



KANSAS CORPORATION COMMISSION 1046025  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009

Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # 3882  
Name: Samuel Gary Jr. & Associates, Inc.  
Address 1: 1515 WYNKOOP, STE 700  
Address 2: \_\_\_\_\_  
City: DENVER State: CO Zip: 80202 + \_\_\_\_\_  
Contact Person: TOM FERTAL  
Phone: ( 303 ) 831-4673  
CONTRACTOR: License # 5822  
Name: Val Energy, Inc.  
Wellsite Geologist: TIM HEDRICK  
Purchaser: GARY WILLIAMS ENERGY CORPORATION

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  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_  
06/23/2010    07/01/2010    07/21/2010  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 15-009-25435-00-00  
Spot Description: \_\_\_\_\_  
SW SE SE SE Sec. 18 Twp. 17 S. R. 15  East  West  
250 Feet from  North /  South Line of Section  
360 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Barton  
Lease Name: STOS ET AL Well #: 1-18  
Field Name: \_\_\_\_\_  
Producing Formation: ARBUCKLE  
Elevation: Ground: 2003 Kelly Bushing: 2013  
Total Depth: 3677 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 1092 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: 4400 ppm Fluid volume: 1000 bbls  
Dewatering method used: Hauled to Disposal  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: SAMUEL GARY JR AND ASSOCIATES  
Lease Name: MATTHAEI TRUST License #: 3882  
Quarter SW Sec. 19 Twp. 18 S. R. 9  East  West  
County: RICE Permit #: 15165218810000

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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**  
 Letter of Confidentiality Received  
Date: 10/25/2010  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Garrison Date: 10/26/2010



1046025

Operator Name: Samuel Gary Jr. & Associates, Inc. Lease Name: STOS ET AL Well #: 1-18
Sec. 18 Twp. 17 S. R. 15 East West County: Barton

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sheets) Samples Sent to Geological Survey Cores Taken Electric Log Run Electric Log Submitted Electronically (If no, Submit Copy) List All E. Logs Run: Attached
Log Formation (Top), Depth and Datum Sample
Name Top Datum
TOPEKA 3013 -1000
HEEBNER 3243 -1230
DOUGLAS 3274 -1261
LANSING 3304 -1291
ARBUCKLE 3552 -1539
TD 3677

CASING RECORD New Used
Report all strings set-conductor, surface, intermediate, production, etc.
Table with columns: 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
Table with columns: Purpose, Depth Top Bottom, Type of Cement, # Sacks Used, Type and Percent Additives

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

TUBING RECORD: Size: 2.875 Set At: 3619 Packer At: Liner Run: Yes No
Date of First, Resumed Production, SWD or ENHR. 07/21/2010
Producing Method: Flowing Pumping Gas Lift Other (Explain)
Estimated Production Per 24 Hours: Oil 15 Bbls. Gas Mcf Water 10 Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: Vented Sold Used on Lease (If vented, Submit ACO-18.)
METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled (Submit ACO-5) Other (Specify)
PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	STOS ET AL 1-18
Doc ID	1046025

All Electric Logs Run

ARRAY INDUCTION SHALLOW FOCUSSED ELECTRIC LOG
COMPACT PHOTO DENSITY COMPENSATED NEUTRON LOG
MICRO RESISTIVITY LOG
COMPENSATED SONIC W/ INTEGRATED TRANSIT TIMES LOG



*Mark Parkinson, Governor  
Thomas E. Wright, Chairman  
Joseph F. Harkins, Commissioner  
Ward Loyd, Commissioner*

October 25, 2010

TOM FERTAL  
Samuel Gary Jr. & Associates, Inc.  
1515 WYNKOOP, STE 700  
DENVER, CO 80202

Re: ACO1  
API 15-009-25435-00-00  
STOS ET AL 1-18  
SE/4 Sec.18-17S-15W  
Barton 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,  
TOM FERTAL



*Mark Parkinson, Governor  
Thomas E. Wright, Chairman  
Joseph F. Harkins, Commissioner  
Ward Loyd, Commissioner*

October 26, 2010

TOM FERTAL  
Samuel Gary Jr. & Associates, Inc.  
1515 WYNKOOP, STE 700  
DENVER, CO 80202

Re: ACO-1  
API 15-009-25435-00-00  
STOS ET AL 1-18  
SE/4 Sec.18-17S-15W  
Barton County, Kansas

Dear TOM FERTAL:

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

The above referenced well was spudded on 06/23/2010 and the ACO-1 was received on October 25, 2010 (not within the 120 days timely requirement).

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

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

Sincerely,

Production Department



**QUALITY OILWELL CEMENTING, INC.**

740 West Wichita Ave, Russell KS 67665  
Phone: 785-324-1041 fax: 785-483-1087  
Email: cementing@ruraltel.net  
Pratt Location 620-388-5422

Date: 6/28/2010  
Invoice # **4050**  
P.O.#:  
Due Date: 7/28/2010  
Division: *Russell*

# Invoice

**Contact:**

Samuel Gary Jr & Associates Inc  
**Address/Job Location:**  
Samuel Gary Jr & Associates Inc  
P.O. BOX 448  
RUSSELL KS 67665

**Reference:**

STOS ET. AL 1-18

**Description of Work:**

LONG SURFACE JIB

**Services / Items Included:**

	<i>Item</i>	<i>Quantity</i>		<i>Item</i>	<i>Quantity</i>
	Surface Job	1			
Pump Truck Mileage-from Job location to Nearest Camp		22		8 5/8" Centralizer	3
Premium Gel (Bentonite)		8		8 5/8" Basket	3
Flo Seal		100		8 5/8" AFU Insert	1
Common-Class A		400			
Calcium Chloride		14			
Bulk Truck Mileage-from Job location to Nearest Bulk Plant		22			
Bulk Truck Material-Material Service Charge		422			
8 5/8" Top Rubber Plug		1			

Quoted by: Dave Funk

**Invoice Terms:**

Net 30

SubTotal: \$ 8,628.26

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,294.24)

Total: \$ 7,334.02

Tax: \$ 236.85

**\$ 7,570.87**

**Applied Payments:**

**Balance Due: \$ 7,570.87**

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
This does not include any applicable taxes unless it is listed.  
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RECEIVED

JUN 30 2010

SAMUEL GARY JR.  
& ASSOCIATES, INC.

DRLG  COMP  W/O  LOE

AFE # \_\_\_\_\_

ACCT # 2000-138

APPROVED BY [Signature]

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 4050

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-24-10	18	17	15	Barton	Kansas		8:00pm
Lease	Stos Et AL		Well No.	Location			
			1-18	Otis 2E 2N			
Contractor	VAL Drilling Rig 6			Owner			
Type Job	Long Surface			To Quality Oilwell Cementing, Inc.			
Hole Size	12 1/4		T.D.	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Csg.	8 3/8 236		Depth	Charge To			
Tbg. Size			Depth	Samuel Gray Jr. & Assoc.			
Tool			Depth	Street			
Cement Left in Csg.	22 1/2		Shoe Joint	City			
Meas Line			Displace	State			
			68861	The above was done to satisfaction and supervision of owner agent or contractor.			
<b>EQUIPMENT</b>			Cement Amount Ordered				
Pumptrk	No.	Cementer	400 Com 300 2 1/2" 1/4 Flowseal per sil				
5		Helper	Common 400				
Bulktrk	No.	Driver	Poz. Mix				
12		Driver	Gel. 8				
Bulktrk	No.	Driver	Calcium 14				
		Driver	Hulls				
<b>JOB SERVICES &amp; REMARKS</b>			Salt				
Remarks:							Flowseal 100
Rat Hole							Kol-Seal
Mouse Hole							Mud CLR 48
Centralizers							CFL-117 or CD110 CAF 38
Baskets							Sand
D/V or Port Collar							Handling 422
<p style="font-size: 2em; font-family: cursive;">Cement did Circulate</p> <p style="font-size: 3em; font-family: cursive; transform: rotate(-15deg);">Thank You</p> <p style="font-size: 2em; font-family: cursive; transform: rotate(-15deg);">Randy Martin</p>			<b>FLOAT EQUIPMENT</b>				
			Guide Shoe				
			Centralizer 3				
			Baskets 3				
			AFU Inserts				
			Float Shoe				
			Latch Down				
			1 8 3/8 Rubber Plug				
			1 8 3/8 Battle Plug				
			Pumptrk Charge Long Surface				
Mileage 22							
Tax							
Discount							
Total Charge							
X Signature							



PAGE 1 of 1	CUST NO 1003682	INVOICE DATE 07/08/2010
INVOICE NUMBER <b>1718 - 90355574</b>		

Pratt (620) 672-1201  
 B SAMUEL GARY JR. & ASSOCIATES  
 I PO Box: 448  
 L RUSSELL  
 L KS US 67665  
 T  
 O ATTN:

J LEASE NAME Stos 1-18  
 O LOCATION  
 B COUNTY Barton  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40203283	20920		Net - 30 days	08/07/2010

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<b>For Service Dates: 07/02/2010 to 07/02/2010</b>				
0040203283				
171801986A Cement-New Well Casing/Pi 07/02/2010 5 1/2" Longstring				
60/40 POZ	75.00	EA	7.56	566.96 T
50/50 POZ	125.00	EA	6.93	866.20 T
Cello-flake	31.00	EA	2.33	72.26 T
Calcium Chloride	210.00	EA	0.66	138.91 T
Cal-Set	625.00	EA	0.47	295.29 T
FLA-322	104.00	EA	4.72	491.37 T
Cement Gel	210.00	EA	0.16	33.07 T
Gilsonite	1,000.00	EA	0.42	422.07 T
Latch Down Plug & Baffle 5 1/2" (Blue)	1.00	EA	251.98	251.98
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	226.79	226.79
Turbolizer 5 1/2" (Blue)	8.00	EA	69.30	554.37
CS-1L KCL Substitute	4.00	EA	22.05	88.19 T
Super Flush II	500.00	EA	0.96	481.92 T
Unit Mileage Charge-Pickups, Vans & Cars	85.00	HR	2.68	227.57
Heavy Equipment Mileage	170.00	MI	4.41	749.65
Proppant and Bulk Delivery Charges	723.00	MI	1.01	728.74
Depth Charge; 3001-4000	1.00	HR	1,360.73	1,360.73
Blending & Mixing Service Charge	200.00	MI	0.88	176.39
Casing Swivel Rental	1.00	EA	125.99	125.99
Plug Container Utilization Charge	1.00	EA	157.49	157.49
Service Supervisor	1.00	HR	110.24	110.24

