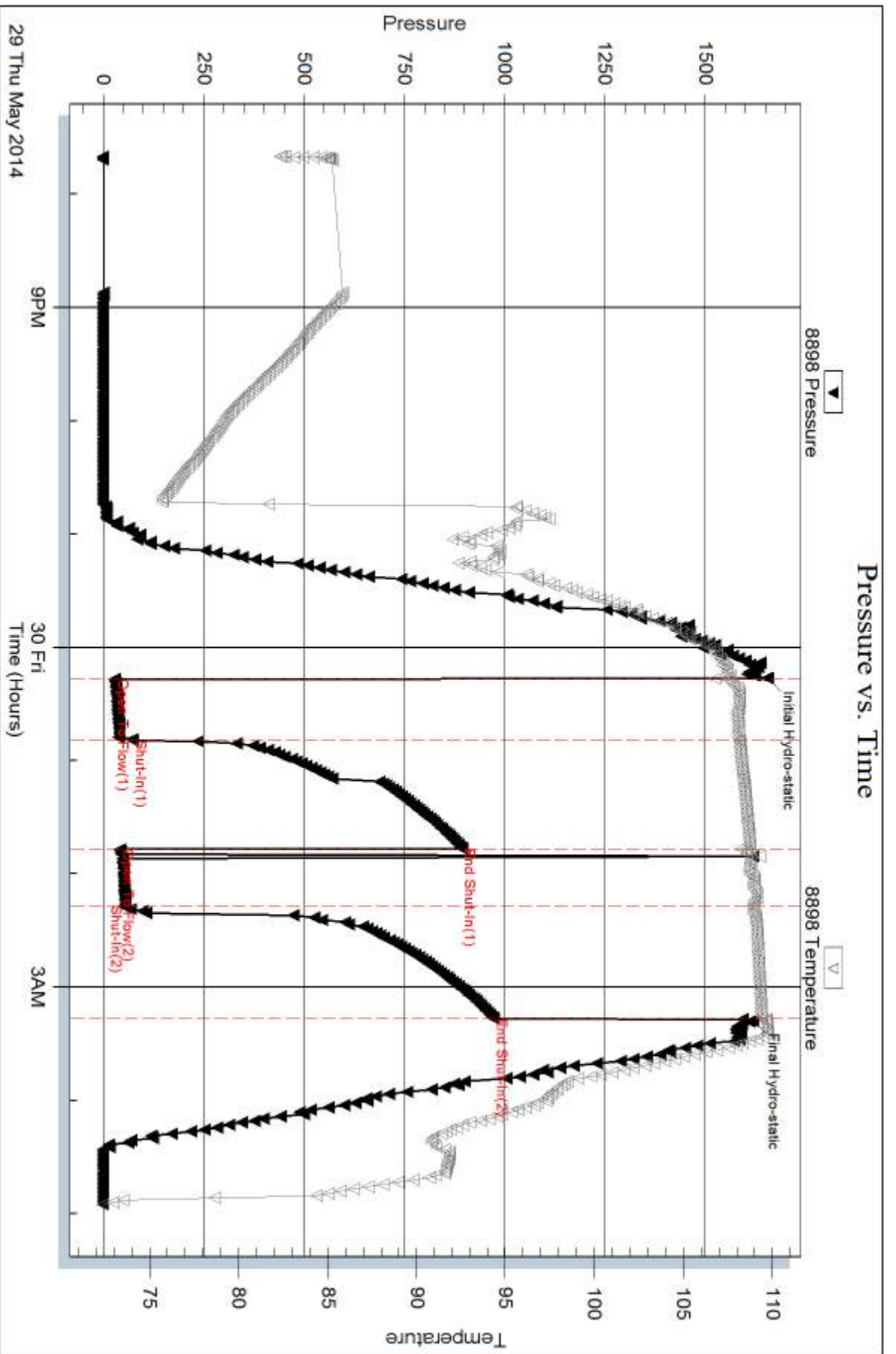
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



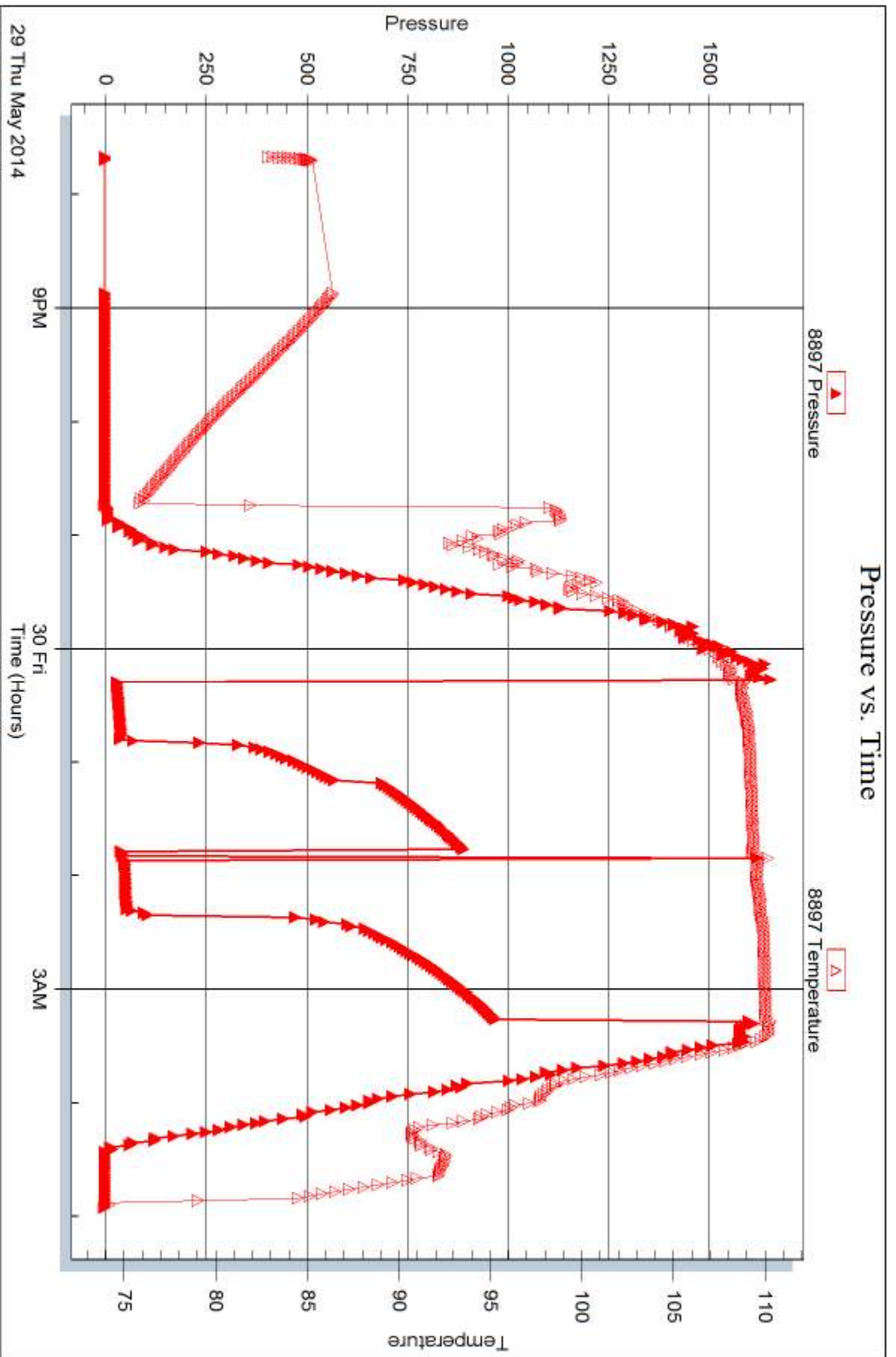
Serial #: 8897

Inside

Murfin Drilling Co, Inc.

Allen #1-34

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58898

Printed: 2014.06.03 @ 14:37:56



## DRILL STEM TEST REPORT

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

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Tim Pierce

### **Allen #1-34**

#### **34-22s-12w Stafford,KS**

Start Date: 2014.06.01 @ 04:34:19

End Date: 2014.06.01 @ 09:25:19

Job Ticket #: 54217                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.03 @ 14:37:31





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.  
 250 N Water Ste 300  
 Wichita, KS 67202  
 ATTN: Tim Pierce

**34-22s-12w Stafford,KS**

**Allen #1-34**

Job Ticket: 54217

**DST#: 2**

Test Start: 2014.06.01 @ 04:34:19

## GENERAL INFORMATION:

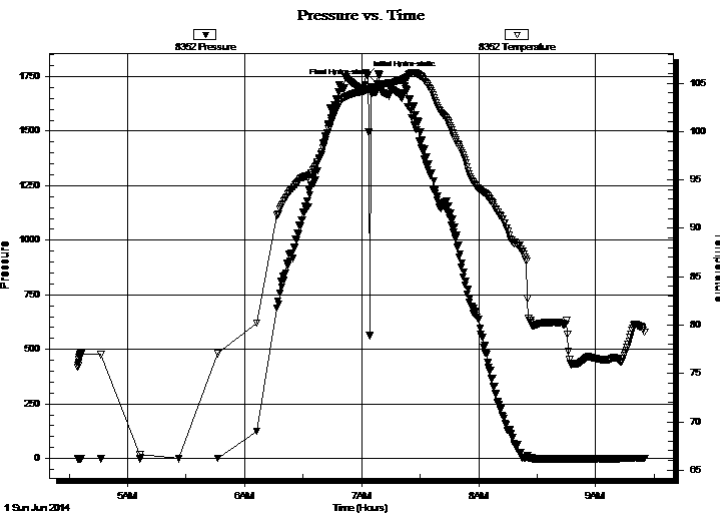
Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 09:25:19  
 Interval: **3534.00 ft (KB) To 3716.00 ft (KB) (TVD)**  
 Total Depth: 3716.00 ft (KB) (TVD)  
 Hole Diameter: 8.75 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gary Pevoteaux  
 Unit No: 56  
 Reference Elevations: 1847.00 ft (KB)  
 1836.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8352**

**Outside**

Press@RunDepth: psig @ 3535.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.06.01 End Date: 2014.06.01 Last Calib.: 2014.06.01  
 Start Time: 04:34:24 End Time: 09:25:18 Time On Btm: 2014.06.01 @ 07:02:49  
 Time Off Btm: 2014.06.01 @ 07:08:04

**TEST COMMENT:** IF: Strong blow. Packers failed. Picked up & re-set tool using more string w eight.  
 Packers failed. Misrun.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1756.26	104.36	Initial Hydro-static
6	1716.10	104.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
400.00	Drig. mud.	3.42

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Tim Pierce

**34-22s-12w Stafford,KS**

**Allen #1-34**

Job Ticket: 54217

**DST#: 2**

Test Start: 2014.06.01 @ 04:34:19

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 09:25:19

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3534.00 ft (KB) To 3716.00 ft (KB) (TVD)**

Reference Elevations: 1847.00 ft (KB)

Total Depth: 3716.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 8.75 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

**Serial #: 8370**

**Inside**

Press@RunDepth: psig @ 3535.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.01

End Date:

2014.06.01

Last Calib.:

2014.06.01

Start Time: 04:29:37

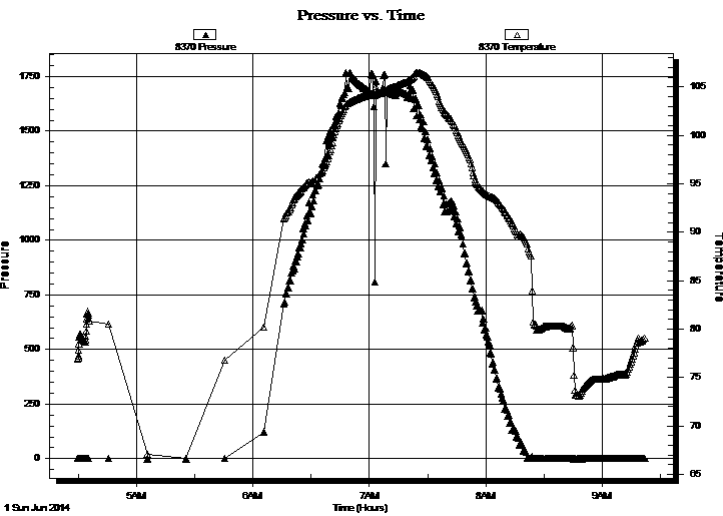
End Time:

09:22:01

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: Strong blow. Packers failed. Picked up & re-set tool using more string w eight.  
Packers failed. Misrun.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
400.00	Drig. mud.	3.42

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 54217

**DST#: 2**

ATTN: Tim Pierce

Test Start: 2014.06.01 @ 04:34:19

## Tool Information

Drill Pipe:	Length: 3303.00 ft	Diameter: 3.80 inches	Volume: 46.33 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 47.51 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3534.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	182.00 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			3515.00	
Shut In Tool	5.00			3520.00	
Hydraulic tool	5.00			3525.00	
Packer	4.00			3529.00	20.00 Bottom Of Top Packer
Packer	5.00			3534.00	
Stubb	1.00			3535.00	
Recorder	0.00	8352	Outside	3535.00	
Recorder	0.00	8370	Inside	3535.00	
Perforations	13.00			3548.00	
Blank Spacing	158.00			3706.00	
Perforations	5.00			3711.00	
Bullnose	5.00			3716.00	182.00 Bottom Packers & Anchor

**Total Tool Length: 202.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 54217

**DST#: 2**

ATTN: Tim Pierce

Test Start: 2014.06.01 @ 04:34:19

## 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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 19000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
400.00	Drig. mud.	3.425

Total Length: 400.00 ft      Total Volume: 3.425 bbl

Num Fluid Samples: 0

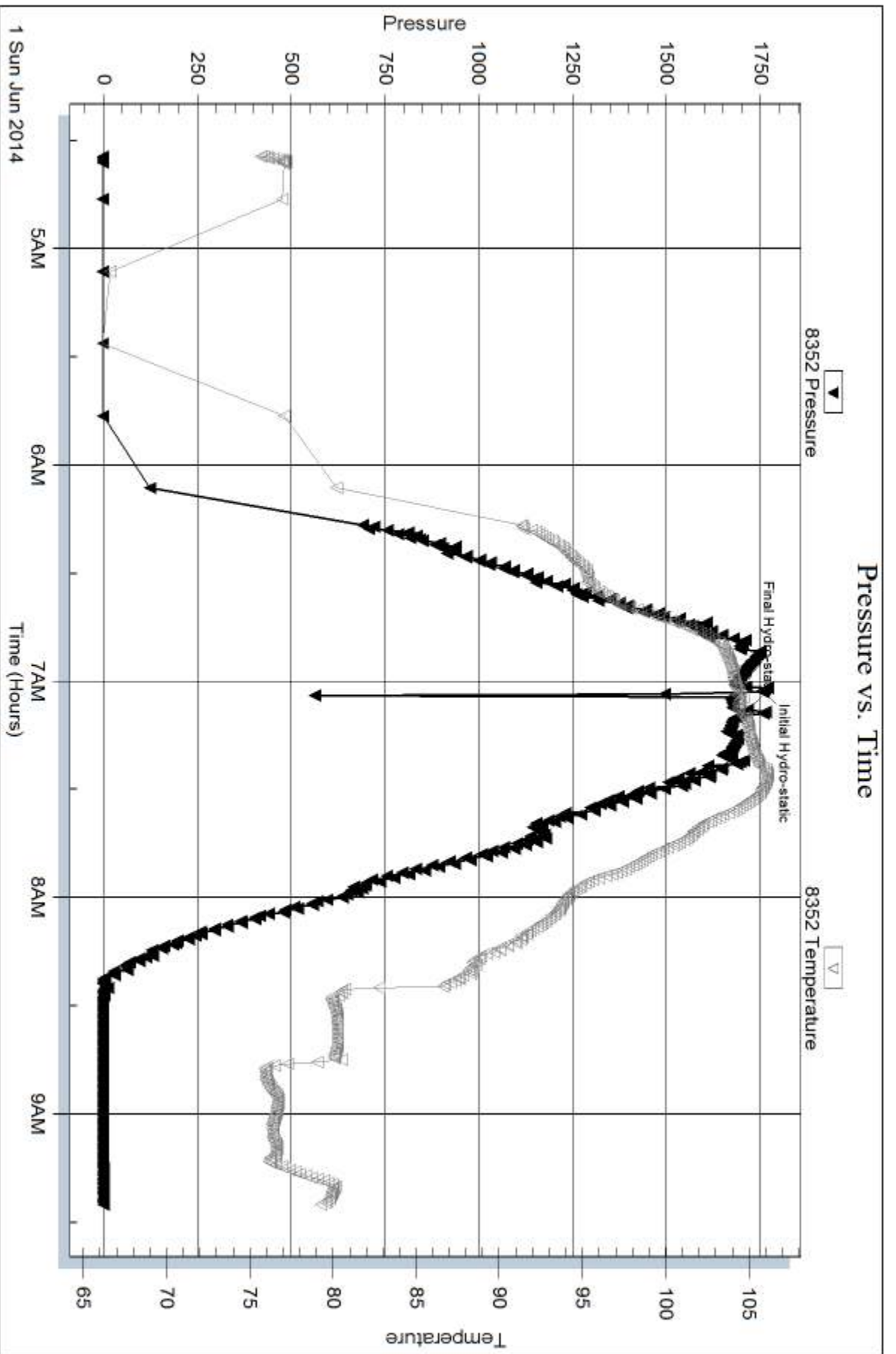
Num Gas Bombs: 0

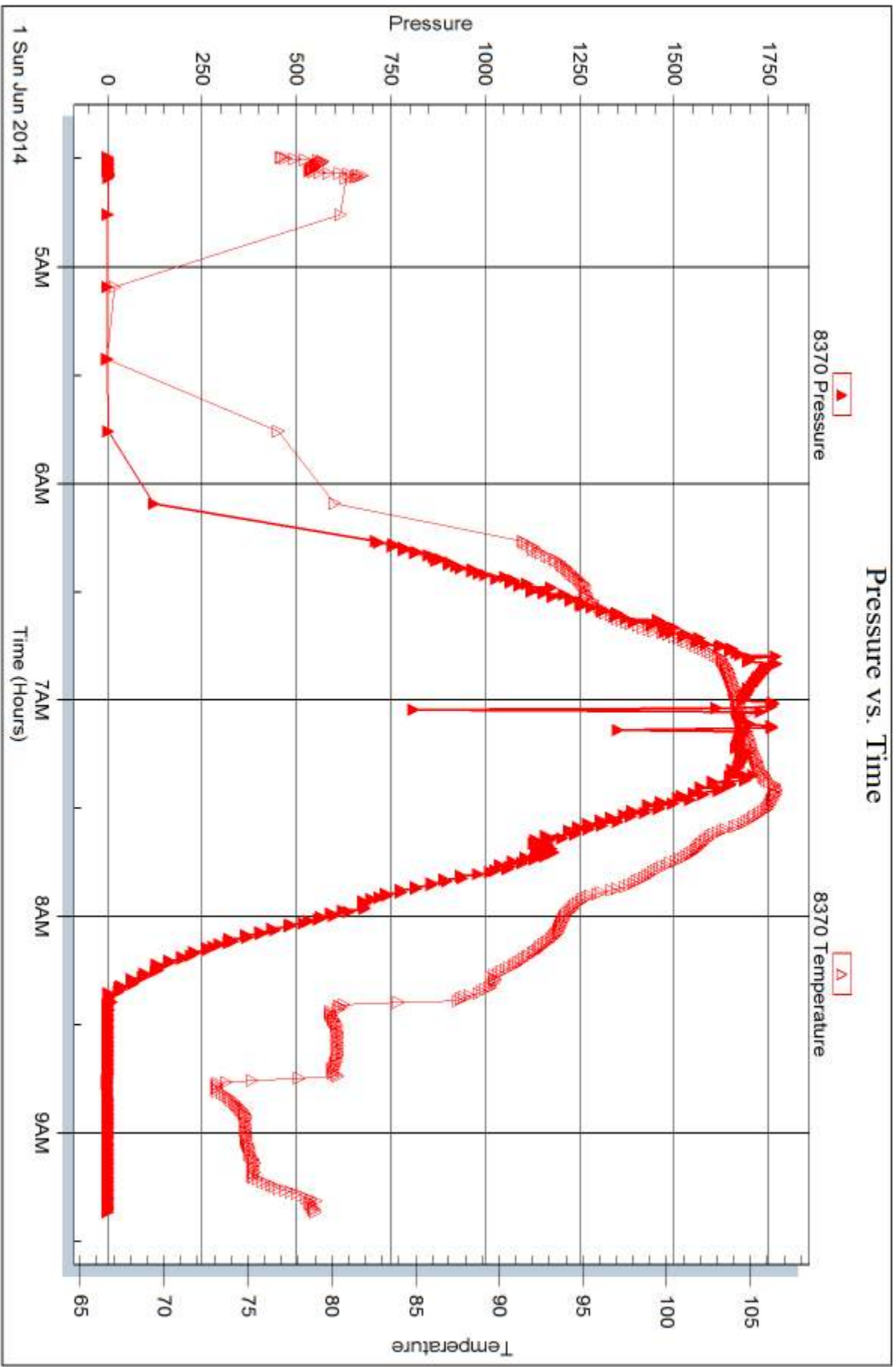
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