DRLG  COMP  W/C  LOE  
 AFE # \_\_\_\_\_  
 ACCT # 7200-135  
 APPROVED BY [Signature]  
 JUL 16 2010

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	8,126.18
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	217.74
PO BOX 841903	PO BOX 10460	INVOICE TOTAL	8,343.92
DALLAS, TX 75284-1903	MIDLAND, TX 79702		





**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 1986 A

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

DATE OF JOB 7-2-10		DISTRICT KANSAS		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 Samuel Gary IR + ASSC INC				LEASE STOS 1-B		WELL NO.			
ADDRESS				COUNTY Barton 18-17-15 STATE KANS.					
CITY				STATE		SERVICE CREW A. Werth, Kleslog, M. McGrand			
AUTHORIZED BY				JOB TYPE: 5/8" L.S.					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	TIME	
28443 P.U.	1					7-1-10	7-1-10	8:00	
33706-20920	1						7-2-10	1:00	
19226-19260	1						7-2-10	2:30	
							7-2-10	8:30	
							7-2-10	9:30	
						MILES FROM STATION TO WELL 85 miles			

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: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	60/40 P02		75 SK		\$ 900.00
CP104	50/50 P02		125 SK		\$ 1325.00
CC102	CELL FLAKE		31-1b		\$ 114.70
CC109	CALCIUM CHLORIDE		210-1b		\$ 220.50
CC113	CAL SET		625-1b		\$ 468.75
CC129	FIA-322		104-1b		\$ 780.00
CC200	CEMENT GEL		810-1b		\$ 52.50
CC201	GILSONITE		1000-1b		\$ 620.00
CF607	Latch down Plug + Baffle 5/2" Blue	1-en			\$ 400.00
CF1251	Auto Fill Float Shoe 5/2" Blue	1-en			\$ 360.00
CF1651	Turbolizer 5/2" Blue	2-en			\$ 880.00
CF04	CS-16 KCL substitute	4-gal			\$ 140.00
CC166	Super flush #2	500-gal			\$ 705.00
					DL5

SUB TOTAL

CHEMICAL / ACID DATA		

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE Allen F. Werth THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [Signature]  
FIELD SERVICE ORDER NO. (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)



# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer Samuel Gary, JR + ASSOC	Lease No.	Date 7-2-10
Lease Stos	Well # 1-18	
Field Order # 171819861	Station Pratt	Casing 5 1/2"
Type Job 5 1/2" I.S.	Formation CNUW	Depth 3677.51
	Legal Description RTD 36X0, LT03677	County Barton
		State KS

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2"	Tubing Size	Shots/Ft	20 BBLs	Acid 2% KCL	Pre Pad	RATE	PRESS	ISIP
Depth 3677.51	Depth	From	To 255k	Super flush	Max			5 Min.
Volume 27 BBL	Volume	From	To 125 sks	60/40 Poz	Min			10 Min.
Max Press 1500 #	Max Press	From	To Plug	50/50 Poz	Avg			15 Min.
Well Connection P.C.	Annulus Vol.	From	To Plug	RH w/ 30 sks	HHP Used			Annulus Pressure
Plug Depth 3654'	Packer Depth	From	To	MH w/ 20 sks	Gas Volume			Total Load

Customer Representative Kelly Branum	Station Manager Scotty	Treater Allen Flewirth
Service Units 28443	33708	20900
Driver Names Wright	Kearney	Lesley
	Mike	McGraw

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
100 AM					on loc. Discuss Safety, Setup, Plan. Tab
					Rig Laying down Drill Pipe.
322					out of Hole Rig up to Run 5 1/2" casing
					15.5" pipe.
435					Start 5 1/2" casing shoe joint 23.00'
					w/ float shoe & L.D. Baffle in collar
					cont 1-3-5-7-9-11-13-15
630					Trg TD @ 3677' pickup approx 1'
730	200 #		20	5	Hookup & circ & Rotate w/ Rig.
			12	5	Pump 20 BBL 2% KCL
			5	5	Pump 12 BBLs mud flush
			5	5	Pump 5 BBL H <sub>2</sub> O spacer
			9	5	Mix & pump 25 sks 60/40 Poz spacer
			5	5	Mix & Pump 125 sks 50/50 Poz @ 13.8 #/in
			34		Finish mix - wash out Pump & Line
				6	Drop L.D. Plug + Start Disp
	400 #			5	caught 1. ft + PSI 64 BBLs out
815	1500 #			7 1/2	Plug down
	0 #				Release PSI - OK
					Plug RH w/ 30 sks + MH w/ 20 sks 60/40
					washup & Rackup equip.
930					Tab complete - Thanks Allen, Kearney, McGraw



Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: STOS ET AL 1-18  
Location: SEC 18-17S-15W , Barton co. Kansas  
License Number: 15-009-25435-0000  
Spud Date: 06/23/2010  
Surface Coordinates: 250' FSL, 360' FEL  
Region: Wildcat  
Drilling Completed: 07/01/2010

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 2003" K.B. Elevation (ft): 2013'  
Logged Interval (ft): 1744' To: 3680' Total Depth (ft): 3680'  
Formation: Lansing, Arbuckle  
Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

#### OPERATOR

Company: Samuel Gary Jr, & Assoc.  
Address: 1515 Wykoop, Ste. # 700  
Denver, Colo. 80202  
Geo: Tom Fertal

#### GEOLOGIST

Name: Rodney Napier  
Company: Earth Tech OGL, Inc.  
Address: PO Box 683  
Hooker, Okla . 73945  
Off. 888-543-8378 Cell: 620-655-8252

#### Circulating Report

START UN MANNED LOGGING UNIT 06/25/2010  
START 24 HR MANNED UNIT 6/27/2010  
CFS /CTCH3316' 20,40,60 TOTAL 1.5 HRS  
TOH FOR STRAP ON PIPE AND COLLARS

DST's Report


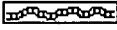










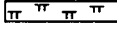

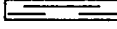
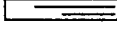
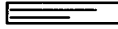



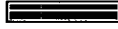

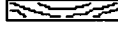




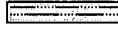


DST#1 3312'-3334' 22' ANCHOR  
IFP WEAK BLOW BUILT TO 1 3/4"  
ISI DEAD NO BLOW BACK  
FFP WEAK BLOW BUILT TO 1 1/4"  
FSI NO BLOW BACK  
RECOVERY: 25' MUDDY WATER WITH OIL SPECKS BHT 111 CLORIDES 1900  
IH:1610  
FIF:16  
FFF:24  
ISI: 1118  
SIF: 26  
SFF: 39  
FSI:1106  
FH: 1474  
TIMES: 15,60,60,180

DST#2 3398'-3410'  
ANCHOR 12'  
IFP BLOW BUILT TO 3/4 IN  
ISI DEAD NO BLOW BACK  
FFP DEAD NO BLOW BACK  
FSI DEAD NO BLOW BACK  
RECOVERY: 10' MW WITH OIL SPECKS  
BHT 110 DEG  
IH:1647  
FIF:13  
FFF:15  
ISI:1129  
SIF:16  
SFF:18  
FSI:1112  
FH:1511  
TIMES 15,60,22,75

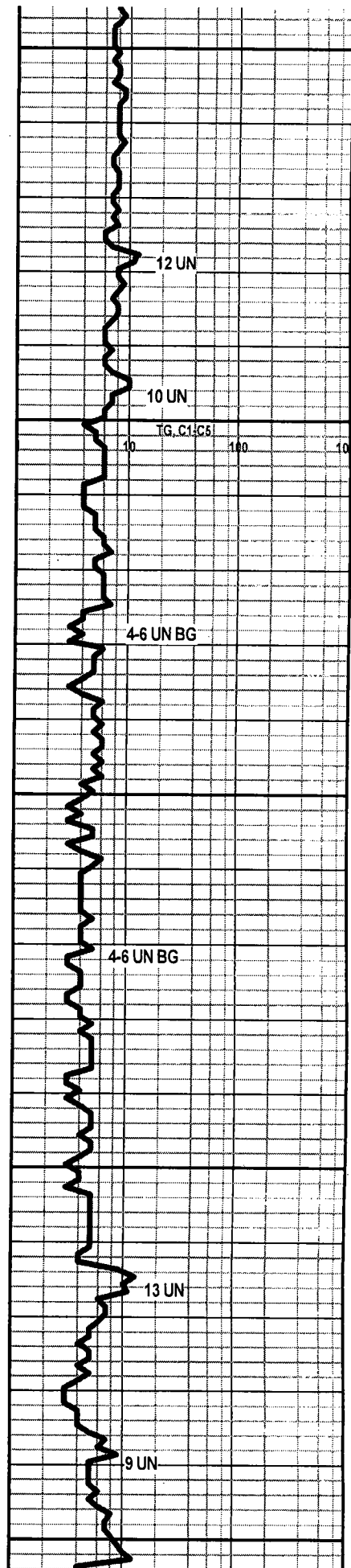
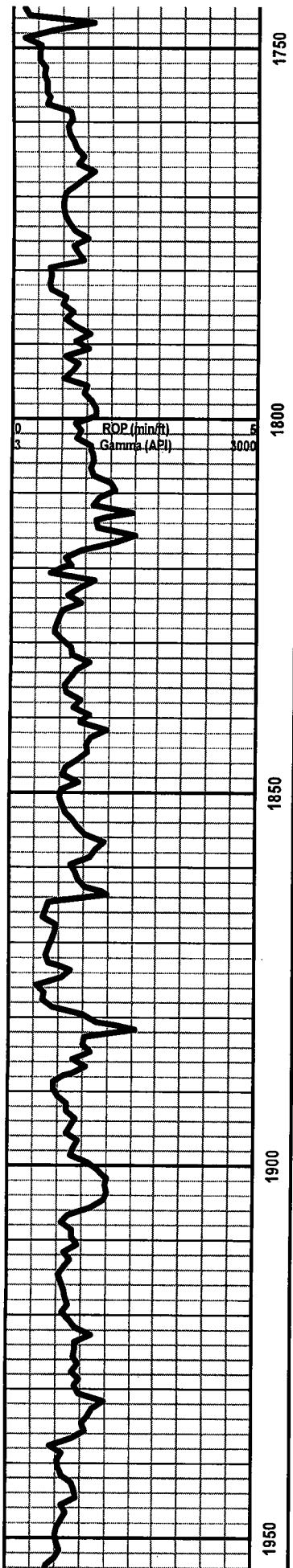
### DST's Report