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

250 N Water Ste 300  
Wichita, KS 67202

ATTN: Tim Pierce

### **Allen #1-34**

#### **34-22s-12w Stafford,KS**

Start Date: 2014.06.01 @ 09:50:57

End Date: 2014.06.01 @ 18:10:57

Job Ticket #: 54218                      DST #: 3

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

Printed: 2014.06.03 @ 14:37:00



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 54218

**DST#: 3**

ATTN: Tim Pierce

Test Start: 2014.06.01 @ 09:50:57

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:43:57

Time Test Ended: 18:10:57

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3530.00 ft (KB) To 3716.00 ft (KB) (TVD)**

Reference Elevations: 1847.00 ft (KB)

Total Depth: 3716.00 ft (KB) (TVD)

1836.00 ft (CF)

Hole Diameter: 8.75 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

**Serial #: 8352 Outside**

Press@RunDepth: 231.94 psig @ 3531.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.01

End Date:

2014.06.01

Last Calib.:

2014.06.01

Start Time: 09:51:02

End Time:

18:10:56

Time On Btm:

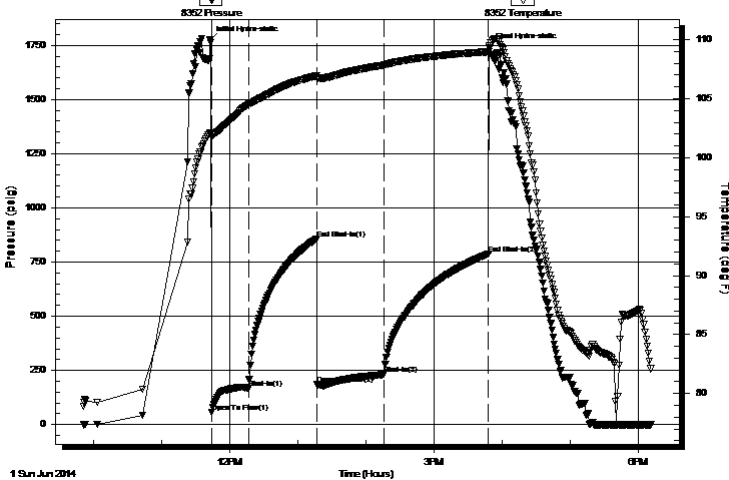
2014.06.01 @ 11:42:27

Time Off Btm:

2014.06.01 @ 15:48:57

**TEST COMMENT:** IF:Strong blow . B.O.B. in 14 mins.  
IS:Weak blow . 3/4 - 1".  
FF:Strong blow . B.O.B. in 13 mins.  
FS:Fair blow . Increase to 11".

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.50	102.03	Initial Hydro-static
2	56.73	101.90	Open To Flow (1)
34	167.97	104.52	Shut-In(1)
94	857.37	106.95	End Shut-In(1)
95	185.27	106.74	Open To Flow (2)
154	231.94	107.85	Shut-In(2)
246	787.86	108.97	End Shut-In(2)
247	1737.86	109.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
240.00	GOCM 32%g 21%o 47%m	1.18
125.00	GOCM 34%g 30%o 36%m	1.75
100.00	CGO 21%g 79%o	1.40
0.00	860 ft. of GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co, Inc.  
250 N Water Ste 300  
Wichita, KS 67202  
ATTN: Tim Pierce

**34-22s-12w Stafford,KS**

**Allen #1-34**

Job Ticket: 54218

**DST#: 3**

Test Start: 2014.06.01 @ 09:50:57

## GENERAL INFORMATION:

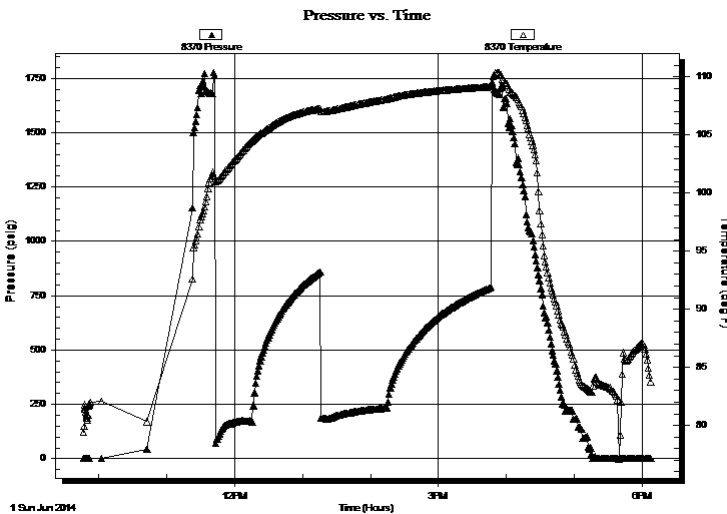
Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:43:57  
 Time Test Ended: 18:10:57  
 Interval: **3530.00 ft (KB) To 3716.00 ft (KB) (TVD)**  
 Total Depth: 3716.00 ft (KB) (TVD)  
 Hole Diameter: 8.75 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Pevoteaux  
 Unit No: 56  
 Reference Elevations: 1847.00 ft (KB)  
 1836.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8370 Inside**

Press@RunDepth: psig @ 3531.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.06.01 End Date: 2014.06.01 Last Calib.: 2014.06.01  
 Start Time: 09:46:30 End Time: 18:07:54 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF:Strong blow . B.O.B. in 14 mins.  
 IS:Weak blow . 3/4 - 1".  
 FF:Strong blow . B.O.B. in 13 mins.  
 FS:Fair blow . Increase to 11".

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
240.00	GOCM 32%g 21%o 47%m	1.18
125.00	GOCM 34%g 30%o 36%m	1.75
100.00	CGO 21%g 79%o	1.40
0.00	860 ft. of GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 54218

**DST#: 3**

ATTN: Tim Pierce

Test Start: 2014.06.01 @ 09:50:57

## Tool Information

Drill Pipe:	Length: 3303.00 ft	Diameter: 3.80 inches	Volume: 46.33 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 47.51 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3530.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	186.00 ft			
Tool Length:	206.00 ft			
Number of Packers:	2	Diameter: 8.00 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3511.00	
Shut In Tool	5.00			3516.00	
Hydraulic tool	5.00			3521.00	
Packer	4.00			3525.00	20.00 Bottom Of Top Packer
Packer	5.00			3530.00	
Stubb	1.00			3531.00	
Recorder	0.00	8352	Outside	3531.00	
Recorder	0.00	8370	Inside	3531.00	
Perforations	13.00			3544.00	
Blank Spacing	158.00			3702.00	
Perforations	9.00			3711.00	
Bullnose	5.00			3716.00	186.00 Bottom Packers & Anchor

**Total Tool Length: 206.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co, Inc.

**34-22s-12w Stafford,KS**

250 N Water Ste 300  
Wichita, KS 67202

**Allen #1-34**

Job Ticket: 54218

**DST#: 3**

ATTN: Tim Pierce

Test Start: 2014.06.01 @ 09:50:57

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29.7 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

19000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 19000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	GOCM 32%g 21%o 47%m	1.180
125.00	GOCM 34%g 30%o 36%m	1.753
100.00	CGO 21%g 79%o	1.403
0.00	860 ft. of GIP	0.000

Total Length: 465.00 ft

Total Volume: 4.336 bbl

Num Fluid Samples: 0

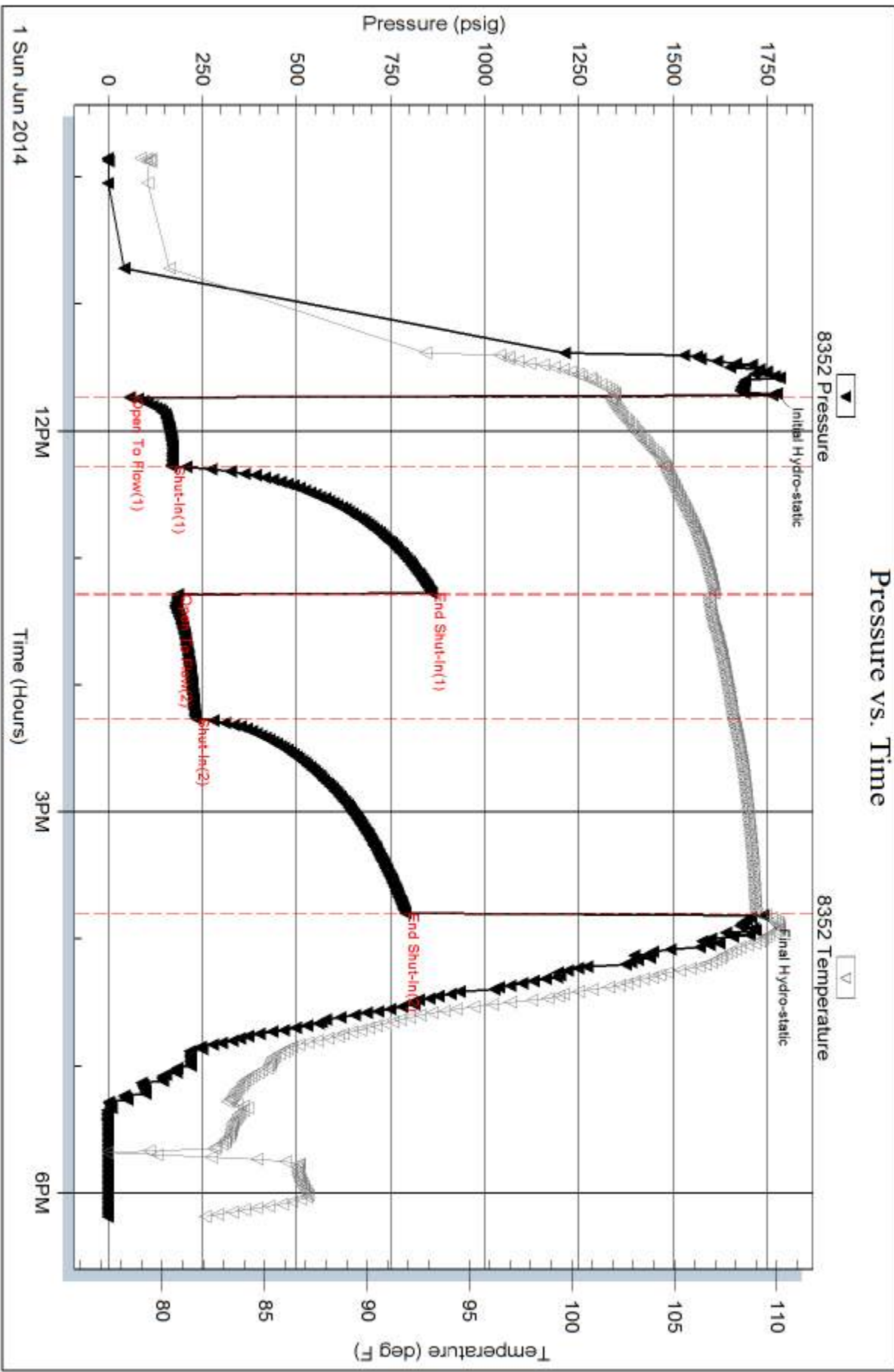
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



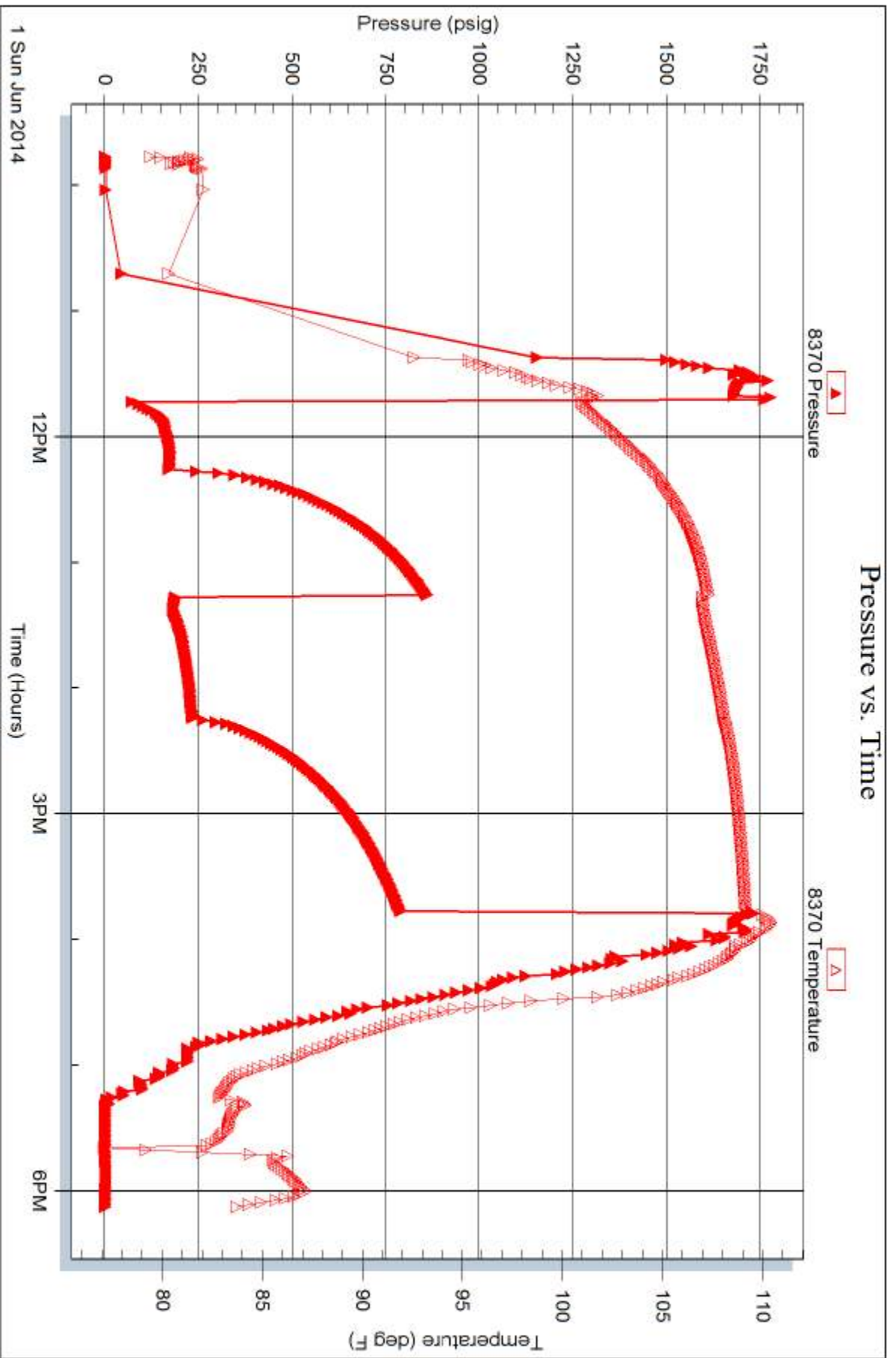
Serial #: 8370

Inside

Murfin Drilling Co, Inc.

Allen #1-34

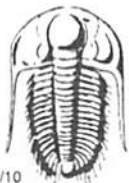
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 54218

Printed: 2014.06.03 @ 14:37:01



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58898

Well Name & No. Allen #1-34 Test No. 1 Date 5-29-14  
 Company Martin Drilling Co Inc Elevation 1847 KB ~~1847~~ 1836  
 Address 250 N Water Stc 300 Wichita, KS 67202  
 Co. Rep / Geo. Tim Pierce Rig Martin 21  
 Location: Sec. 34 Twp. 22s Rge. 12w Co. Stafford State KS

Interval Tested 3323-3395 Zone Tested LKC "B-F"  
 Anchor Length 72' Drill Pipe Run 3076 Mud Wt. 9.6  
 Top Packer Depth 3318 Drill Collars Run 240 Vis 48  
 Bottom Packer Depth 3323 Wt. Pipe Run 0 WL 16  
 Total Depth 3395 Chlorides 12,100 ppm System LCM 1

Blow Description IF- Built to 1 1/4", then surged  
IST- No Return.  
FF- No blow, Flushed @ 01:50, few bubbles then died.  
FSI- No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>70'</u>	<u>M, with oil spots</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	Feet of	%gas	%oil	%water	%mud

Rec Total 70' BHT 109 Gravity — API RW @ °F Chlorides — ppm

(A) Initial Hydrostatic 1655  Test 1150 T-On Location 18:13  
 (B) First Initial Flow 28  Jars \_\_\_\_\_ T-Started 19:40  
 (C) First Final Flow 73  Safety Joint \_\_\_\_\_ T-Open 00:17  
 (D) Initial Shut-In 894  Circ Sub \_\_\_\_\_ T-Pulled 03:17  
 (E) Second Initial Flow 42  Hourly Standby .25h 25 T-Out 04:56  
 (F) Second Final Flow 52  Mileage 176 RT 111.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 973  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1619  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1286.60  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60  
 Sub Total 1286.60

Approved By \_\_\_\_\_ Our Representative Phil Long Thank You

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. 54217

4/10

Well Name & No. ALLEN # 1-34 Test No. 2 Date 6-1-14  
 Company MURFIN DRUG. Co. Inc. Elevation 1847 KB 1836 GL  
 Address 250 N. WATER, STE. 300, WICHITA Ks. 67202  
 Co. Rep / Geo. TIM PIERRE Rig MURFIN DRUG #21  
 Location: Sec. 34 Twp. 22<sup>s</sup> Rge. 12<sup>w</sup> Co. Stafford State Ks.

Interval Tested 3534 - 3716' Zone Tested VIOLA  
 Anchor Length 182' Drill Pipe Run 3303' Mud Wt. 9.1  
 Top Packer Depth 3529' Drill Collars Run 240' Vis 45  
 Bottom Packer Depth 3534' Wt. Pipe Run 0 WL 12.8 cc  
 Total Depth 3716' Chlorides 19,000 ppm System LCM 1/2<sup>#</sup>

Blow Description IF: Strong blow Packers failed. Picked up & re-set tool using more string weight. Packers - failed. MISRUN

Rec	Feet of	%gas	%oil	%water	%mud
<u>400</u>	<u>Drilg. Mud.</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 400 BHT \_\_\_\_\_ Gravity N/A API RW NK @ \_\_\_\_\_ F Chlorides 19,000 ppm

(A) Initial Hydrostatic 1756  Test Misrun 950 T-On Location 0317  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 04  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open 0709  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 0715  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 0925  
 (F) Second Final Flow \_\_\_\_\_  Mileage 72 111.60 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1716  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1311.60  
 Final Flow \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_ Sub Total 1311.60

Approved By \_\_\_\_\_ Our Representative Gay Watney  
 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. 54218

Well Name & No. ALLEN # 1-34 Test No. 3 Date 6-1-14  
 Company MURFIN DRUG CO. INC. Elevation 1847 KB 1836 GL  
 Address 250 N. WATER, STE. 300, WICHITA KS. 67202  
 Co. Rep / Geo. TIM PRITCE Rig MURFIN DRUG #21  
 Location: Sec. 34 Twp. 22S Rge. 12W Co. STAFFORD State KS.

Interval Tested 3530 - 3716' Zone Tested UZOLA  
 Anchor Length 186' Drill Pipe Run 3303 Mud Wt. 9.1  
 Top Packer Depth 3525' Drill Collars Run 240 Vis 45  
 Bottom Packer Depth 3530' Wt. Pipe Run 0 WL 12.8 cc  
 Total Depth 3716' Chlorides 19,000 ppm System LCM 1/2"

Blow Description IF: Strong blow. B.O.B. in 14 mins. IST: Weak below 3/4 - 1"  
FF: Strong blow. B.O.B. in 13 mins. FSI: Fair below. Increase to 11"

Rec	Feet of	%gas	%oil	%water	%mud
<u>100</u>	<u>CGO</u>	<u>21</u>	<u>79</u>		
<u>125</u>	<u>GOCM</u>	<u>34</u>	<u>30</u>	<u>36</u>	
<u>240</u>	<u>GOCM</u>	<u>32</u>	<u>21</u>	<u>47</u>	
	<u>860 FT OF GIP</u>				

Rec Total 465 Fluid BHT 112° Gravity 29.7 API RW NC @ — °F Chlorides 19,000 ppm  
 (A) Initial Hydrostatic 1774  Test 1150 T-On Location N/A  
 (B) First Initial Flow 57  Jars \_\_\_\_\_ T-Started 0950  
 (C) First Final Flow 168  Safety Joint \_\_\_\_\_ T-Open 1143  
 (D) Initial Shut-In 857  Circ Sub \_\_\_\_\_ T-Pulled 1546  
 (E) Second Initial Flow 185  Hourly Standby \_\_\_\_\_ T-Out 1810  
 (F) Second Final Flow 232  Mileage \_\_\_\_\_  
 (G) Final Shut-In 788  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1738  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  
 Final Flow 60  Extra Recorder \_\_\_\_\_  
 Final Shut-In 90  Day Standby 500 Sub Total 0  
 8.75" Hole / Non STANDARD MP/DST Diss't \_\_\_\_\_  
 Sub Total 1650 Hole Total 1761.60

Approved By Tim Pritce Our Representative Gary Swoboda

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.