**DST#3 3528'-3578'**  
**ANCHOR 50'**  
**IFP: STRONG BLOW IN 1 1/2 MIN**  
**ISI:STRONG BLOW BACK BOB IN 24 MIN**  
**FFP STRONG BLOW BACK IN 1 MIN**  
**FSI STRONG BLOW BACK BOB IN 34 MIN**  
**RECOVERY: 252' FREE OIL,189'MO/90% OIL 10% MUD**  
**189' HOCGM 10% GAS, 50% OIL, 40% MUD, 504' GIP**  
**TOTAL RECOVERY 630' BHT 114 DEG GRAVITY 32**  
**IH:1722**  
**FIF:142**  
**FFF:168**  
**ISI:990**  
**SIF:243**  
**SFF:259**  
**FSI:933**  
**FH 1589**  
**TIMES: 10,60,10,60**

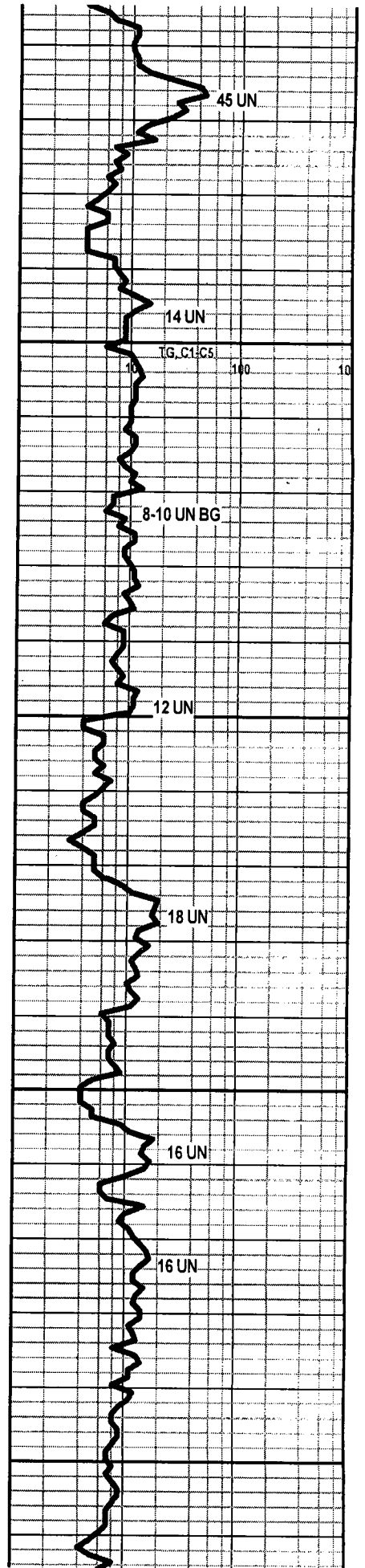
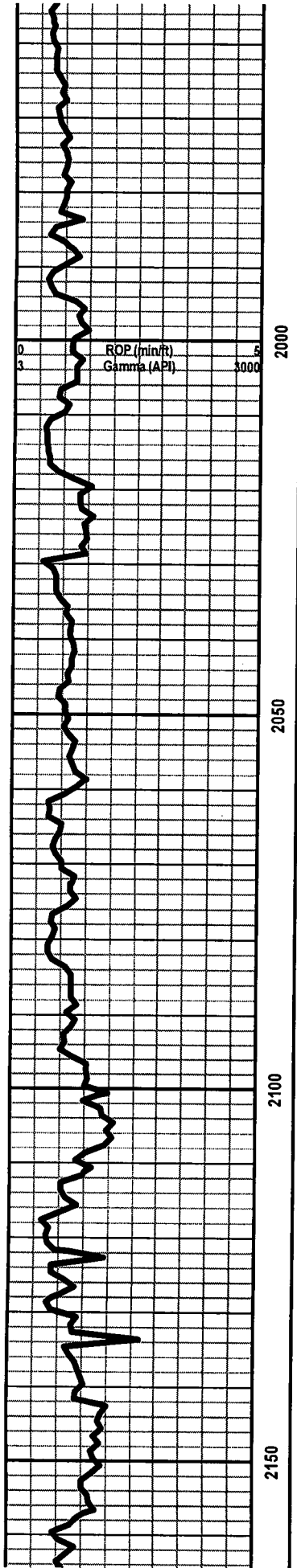
### ROCK TYPES

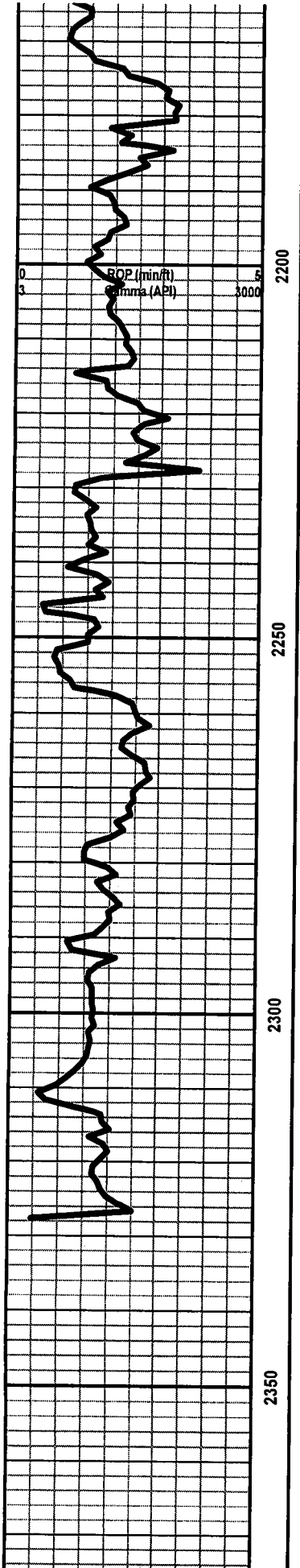
 <b>Anhy</b>  <b>Bent</b>  <b>Brec</b>  <b>Cht</b>  <b>Clyst</b>  <b>Coal</b>  <b>Congl</b>  <b>Dol</b>	 <b>Gyp</b>  <b>Igne</b>  <b>Lmst</b>  <b>Meta</b>  <b>Mrlst</b>  <b>Salt</b>  <b>Shale</b>  <b>Shcol</b>	 <b>Shgy</b>  <b>Sltst</b>  <b>Ss</b>  <b>Till</b>  <b>Carb sh</b>  <b>Dol</b>  <b>Dtd</b>  <b>Gry sh</b>	 <b>Sandylms</b>  <b>Shale</b>  <b>Sltstn</b>  <b>Shlyslts</b>  <b>Sltyslts</b>  <b>Lms</b>
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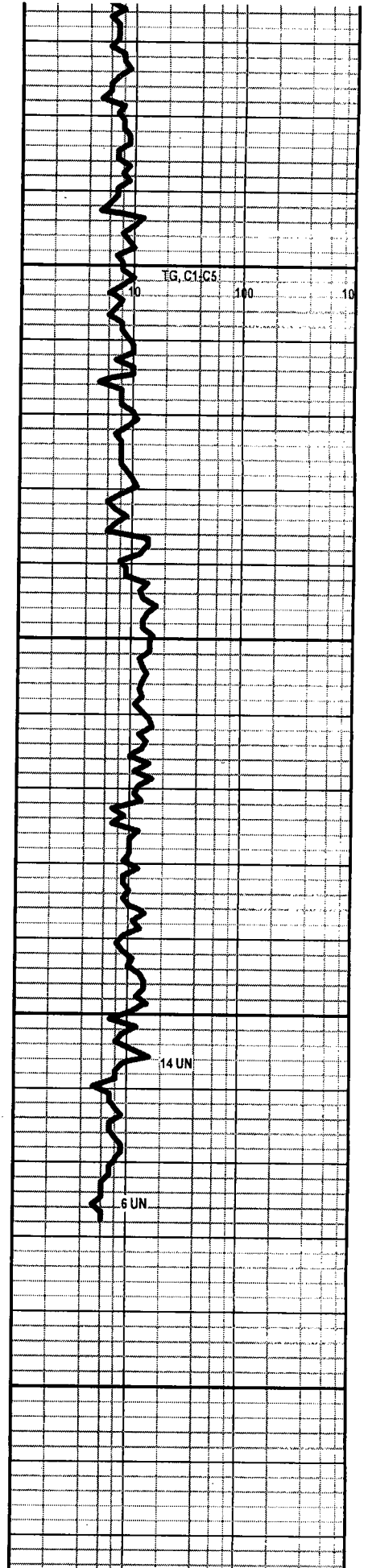


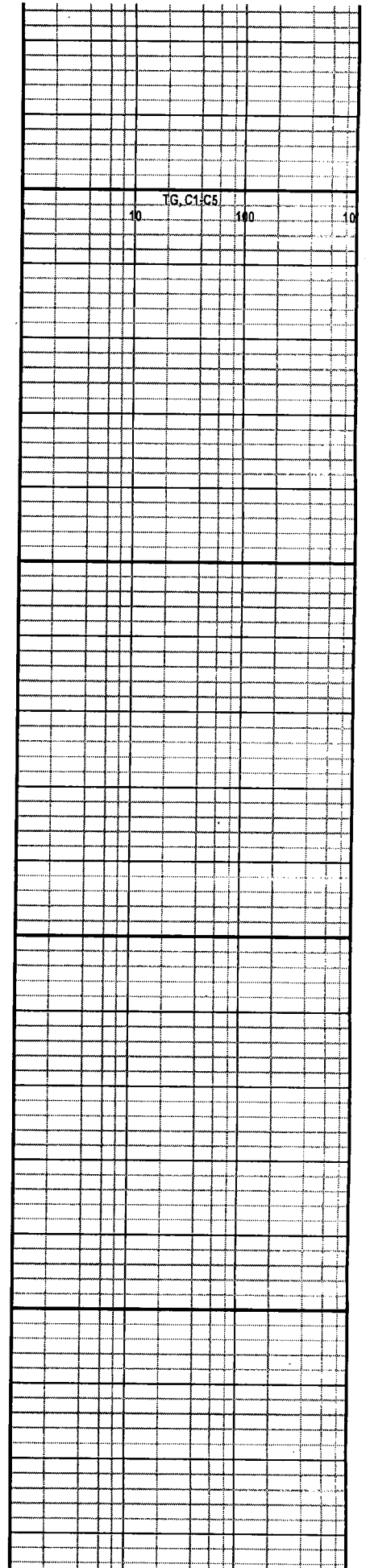
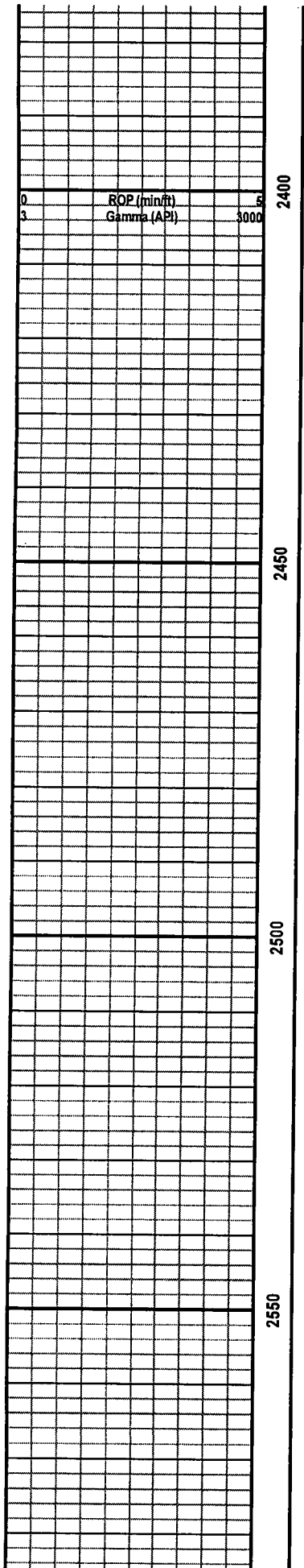