# Timothy G. Pierce

## Petroleum Geologist

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

COMPANY Murfin Drilling Co., Inc.

LEASE Allen #1-34

FIELD Mikes Meteor

LOCATION 660' FSL & 330' FWL

SEC 34 TWSP 22S RGE 12W

COUNTY Stafford STATE Kansas

CONTRACTOR Murfin Drilling Rig #21

SPUD 5-23-2014 COMP 6-02-2014

RTD 3881 LTD 3886

MUD UP 2490 TYPE MUD Chemical

SAMPLES SAVED FROM 2700 TO RTD

DRILLING TIME KEPT FROM 580-660 TO RTD

SAMPLES EXAMINED FROM 2700 TO RTD

GEOLOGICAL SUPERVISION FROM 2850 TO RTD

GEOLOGIST ON WELL Tim Pierce

#### ELEVATIONS

KB 1847'

DF \_\_\_\_\_

GL 1836'

Measurements Are All From Kelly Bushing

#### CASING

CONDUCTOR \_\_\_\_\_

SURFACE 9-5/8" at 308'

PRODUCTION 5-1/2" at \_\_\_\_\_

#### ELECTRICAL SURVEYS

DIL, CN/D, Sonic, Micro Dipole Sonic - Halliburton

#### FORMATION TOPS

#### ELECTRIC LOG

#### SAMPLE

Anhydrite 620 (+1227) 624 (+1223)

Base/Anhydrite 639 (+1208) 643 (+1204)

Topeka LS 2788 (-941) 2785 (-938)

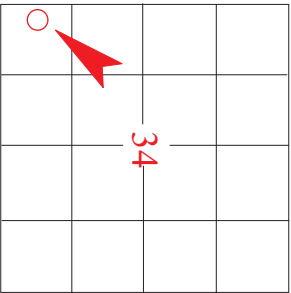
Heebner Sh. 3155 (-1308) 3152 (-1305)

Lansing 3289 (-1442) 3286 (-1439)

Stark Sh. 3504 (-1657) 3505 (-1658)

Viola 3626 (-1779) 3624 (-1777)

Arbuckle 3736 (-1889) 3762 (-1915)



REMARKS Drilled 8-3/4" hole to allow for coring.

The well was cored from 3594' to 3716'. The core barrel was then cut into smaller sections and removed from location. The rock was not examined for rock type, porosity, or oil shows except at the cut ends of each section of the core barrel. Cuttings were examined at 10' intervals during the core process attempting to determine lithology, formation tops, etc

A drill stem test covering the cored interval indicated a probable productive zone in the Viola.

A drill stem test covering the upper KC (B thru F zones) proved non commercial, slight shows in the J and K zones of the KC were not tested. A slight show in the Arbuckle was not tested as well.

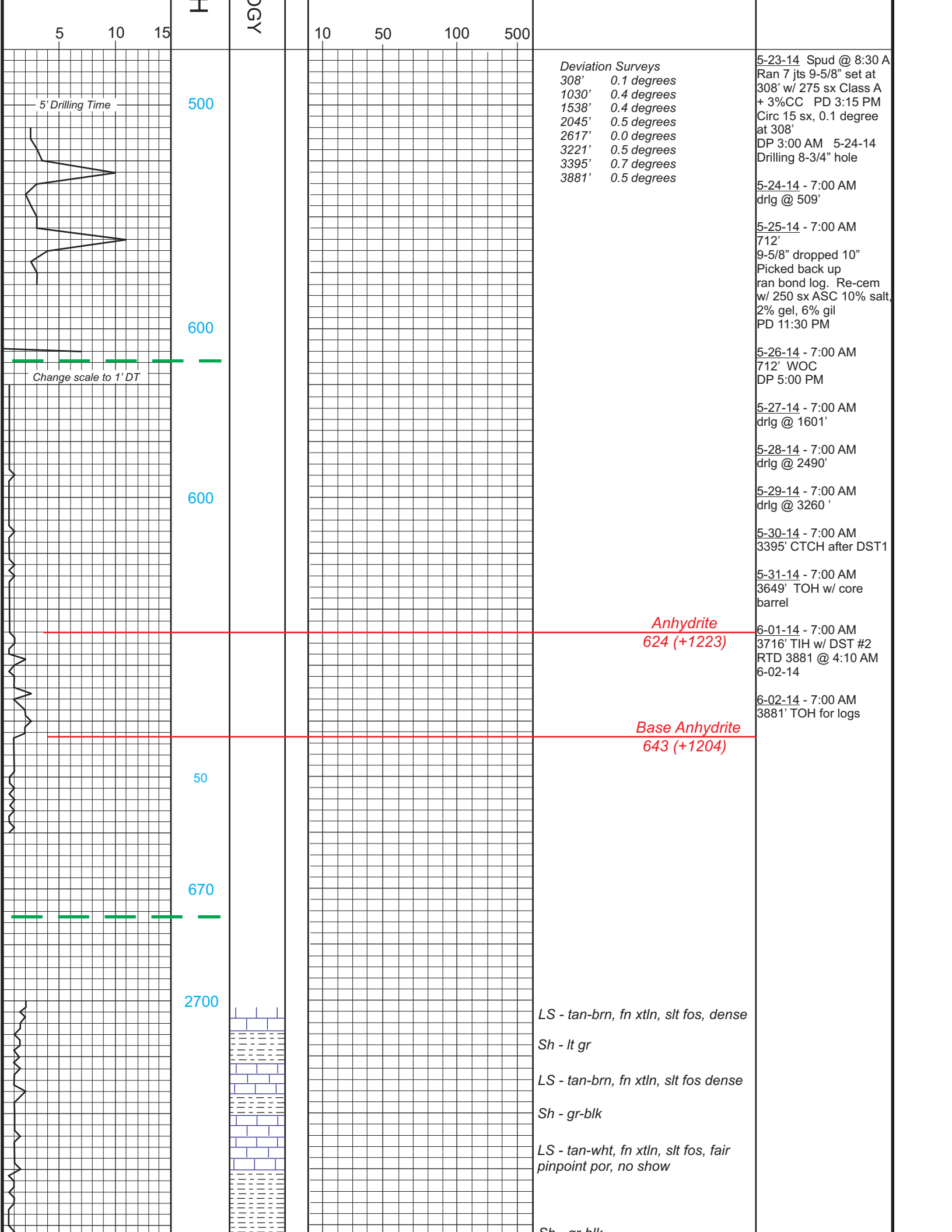
There were no other zones of interest indicated by sample examination or electric logs.

*Timothy G. Pierce*  
Timothy G. Pierce

#### LEGEND

Anhydrite	Sandstone	Limestone	Shale	Carb Sh	Cherty LS	Chert	Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases ↓	DEPTH	LITHOLOG	GAS SCALE	SAMPLE DESCRIPTION	REMARKS
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*Deviation Surveys*

308'	0.1 degrees
1030'	0.4 degrees
1538'	0.4 degrees
2045'	0.5 degrees
2617'	0.0 degrees
3221'	0.5 degrees
3395'	0.7 degrees
3881'	0.5 degrees

5-23-14 Spud @ 8:30 A  
 Ran 7 jts 9-5/8" set at  
 308' w/ 275 sx Class A  
 + 3%CC PD 3:15 PM  
 Circ 15 sx, 0.1 degree  
 at 308'  
 DP 3:00 AM 5-24-14  
 Drilling 8-3/4" hole

5-24-14 - 7:00 AM  
 drlg @ 509'

5-25-14 - 7:00 AM  
 712'  
 9-5/8" dropped 10"  
 Picked back up  
 ran bond log. Re-cem  
 w/ 250 sx ASC 10% salt,  
 2% gel, 6% gil  
 PD 11:30 PM

5-26-14 - 7:00 AM  
 712' WOC  
 DP 5:00 PM

5-27-14 - 7:00 AM  
 drlg @ 1601'

5-28-14 - 7:00 AM  
 drlg @ 2490'

5-29-14 - 7:00 AM  
 drlg @ 3260'

5-30-14 - 7:00 AM  
 3395' CTCH after DST1

5-31-14 - 7:00 AM  
 3649' TOH w/ core  
 barrel

*Anhydrite*  
 624 (+1223)

6-01-14 - 7:00 AM  
 3716' TIH w/ DST #2  
 RTD 3881 @ 4:10 AM  
 6-02-14

*Base Anhydrite*  
 643 (+1204)

6-02-14 - 7:00 AM  
 3881' TOH for logs

LS - tan-brn, fn xtltn, slt fos, dense

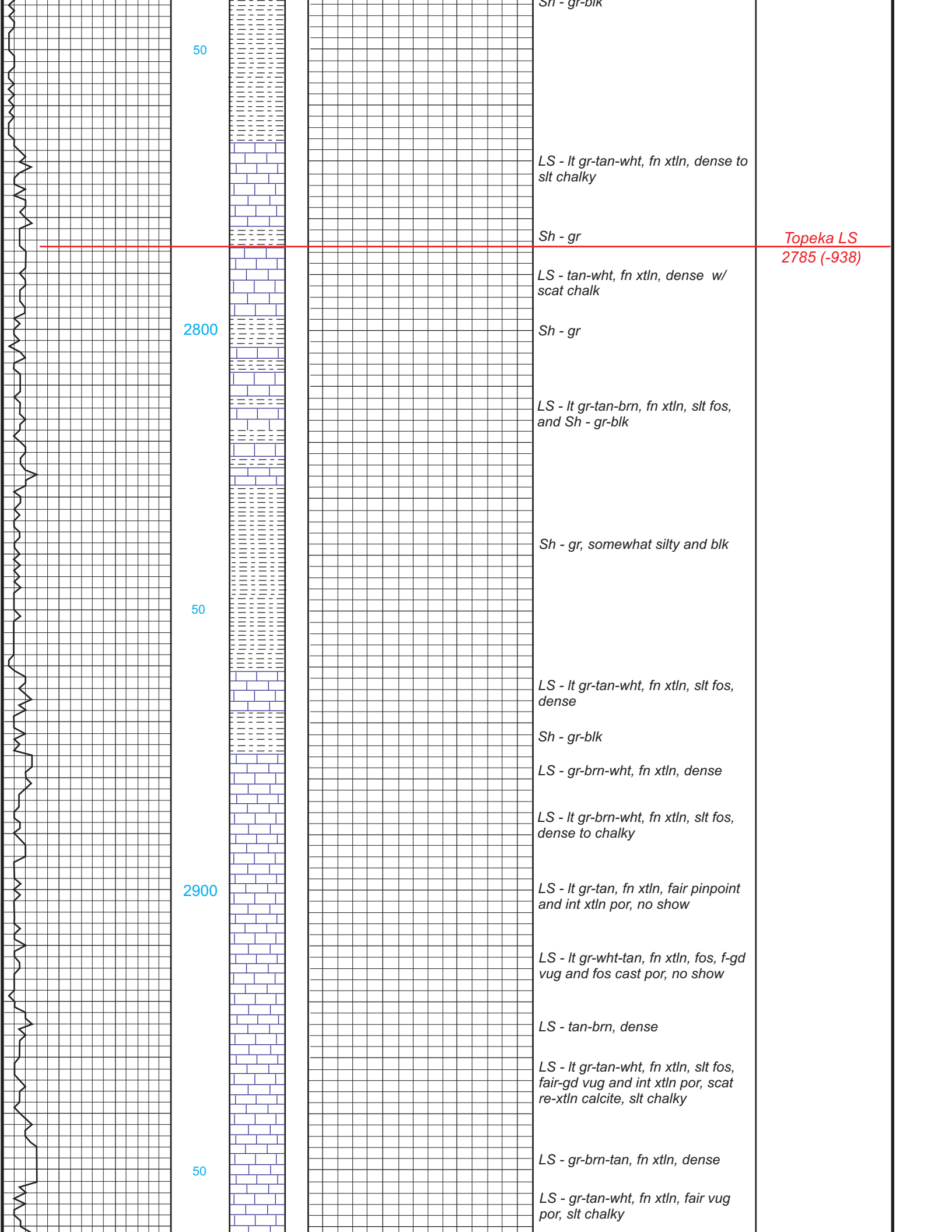
Sh - lt gr

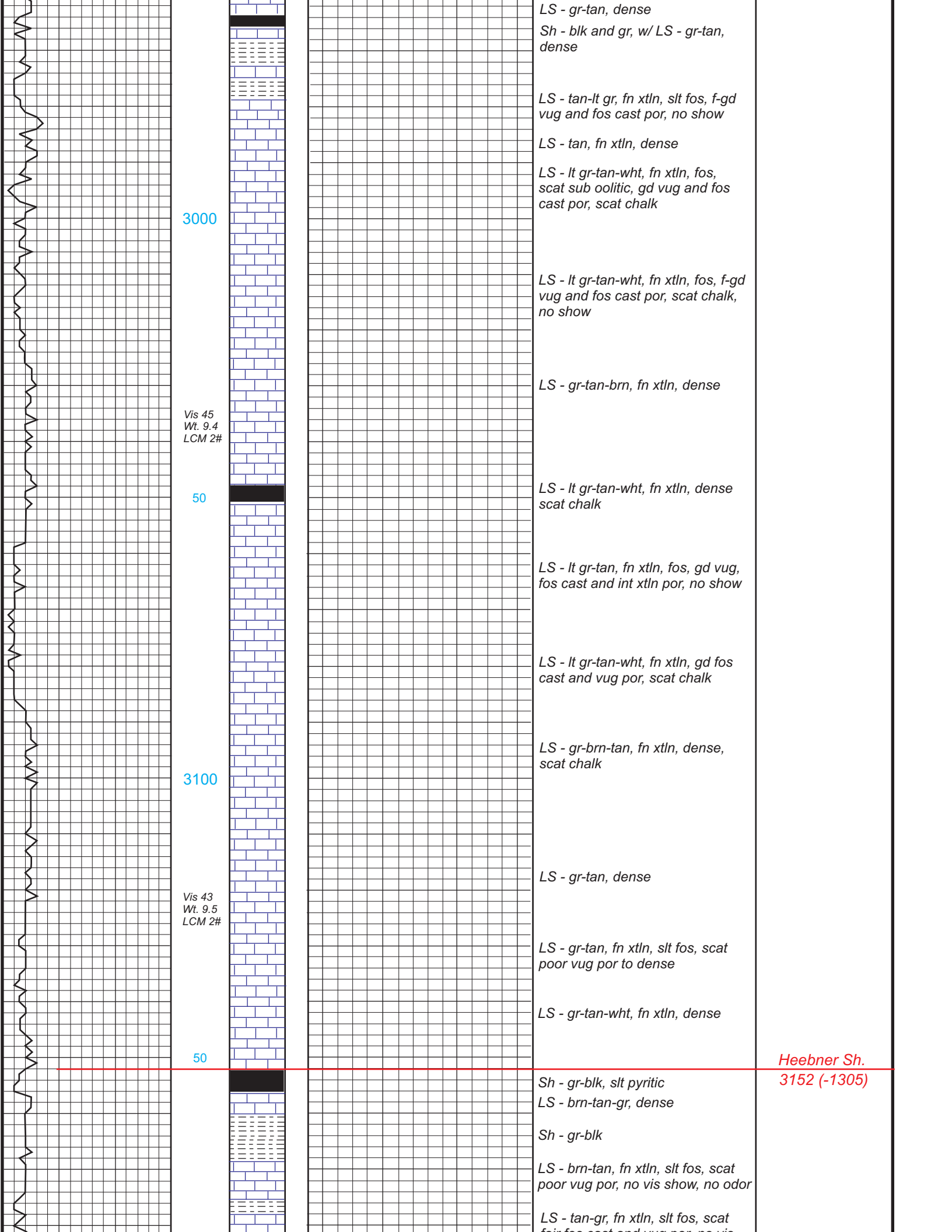
LS - tan-brn, fn xtltn, slt fos dense

Sh - gr-blk

LS - tan-wht, fn xtltn, slt fos, fair  
 pinpoint por, no show

Sh - gr-blk





3000

Vis 45  
Wt. 9.4  
LCM 2#

50

3100

Vis 43  
Wt. 9.5  
LCM 2#

50

LS - gr-tan, dense  
Sh - blk and gr, w/ LS - gr-tan, dense

LS - tan-lt gr, fn xtln, slt fos, f-gd vug and fos cast por, no show

LS - tan, fn xtln, dense

LS - lt gr-tan-wht, fn xtln, fos, scat sub oolitic, gd vug and fos cast por, scat chalk

LS - lt gr-tan-wht, fn xtln, fos, f-gd vug and fos cast por, scat chalk, no show

LS - gr-tan-brn, fn xtln, dense

LS - lt gr-tan-wht, fn xtln, dense scat chalk

LS - lt gr-tan, fn xtln, fos, gd vug, fos cast and int xtln por, no show

LS - lt gr-tan-wht, fn xtln, gd fos cast and vug por, scat chalk

LS - gr-brn-tan, fn xtln, dense, scat chalk

LS - gr-tan, dense

LS - gr-tan, fn xtln, slt fos, scat poor vug por to dense

LS - gr-tan-wht, fn xtln, dense

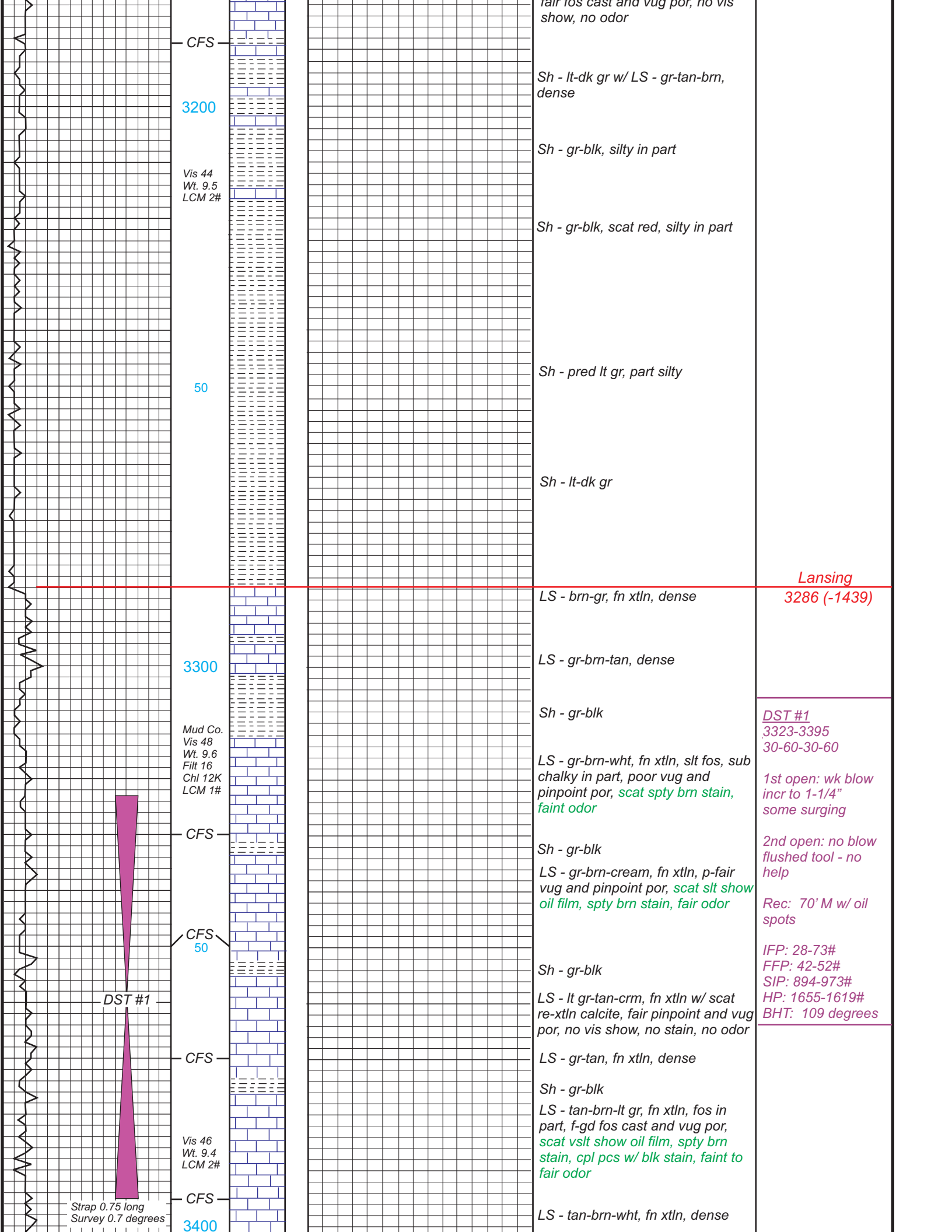
Sh - gr-blk, slt pyritic  
LS - brn-tan-gr, dense

Sh - gr-blk

LS - brn-tan, fn xtln, slt fos, scat poor vug por, no vis show, no odor

LS - tan-gr, fn xtln, slt fos, scat fair fos cast and vug por, no vis

Heebner Sh.  
3152 (-1305)