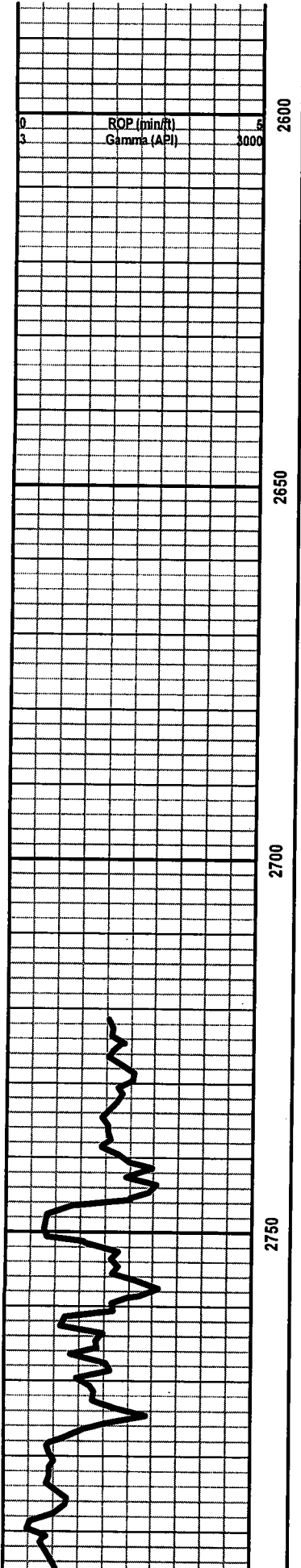




COMPUTER WAS OFF STARTING 2327'

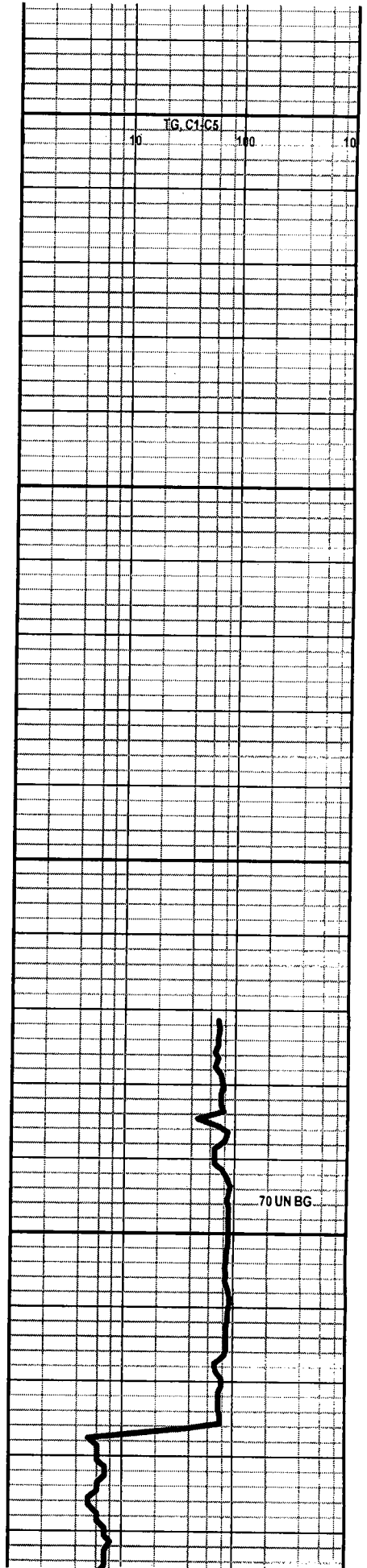


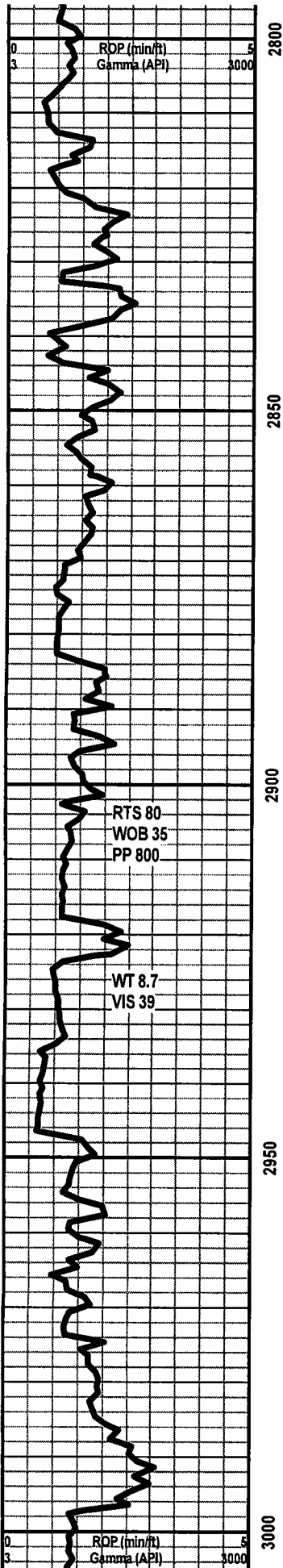




COMPUTER TURNED BACK ON 2721'

BASE ROOT SHALE 2751' -738'





START DISPLACEMENT @2808'

DISPLACEMENT COMPLETE 2848'

START 24 HR MANNED UNIT 6/27/2010

SH GRY BRN FRM BLKY TO SMOOTH BRITT SILTY IP

2920' @ 00:01 AM 06/28/2010

SH DK GRY TO GRY SMOOTH SFT TO SILTY

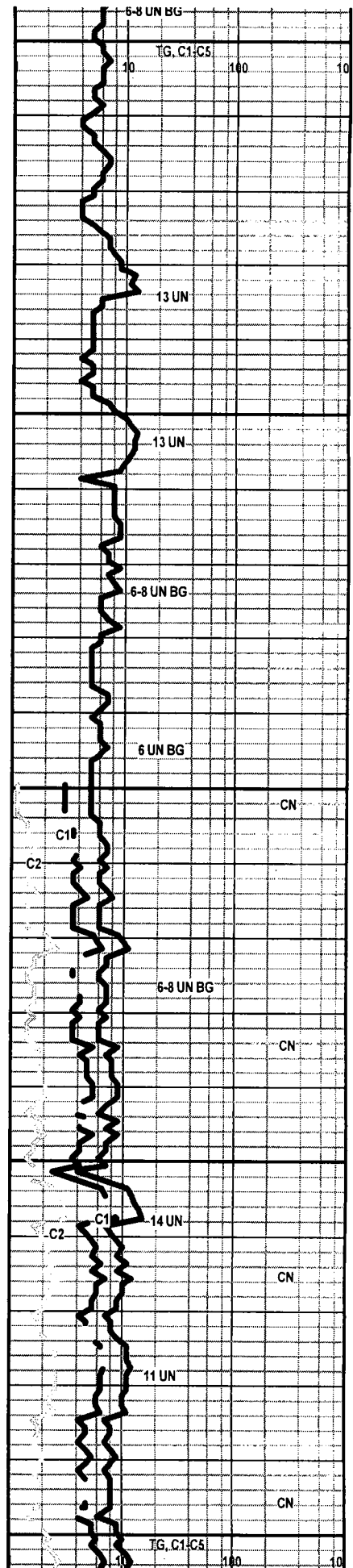
HOWARD 2947' -934'

LS GRY TN LT TN HD DN BRITT VVFN TO FN XLN MTX DIS  
GRY SH IP NO FLO NO VIS POR NO VIS SHOW

LS TN LT TN BUFF HD TO FRM BRITT VVFN TO FN XLN  
MTX SUB-CHLKY IP TR IMBD GRY SH IP TR IMBD FOSS  
FRG IP TR POOR INTERXLN POR NO FLO NO CUT NO VIS  
SHOW

LS DK GRY TO GRY HD DN TT CRYPTO TO VVFN XLN  
MTX NO FLO NO VIS POR NO VIS SHOW

SH LT GRY LT BRN SMOOTH SFT SILTY THRU



TOPEKA 3013' -1000'

LS LT GRY TN LT TN BUFF MOTT IP HD DN BRITT VFN  
TO FN XLN MTX RE-XLN MTX IP TR IMBD SM QRTZ XLS IP  
SCATT TR LT YLW FLO IP TO NO FLO POSS TT INTERXLN  
POR IP NO CUT NO VIS SHOW

LS LT TN BUFF HD DN TT CRYPTO TO VFN XLN MTX TR  
IMBD FOSS FRG IP TR DULL YLW FLO NO CUT NO VIS  
POR NO VIS SHOW

LS CRM BUFF LT TN HD TO FRM BRITT VFN TO FN XLN  
MTX SUB-CHLKY TR IMBD FOSS TR DULL YLW TO LT  
YLW FLO TR POOR MICRO PP POR IP TO NO POR NO  
CUT NO VIS SHOW

LS DK TN TO TN HD DN TT CRYPTO TO VFN XLN MTX  
NO FLO NO VIS POR NO VIS SHOW

LS TN LT TN BUFF HD TO FRM VFN TO FN XLN MTX TR  
IMBD FOSS IP SUB-CHLKY IP TR IMBD FOSS IP SUCRO  
TXT IP SCATT LT YLW FLO NO VIS POR NO CUT NO VIS  
SHOW