CFS

3200

Vis 44  
Wt. 9.5  
LCM 2#

50

CFS

CFS  
50

CFS

Vis 46  
Wt. 9.4  
LCM 2#

CFS

3400

fair ros cast and vug por, no vis show, no odor

Sh - lt-dk gr w/ LS - gr-tan-brn, dense

Sh - gr-blk, silty in part

Sh - gr-blk, scat red, silty in part

Sh - pred lt gr, part silty

Sh - lt-dk gr

Lansing

3286 (-1439)

LS - brn-gr, fn xtln, dense

LS - gr-brn-tan, dense

Sh - gr-blk

LS - gr-brn-wht, fn xtln, slt fos, sub chalky in part, poor vug and pinpoint por, scat spty brn stain, faint odor

Sh - gr-blk

LS - gr-brn-cream, fn xtln, p-fair vug and pinpoint por, scat slt show oil film, spty brn stain, fair odor

Sh - gr-blk

LS - lt gr-tan-cream, fn xtln w/ scat re-xtln calcite, fair pinpoint and vug por, no vis show, no stain, no odor

LS - gr-tan, fn xtln, dense

Sh - gr-blk

LS - tan-brn-lt gr, fn xtln, fos in part, f-gd fos cast and vug por, scat vslt show oil film, spty brn stain, cpl pcs w/ blk stain, faint to fair odor

LS - tan-brn-wht, fn xtln, dense

DST #1  
3323-3395  
30-60-30-60

1st open: wk blow  
incr to 1-1/4"  
some surging

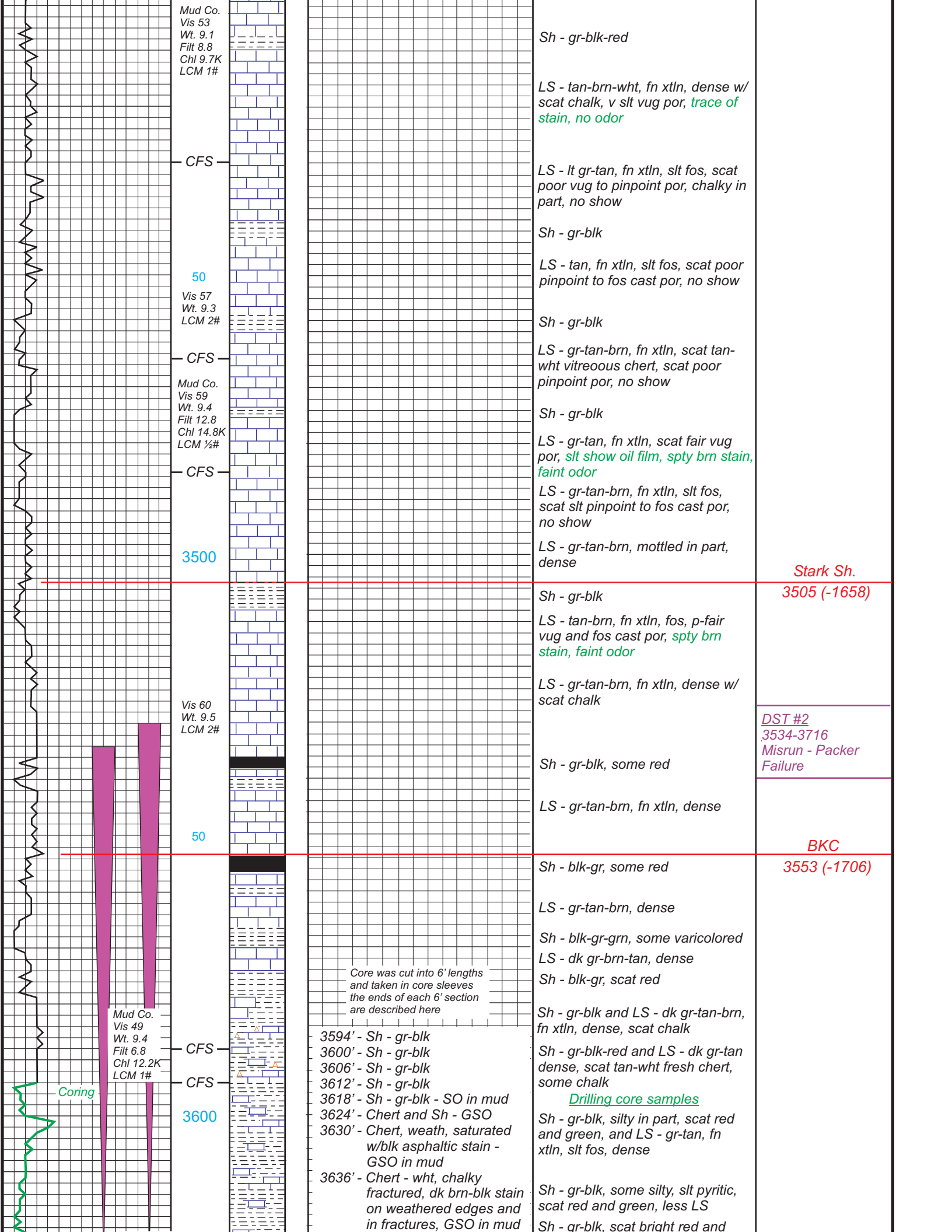
2nd open: no blow  
flushed tool - no help

Rec: 70' M w/ oil spots

IFP: 28-73#  
FFP: 42-52#  
SIP: 894-973#  
HP: 1655-1619#  
BHT: 109 degrees

Strap 0.75 long  
Survey 0.7 degrees

DST #1



Mud Co.  
Vis 53  
Wt. 9.1  
Filt 8.8  
Chl 9.7K  
LCM 1#

CFS

50  
Vis 57  
Wt. 9.3  
LCM 2#

CFS

Mud Co.  
Vis 59  
Wt. 9.4  
Filt 12.8  
Chl 14.8K  
LCM 1/2#

CFS

3500

Vis 60  
Wt. 9.5  
LCM 2#

50

Mud Co.  
Vis 49  
Wt. 9.4  
Filt 6.8  
Chl 12.2K  
LCM 1#

CFS

CFS

3600

Sh - gr-blk-red

LS - tan-brn-wht, fn xtl, dense w/  
scat chalk, v slt vug por, *trace of stain, no odor*

LS - lt gr-tan, fn xtl, slt fos, scat  
poor vug to pinpoint por, chalky in  
part, no show

Sh - gr-blk

LS - tan, fn xtl, slt fos, scat poor  
pinpoint to fos cast por, no show

Sh - gr-blk

LS - gr-tan-brn, fn xtl, scat tan-  
wht vitreous chert, scat poor  
pinpoint por, no show

Sh - gr-blk

LS - gr-tan, fn xtl, scat fair vug  
por, *slt show oil film, spty brn stain, faint odor*

LS - gr-tan-brn, fn xtl, slt fos,  
scat slt pinpoint to fos cast por,  
no show

LS - gr-tan-brn, mottled in part,  
dense

**Stark Sh.**  
3505 (-1658)

Sh - gr-blk

LS - tan-brn, fn xtl, fos, p-fair  
vug and fos cast por, *spty brn stain, faint odor*

LS - gr-tan-brn, fn xtl, dense w/  
scat chalk

**DST #2**  
3534-3716  
Misrun - Packer  
Failure

Sh - gr-blk, some red

LS - gr-tan-brn, fn xtl, dense

**BKC**  
3553 (-1706)

Sh - blk-gr, some red

LS - gr-tan-brn, dense

Sh - blk-gr-grn, some varicolored

LS - dk gr-brn-tan, dense

Sh - blk-gr, scat red

Sh - gr-blk and LS - dk gr-tan-brn,  
fn xtl, dense, scat chalk

Sh - gr-blk-red and LS - dk gr-tan  
dense, scat tan-wht fresh chert,  
some chalk

*Drilling core samples*

Sh - gr-blk, silty in part, scat red  
and green, and LS - gr-tan, fn  
xtln, slt fos, dense

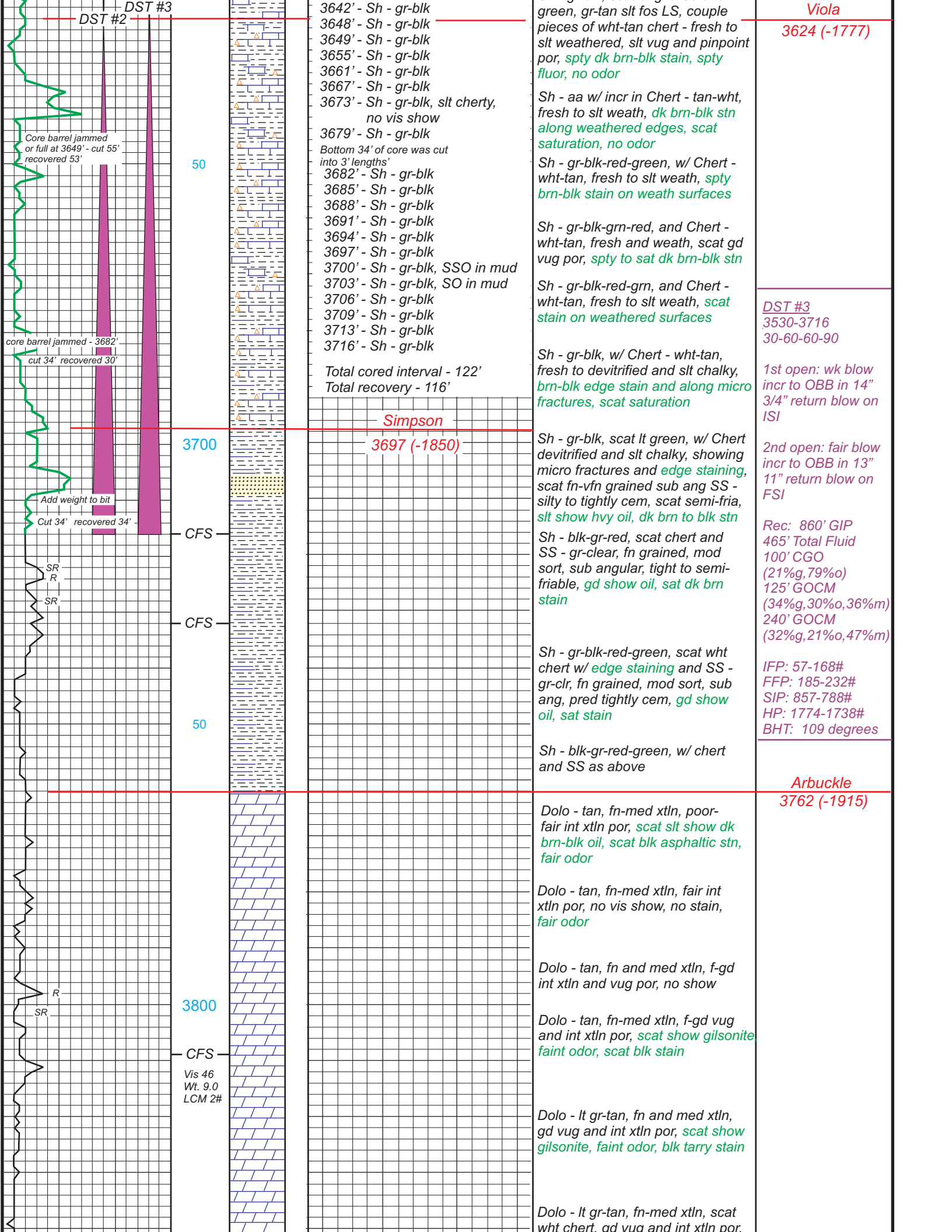
Sh - gr-blk, some silty, slt pyritic,  
scat red and green, less LS