SH GRY LT GRY TN BUFF MOTT HD TO FRM VFN TO FN  
XLN MTX TR DISS GRY SH IP NO FLO

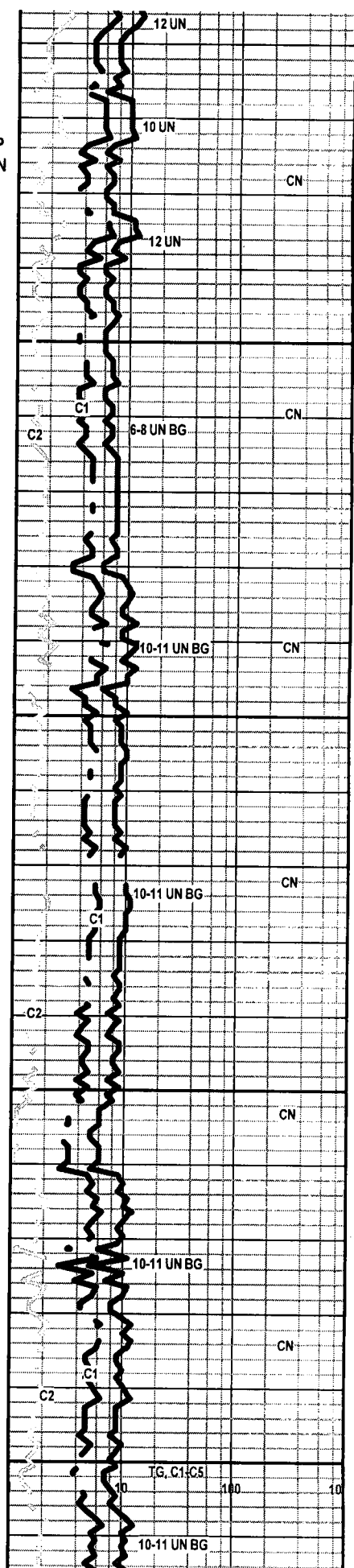
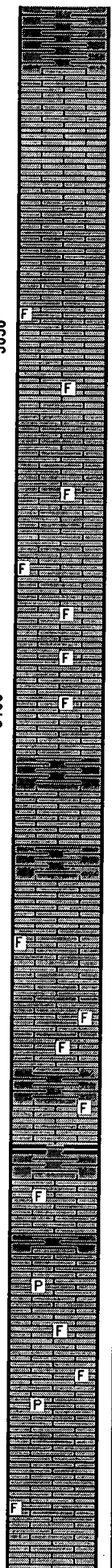
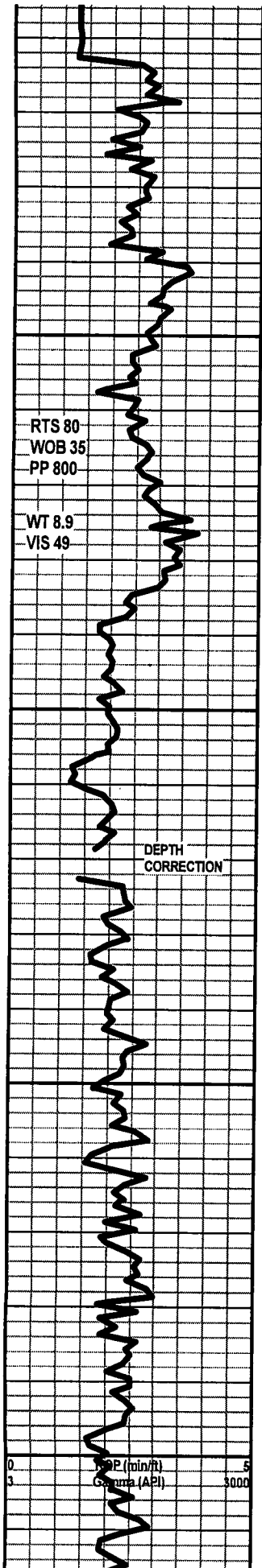
Le COMPTON 3124' -1111'

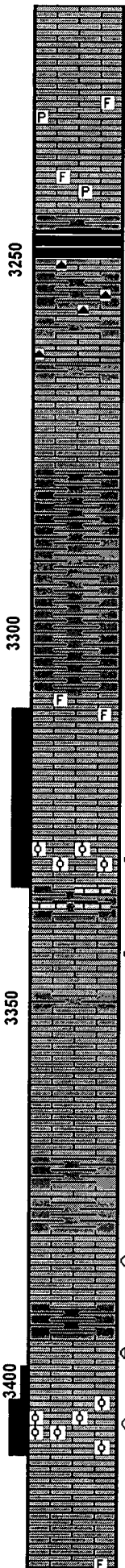
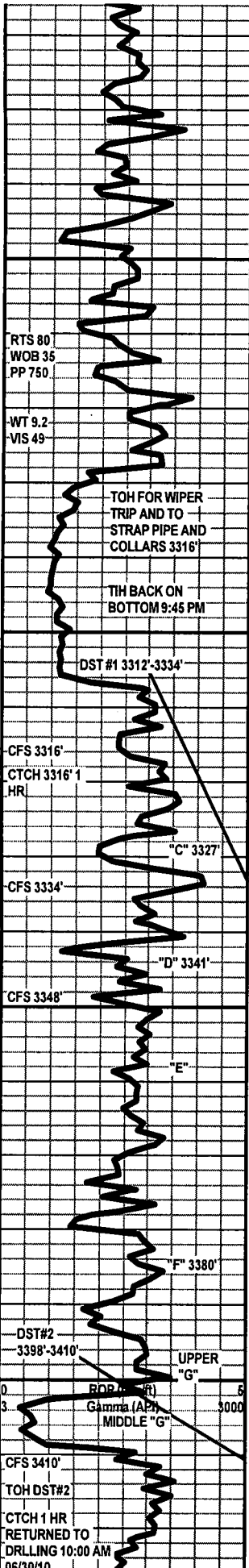
LS TN LT TN BUFF CRM FRM VFN TO FN XLN MTX TR  
IMBD FOSS FRG IP TR IMBD SM QRTZ XLS IP TR IMBD  
VR/SM LS GRNS IP SUCRO TXT IP SCATT DULL YLW FLO  
POSS TT INTERXLN POR TO TR VUGS IP ONLY NO STAIN  
NO ODOR NO CUT NO VIS SHOW

LS CRM BUFF TR OFF WHT HD DN BRITT CRYPTO TO  
VFN TO FN XLN MTX TR LOOSE FOSS FRG IN TRAY  
DISS GRY TO BRN SH NO FLO NO VIS POR NO VIS SHOW

LS LT TN CRM BUFF HD TO FRM BRITT CRYPTO TO VFN  
TO FN XLN MTX TR IMBD FOSS FRG TR PYR IP NO FLO  
NO VIS POR NO VIS SHOW

LS TN LT TN BUFF HD TO FRM VFN TO FN XLN MTX TR  
IMBD FOSS IP SUB-CHLKY IP TR IMBD FOSS IP SUCRO  
TXT IP SCATT LT YLW FLO NO VIS POR NO CUT NO VIS  
SHOW





LS GRY DK TN TO TN BUFF MOTT FN TO TR MD XLN MTX RE-XLN MTX IMBD FOSS TR PYR NODULES IN TRAY NO FLO NO VIS POR NO VIS SHOW

**HEEBNER 3245' - 1232'**

SH BLK CRAB

LS DK TN TO TN HD DN TT CRYPTO XLN MTX TR GRN CHERT IP DISS TO IMBD DK GRY SH IP NO FLO NO VIS POR NO VIS SHOW

LS GRY LT GRY HD DN TT CRYPTO XLN MTX NO FLO NO VIS POR NO VIS SHOW

**DOUGLAS 3277' -1264'**

SH DK GRY TO GRY SMOOTH FRM TO SFT SPLNTY SILTY IP

**LANSING 3306' -1293'**

LS TN LT TN CRM BUFF HD DN TT TO BRITT CRYPTO TO VFN TO FN XLN MTX TR IMBD FOSS IP SUCRO TXT IP LT BRITE YLW FLO 70% NO STAIN NO ODOR NO CUT NO VIS SHOW

3327'-3334' LS CRM BUFF OFF WHT FRM BRITT FN TO MD XLN MTX RE-XLN MTX IMBD OOLITES SUB-CHLKY TR VFN CALC XLS IMBD IN VUGS TO TR IMB QRTZ XLS IP ONLY LT BRITE YLW FLO 58% STAIN 25% HAS FAIR ODOR 40,60,80 MIN SAMPLES VUG POR 10% POOR TO FAIR TO TR GOOD INTER FOSS POR 40% FAIR FLUSH CUT SLOW MILKY BLUE STREAM CUT FROM TWO ROCKS TO LT BRITE YLW RING CUT

LS OFF WHT TO WHT FRM BRITT VFN TO FN XLN MTX TR IMBD OOLITES TR IMBD CHLK TR IMBD FOSS FRG TR PYR NODULES IN TRAY TR HD CHLK PIECES WITH DEAD OIL STAIN TR DEAD OIL STAIN ONE ROCK FAINT TR LT BRN STAIN ON TWO ROCKS SCATT LT YLW FLO 5% TR MICRO VUGS ONE ROCK TR MICRO PP POR NO OTHER VIS POR FAINT ODOR TO NO ODOR VR FAINT FLUSH CUT TO NO CUT VRY POOR SHOW

LS CRM BUFF OFF WHT TO WHT HD DN TT CRYPTO TO VFN XLN MTX TR IMBD FOSS IP TR LMNTD PYR IP LT YLW FLO NO ODOR NO STAIN NO VIS POR NO VIS SHOW

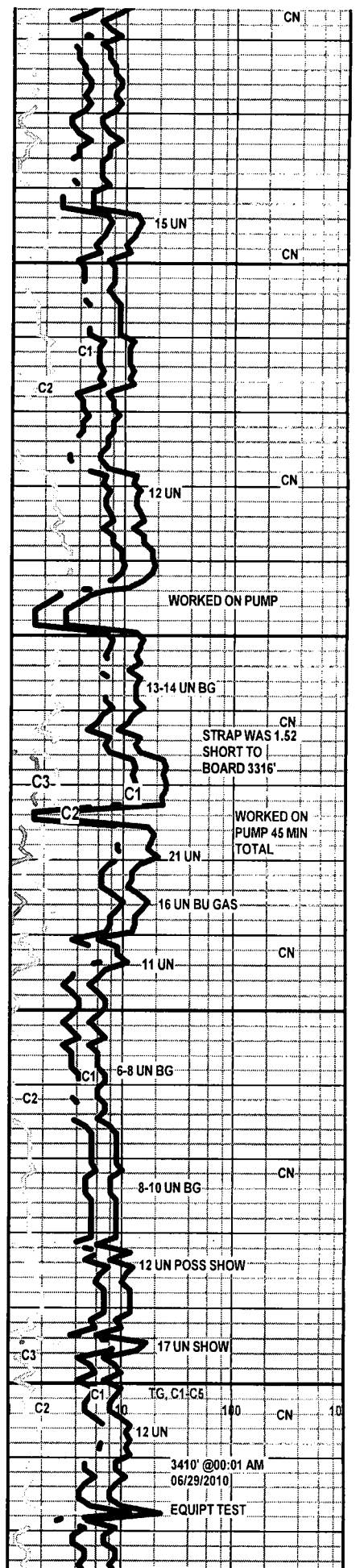
3380'-3386' LS DK TN TO TN LT TN CRM BUFF MOTT IP HD DN TT VFN TO FN XLN MTX IMBD FOSS TR LT YLW FLO 3% TR STAIN ON TWO ROCKS FAINT ODOR FAINT FLUSH CUT POOR TIGHT SHOW

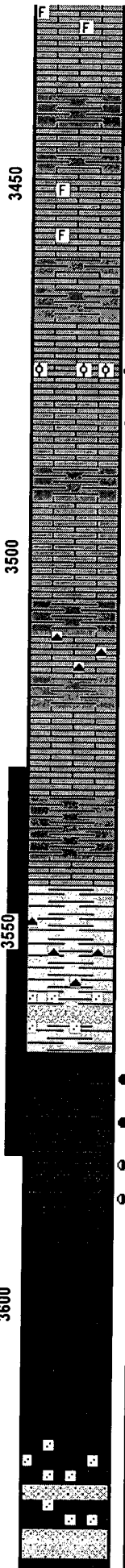
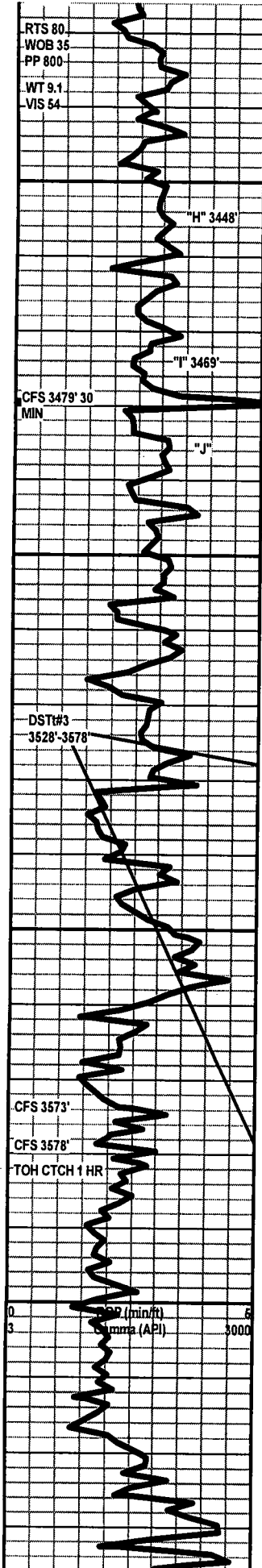
3394'-3401' LS CRM BUFF OFF WHT HD DN TT CRYPTO TO VFN TO FN XLN MTX RE-XLN MTX TR IMBD FOSS IP ONLY TR IMBD PYR TR IMBD SM QRTZ XLS IP TR STAIN 10% LT YLW TO DULL YLW FLO 30% FAINT TO POOR ODOR NO VIS POR VRY FAINT FLUSH CUT POOR TT SHOW

LS 3401'-3410' LS CRM BUFF LT TN TN ON ROCK DUE TO STAIN HD TO FRM FN TO MD XLN MTX OOMOLDIC THRU IMBD OOLITES THRU TR IMBD CHLK IP ONLY TR VR/SM CALC XLS IMBD IN VUGS TR GUMMY WHT CHLK IP LT BRITE YLW FLO 60% TR LIVE OIL ON 20% FAIR TO GOOD ODOR FAIR TO GOOD INTEROOLITIC POR FAIR MICCRO PP POR TO GOOD VUG POR INSTANT FLUSH CUT TO SLOW MILKY BLUE STREAM CUT

3409'-3421' LS LT GRY TN LT TN BUFF HD DN TT CRYPTO XLN MTX NO FLO NO VIS POR NO VIS SHOW

3421'-3431' LS LT TN CRM BUFF OFF WHT LT GRY IP MOTT HD DN





BRITT VFN TO FN XLN MTX IMBD FOSS TR IMBD OOLITES IP TR LMNTD PYR IP SUB-CHLKY IP LT BRITE YLW MIN FLO THRU TR DEAD OIL STAIN ON TWO ROCKS NO VIS POR FAINT TO NO FLUSH CUT TO VRY FAINT LT YLW RING CUT.

3431'-3450' LS LT GRY TN CRM BUFF HD DN TT TO BRITT VFN TO FN XLN MTX TR IMBD PYR IP TR DISS GRY SH IP NO FLO NO VIS POR NO VIS SHOW

3450'-3460' GRY LT GRY DK TN TO TN HD DN TT CRYPTO TO VFN XLN MTX TR IMBD FOSS IP LT YLW FLO IP NO VIS POR NO VIS SHOW

SH DK GRY TO GRY FRM SMOOTH BRITT CALC TO LMY

LS TN LT TN CRM BUFF HD TO FRM BRITT FN XLN MTX TR MD XLN MTX RE-XLN MTX IP TR IMBD VR/SM OOLITES TO TR MD OOLITES IP VRY FAINT ODOR TR STAIN ON TWO ROCKS LT BRITE YLW FLO 70% POSS TT INTERXLN POR TO NO POR FAINT TO POOR FLUSH CUT SLOW SPURTY MILKY BLUE STREAM CUT FROM ONE ROCK POOR TT SHOW

3480-3488' LS CRM OFF WHT TO WHT HD TO FRM BRITT CRYPTO TO FN XLN MTX TR IMBD FOSS TR VR/FN CALC XLS IP TR IMBD CLR QRTZ XLS IP LT YLW FLO 60% NO ODOR TR OIL STAIN ON 1% NO VIS POR FAINT INSTANT FLUSH CUT TO NO CUT POOR TT SHOW

LS DK TN TO TN GRY TO LT GRY HD DN TT CRYPTO XLN MTX THRU DISS GRY SH IP NO FLO NO VIS POR NO VIS SHOW

LS TN BUFF HD DN TT CRYPTO XLN MTX TR LT TN TO OPAQUE CHERT IP NO FLO NO VIS POR NO VIS SHOW

LS CRM OFF WHT TO WHT HD DN TT CRYPTO TO VFN TO FN XLN MTX TR SM LOOSE QRTZ XLS IN TRAY TR LMNTD PYR IP TR DISS DK BRN SH IP NO FLO NO VIS POR NO VIS SHOW

**BASE KANSAS CITY 3532' -1519'**

SH DK GRY TO GRY HD TO FRM BLKY CALC SMOOTH BRITT

SH DK BRN TO BRN /RED HD SMOOTH WAXY TXT TR IMBD LT BRN TO TN ORNG CHERT IP TR IMBD SUB-RND TO RND SM SS GRNS IP

SS CLR FRSTY WHT UNCONSOLIDATED SM SUB-ANG TO SUB-RND SS GRNS TR MD SUB-RND TO RND SS GRNS NO STAIN NO ODOR NO CUT NO VIS SHOW

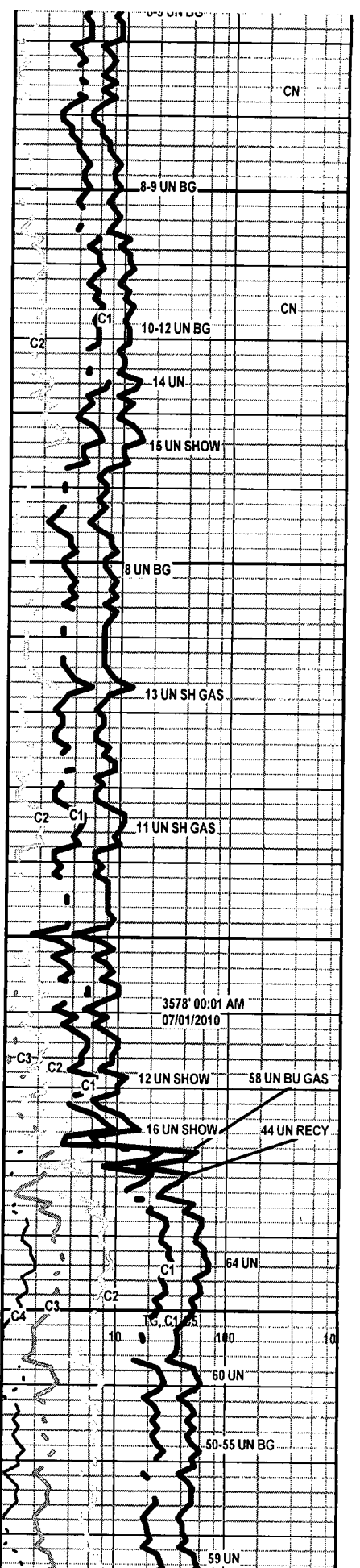
**ARBUCKLE 3568' -1555'**

3568'-3573' DOL LT TN DUE TO STAIN OFF WHT TO WHT HD FRM VFN TO FN TO MD XLN MTX CLUSTERS OF ANG TO SUB-ANG DOL GRNS WITH TR IMBD SM TO MD CLR TO FRSTY QRTZ XLS TR SM DOL GRNS SUCRO TXT IP TR IMBD FOSS ONE ROCK STAIN IN 65% OF ROCK LT BRITE YLW FLO 40% GLDN YLW FLO 50% POOR TO FAIR TO TR GOOD INTERXLN POR TR MICRO PP POR 20% INSTANT FAIR TO GOOD ODOR 20-60 MIN SAMPLE INSTAN FLUSH CUT TO SLOW MILKY BLUE STREAM CUT TWO ROCKS STRONG MILKY BLUE STREAM CUT TO GLDN YLW RING CUT TO BRN LEACH ON DISH