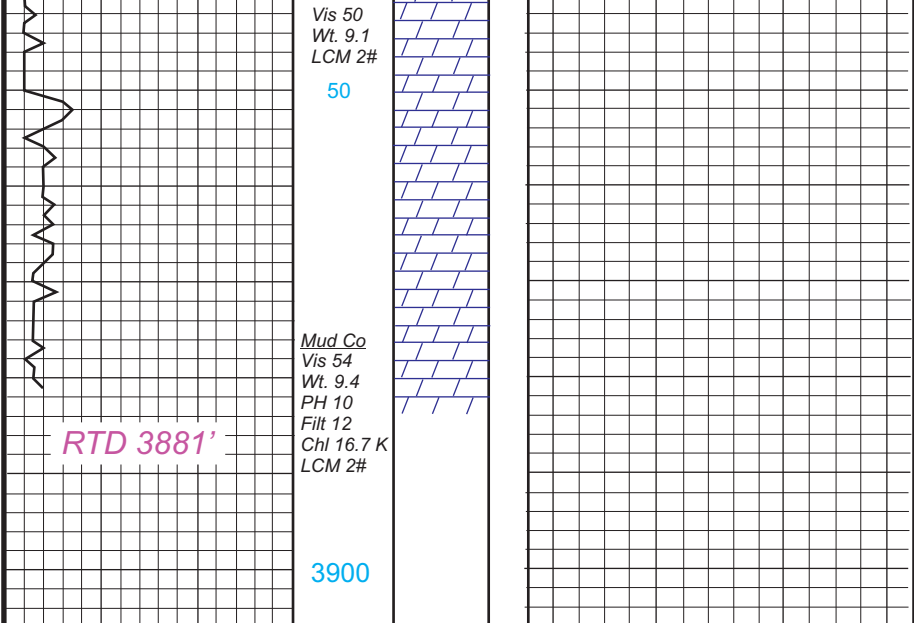
Sh - gr-blk, scat bright red and

Core was cut into 6' lengths  
and taken in core sleeves  
the ends of each 6' section  
are described here

- 3594' - Sh - gr-blk
- 3600' - Sh - gr-blk
- 3606' - Sh - gr-blk
- 3612' - Sh - gr-blk
- 3618' - Sh - gr-blk - SO in mud
- 3624' - Chert and Sh - GSO
- 3630' - Chert, weath, saturated  
w/blk asphaltic stain -  
GSO in mud
- 3636' - Chert - wht, chalky  
fractured, dk brn-blk stain  
on weathered edges and  
in fractures, GSO in mud

Coring

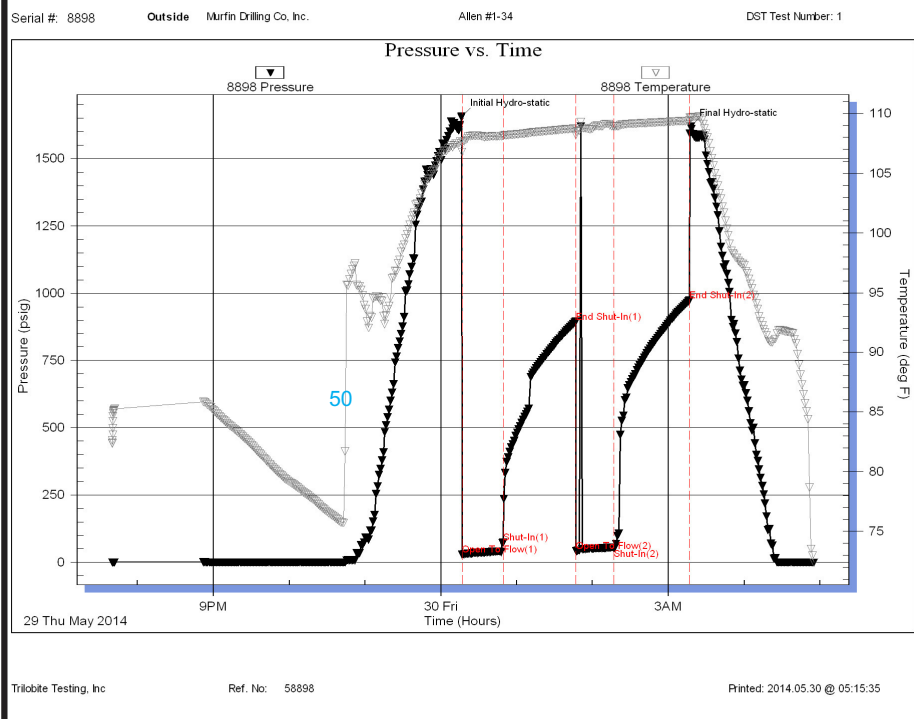




tan-brn-it gr, fn and med xtlh, scat v slt show gilsonite, blk stain

Dolo - tan-lt gr, fn and med xtlh, scat wht chert, dense to fair int xtlh and vug por

Dolo - tan-brn-lt gr, fn and med xtlh, scat gr-wht chert, dense to gd vug and int xtlh por



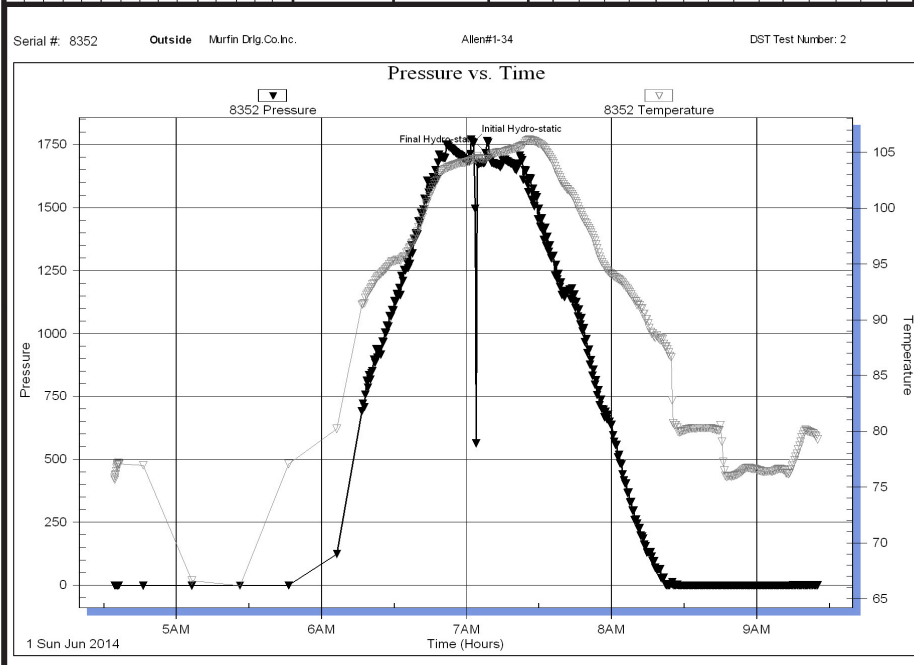
DST #1  
3323-3395  
30-60-30-60

1st open: wk blow  
incr to 1-1/4"  
some surging

2nd open: no blow  
flushed tool - no  
help

Rec: 70' M w/ oil  
spots

IFP: 28-73#  
FFP: 42-52#  
SIP: 894-973#  
HP: 1655-1619#  
BHT: 109 degrees

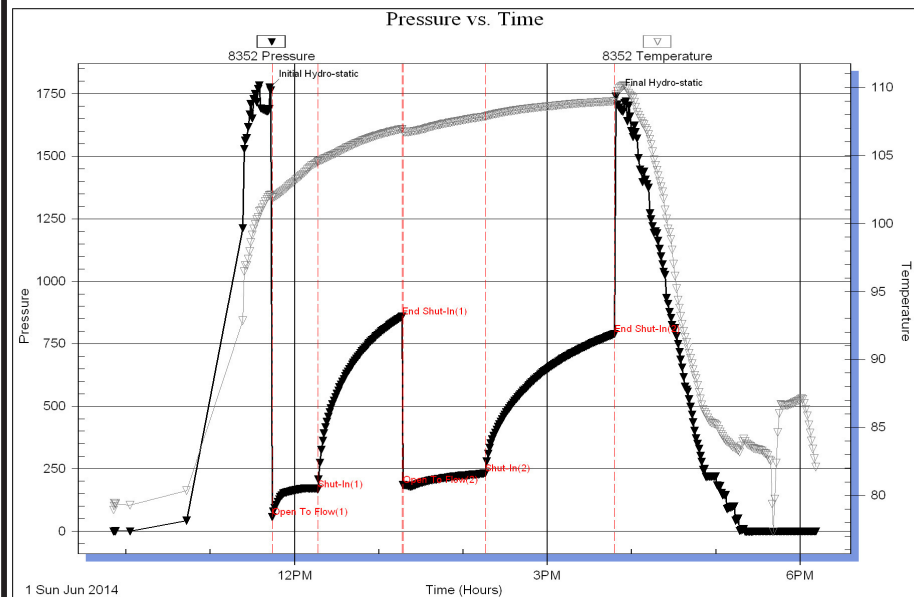


DST #2  
3534-3716  
Misrun - Packer  
Failure



Serial #: 8352    Outside    Murfin Drlg Co, Inc.    Allen#1-34    DST Test Number: 3

Pressure vs. Time



DST #3  
3530-3716  
30-60-60-90

1st open: wk blow  
incr to OBB in 14"  
3/4" return blow on  
ISI

2nd open: fair blow  
incr to OBB in 13"  
11" return blow on  
FSI

Rec: 860' GIP  
465' Total Fluid  
100' CGO  
(21%g, 79%o)  
125' GOCM  
(34%g, 30%o, 36%m)  
240' GOCM  
(32%g, 21%o, 47%m)

IFP: 57-168#  
FFP: 185-232#  
SIP: 857-788#  
HP: 1774-1738#  
BHT: 109 degrees