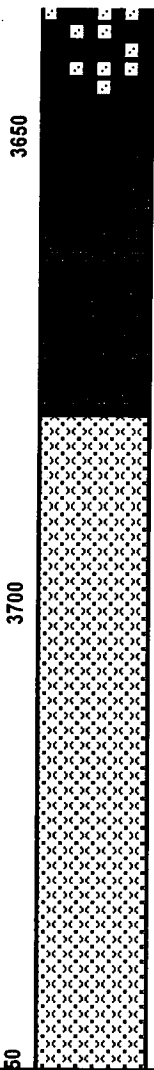
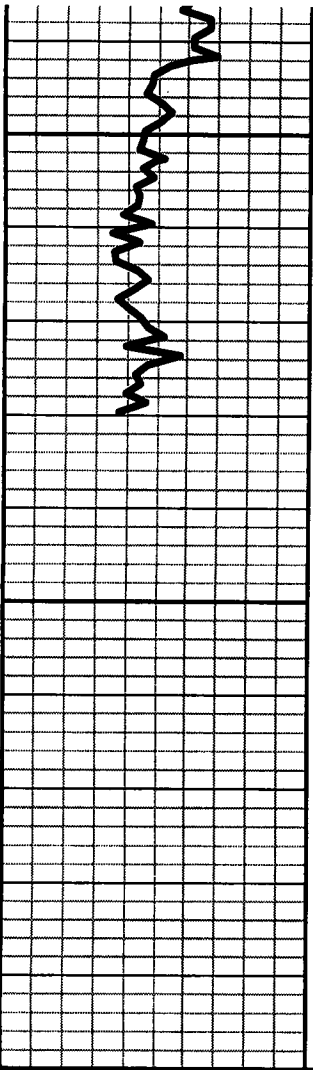
3573'-3578' DOL TN LT TN BUFF HD TO FRM FN XLN MTX SM IMBD SM DOL XLS TR IMBD SM TO MD QRTZ XLS TR VRY SM CALC XLS IP SUCRO TX FAIR TO GOOD ODOR GLDN YLW FLO THRU STAIN 45% 5% ROCK SATURATED WITH STAIN TR LIVE OIL IP. POOR TO FAIR INTERXLN TO FAIR PP AND MICRO PP POR TR VUGS IP INSTANT FLUSH CUT TO GOOD STRONG MILKY BLUE STREAM CUT

3578'-3587' DOL TN LT TN DUE TO STAIN BUFF OFF WHT TO LT GRY HD TO FRM VF-FN XLN MTX TO MD XLN MTX IMBD SM TO MD ANG DOL XLS TR IMBD CLR TO FSTY WHT QRTZ XLS TR IMBD OOLITES IP DULL GLDN TO LT GLDN FLO THRU STAIN 45% POOR TO FAIR INTERXLN POR TO TR PP POR INSTANT FLUSH CUT TO GOOD SLOW MILKY BLUE STREAM CUT

3587'-3616' DOL OFF WHT TO WHT HD TO FRM BRITT VFN TO FN XLN MTX SUB-CHLKY TO CHLKY IMBD VRY/SM TO SM SUB-RND TO RND DOL GRNS POSS POOR TO FAIR INTERXLN TO INTER GRAN POR LT YLW FLO NO STAIN NO ODOR NO CUT N VIS SHOW







3617'-3623' DOL OFF WHT TO WHT HD DN TT CRYPTO TO VWFN XLN  
 MTX TR IMBD CLR SM RND SS GRNS IMBD IP NO FLO NO VIS POR NO  
 VIS SHOW

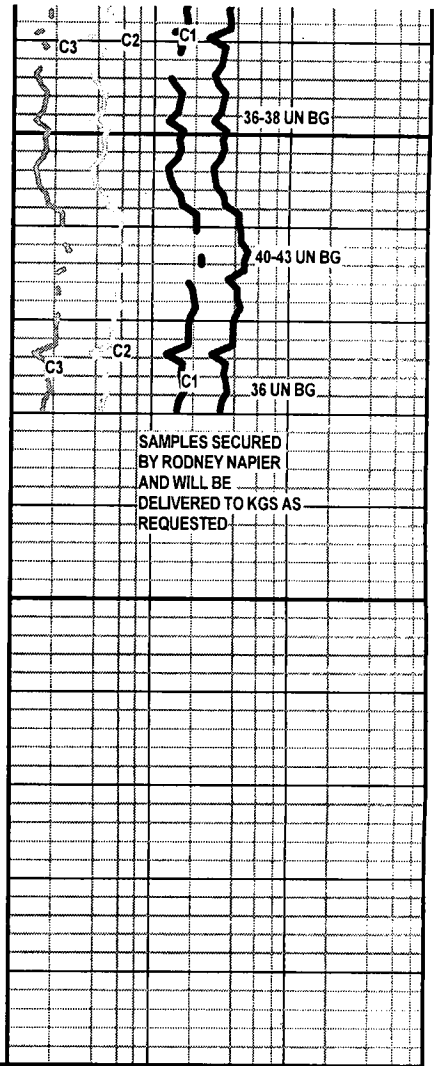
3629'-3633' SS CLR FRSTY WHT SUB-ANG TO RND TO SUB-RND SM TO  
 MD GRNS UNCONSOL LOOSE IN TRAY NO STAIN NO FLO NO VIS SHOW

3633'-3647' DOL OFF WHT TO WHT HD TO FRM BRITT VWFN TO FN XLN  
 MTX IMBD SM SUB-RND TO RND SS GRNS POSS FAIR INTERXLN TO  
 INTER GRAN POR NO FLO NO STAIN NO ODOR NO CUT N VIS SHOW

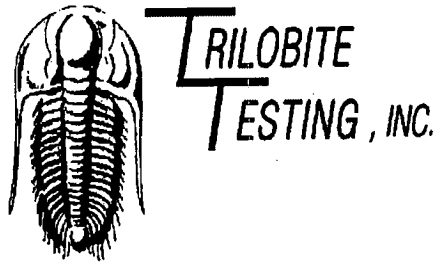
DOL LT GRY OFF WHT TO WHT HD FRM CRYPTO TO VWFN TO FN XLN  
 MTX SUCRO TXT TR IMBD PYR TO LMNTD PYR IP NO FLO NO VIS POR  
 NO VIS SHOW

**RTD 3680' @ 1:18 pm 07/01/2010**

**CTCH 1.5 HRS  
 TOH FOR LOGS**



SAMPLES SECURED  
 BY RODNEY NAPIER  
 AND WILL BE  
 DELIVERED TO KGS AS  
 REQUESTED



## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary & Associates INC**

1515 Wynkoop  
STE 700  
Denver Co 80202

ATTN: Tom Fertal

**18-17s-15w**

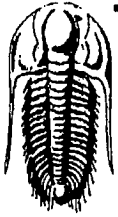
**Stos ET AL #1-18**

Start Date: 2010.06.29 @ 05:03:43

End Date: 2010.06.29 @ 14:07:53

Job Ticket #: 37237                      DST #: 1

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



**TRILOBITE TESTING, INC**

## DRILL STEM TEST REPORT

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w**

Job Ticket: 37237

DST#: 1

Test Start: 2010.06.29 @ 05:03:43

### GENERAL INFORMATION:

Formation: **Lansing C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:01:53

Time Test Ended: 14:07:53

Test Type: Conventional Bottom Hole

Tester: Jeff Brown

Unit No: 31

Interval: **3312.00 ft (KB) To 3334.00 ft (KB) (TVD)**

Total Depth: 3334.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2013.00 ft (KB)

2003.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 8017**

Inside

Press@RunDepth: 39.12 psig @ 3316.00 ft (KB)

Start Date: 2010.06.29

End Date:

2010.06.29

Capacity: 8000.00 psig

Last Calib.: 2010.06.29

Start Time: 05:03:48

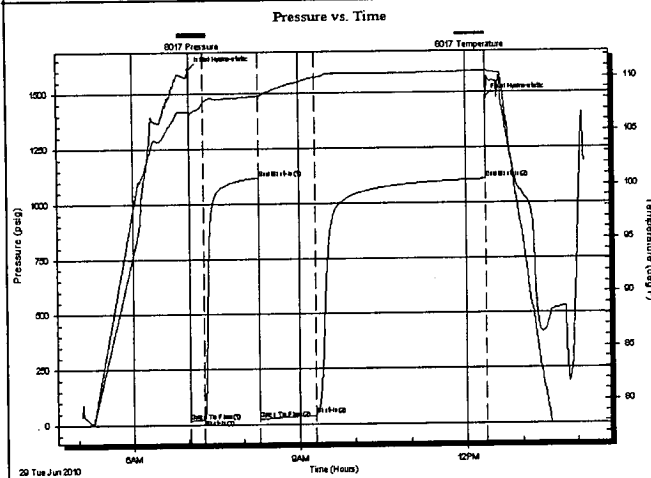
End Time:

14:07:52

Time On Btm: 2010.06.29 @ 07:01:43

Time Off Btm: 2010.06.29 @ 12:21:13

**TEST COMMENT:** IFF-Weak blow built to 1 3/4 in  
ISI-Dead no blow back  
FFP-Weak blow built to 1 1/4 in  
FSI-Dead no blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.07	106.88	Initial Hydro-static
1	16.47	106.05	Open To Flow (1)
16	23.61	107.81	Shut-In(1)
75	1117.50	108.31	End Shut-In(1)
76	26.42	107.70	Open To Flow (2)
136	39.12	109.99	Shut-In(2)
320	1106.28	110.51	End Shut-In(2)
320	1473.87	110.76	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
25.00	MW with oil speakes 15%M85%W	0.35

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w**

Job Ticket: 37237

DST#: 1

Test Start: 2010.06.29 @ 05:03:43

### Tool Information

Drill Pipe:	Length: 3288.00 ft	Diameter: 3.80 inches	Volume: 46.12 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 46.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3312.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3284.00	
Shut In Tool	5.00			3289.00	
Hydraulic tool	5.00			3294.00	
Jars	5.00			3299.00	
Safety Joint	3.00			3302.00	
Packer	5.00			3307.00	29.00 Bottom Of Top Packer
Packer	5.00			3312.00	
Stubb	1.00			3313.00	
Perforations	3.00			3316.00	
Recorder	0.00	8017	Inside	3316.00	
Recorder	0.00	8352	Outside	3316.00	
Perforations	15.00			3331.00	
Bullnose	3.00			3334.00	22.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>51.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w**  
Job Ticket: 37237      DST#: 1  
Test Start: 2010.06.29 @ 05:03:43

**Mud and Cushion Information**

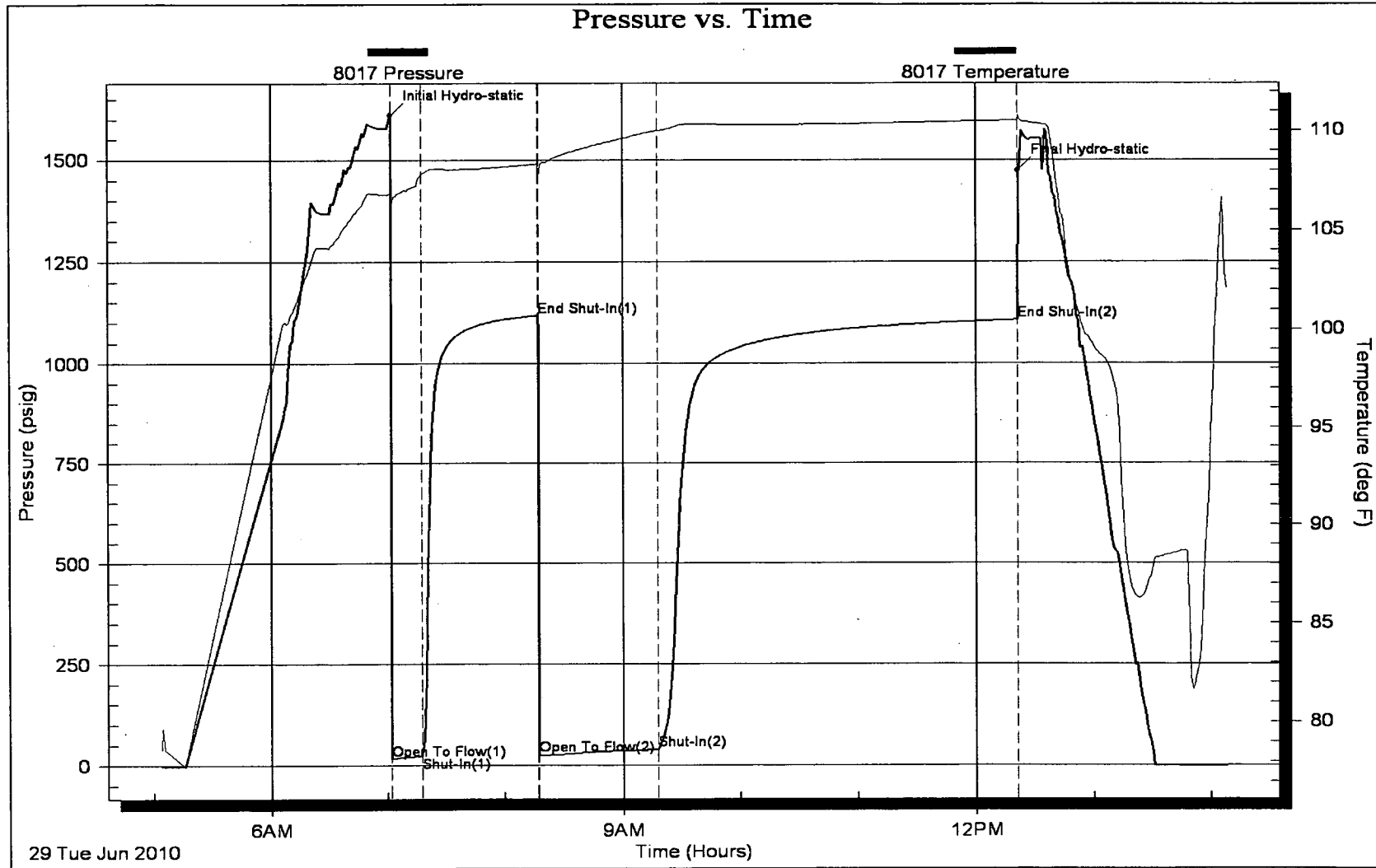
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	1900 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3100.00 ppm			
Filter Cake: inches			

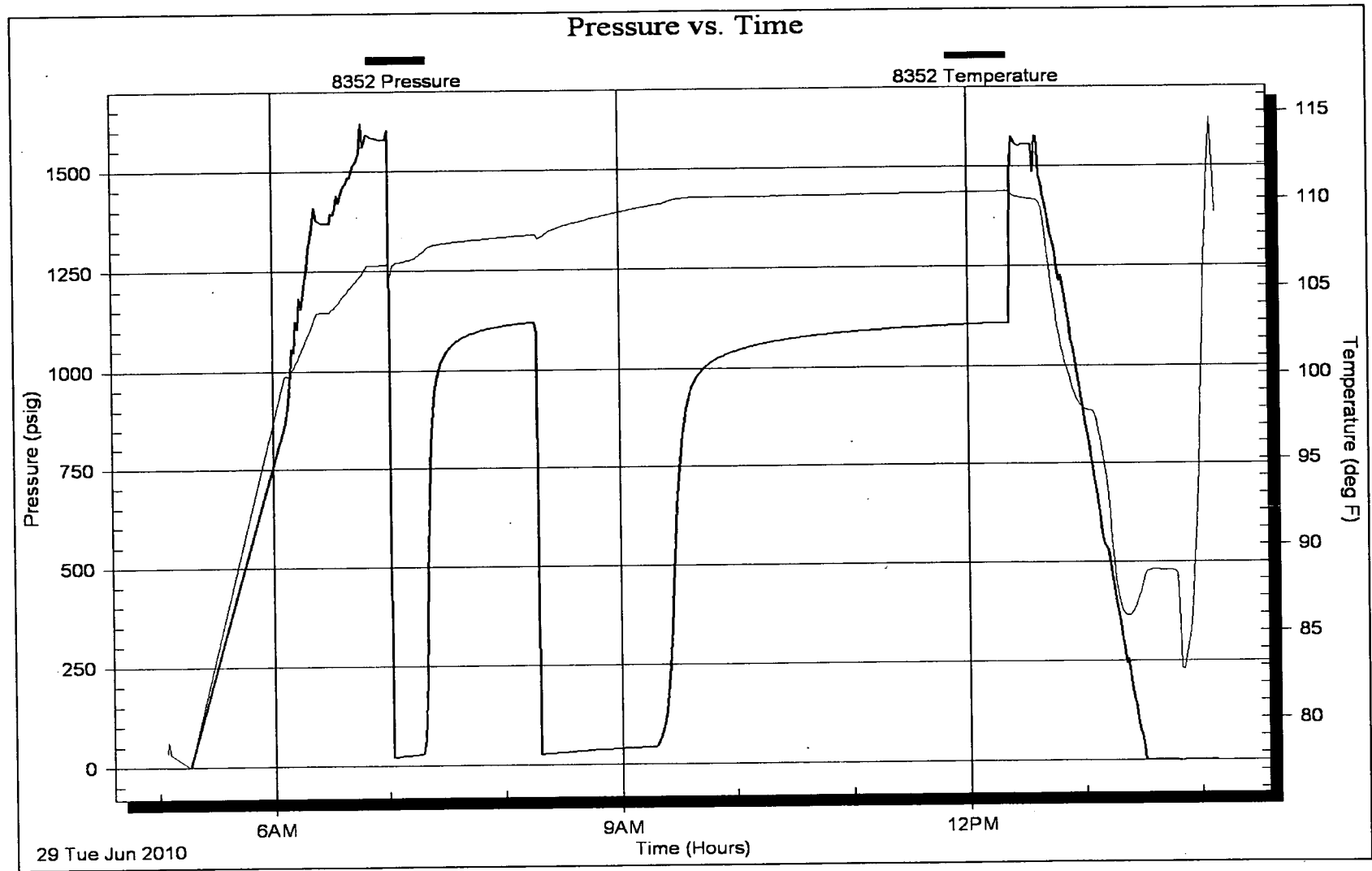
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
25.00	MW with oil speakles 15%M85%W	0.351

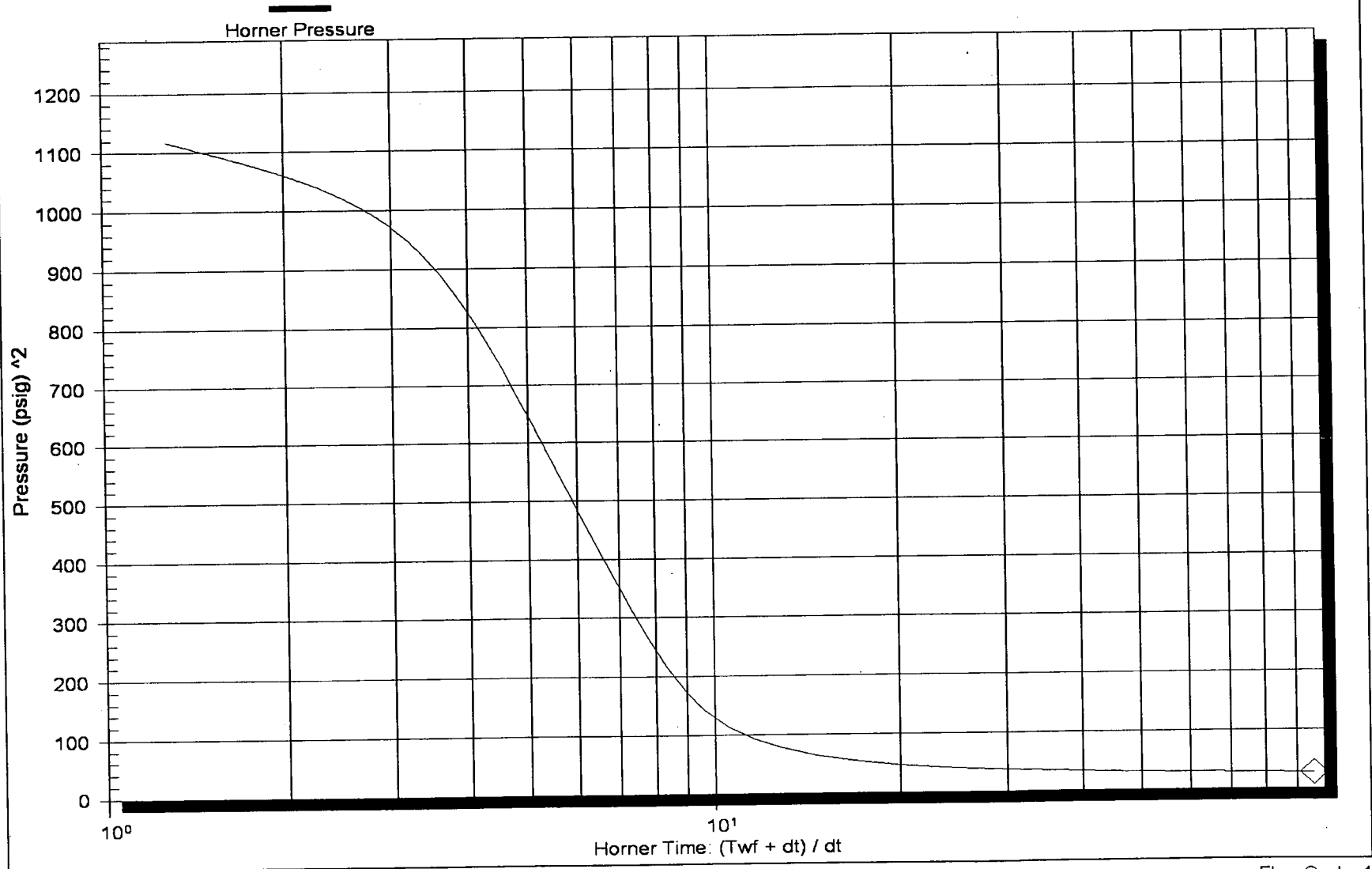
Total Length: 25.00 ft      Total Volume: 0.351 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







### Horner Plot



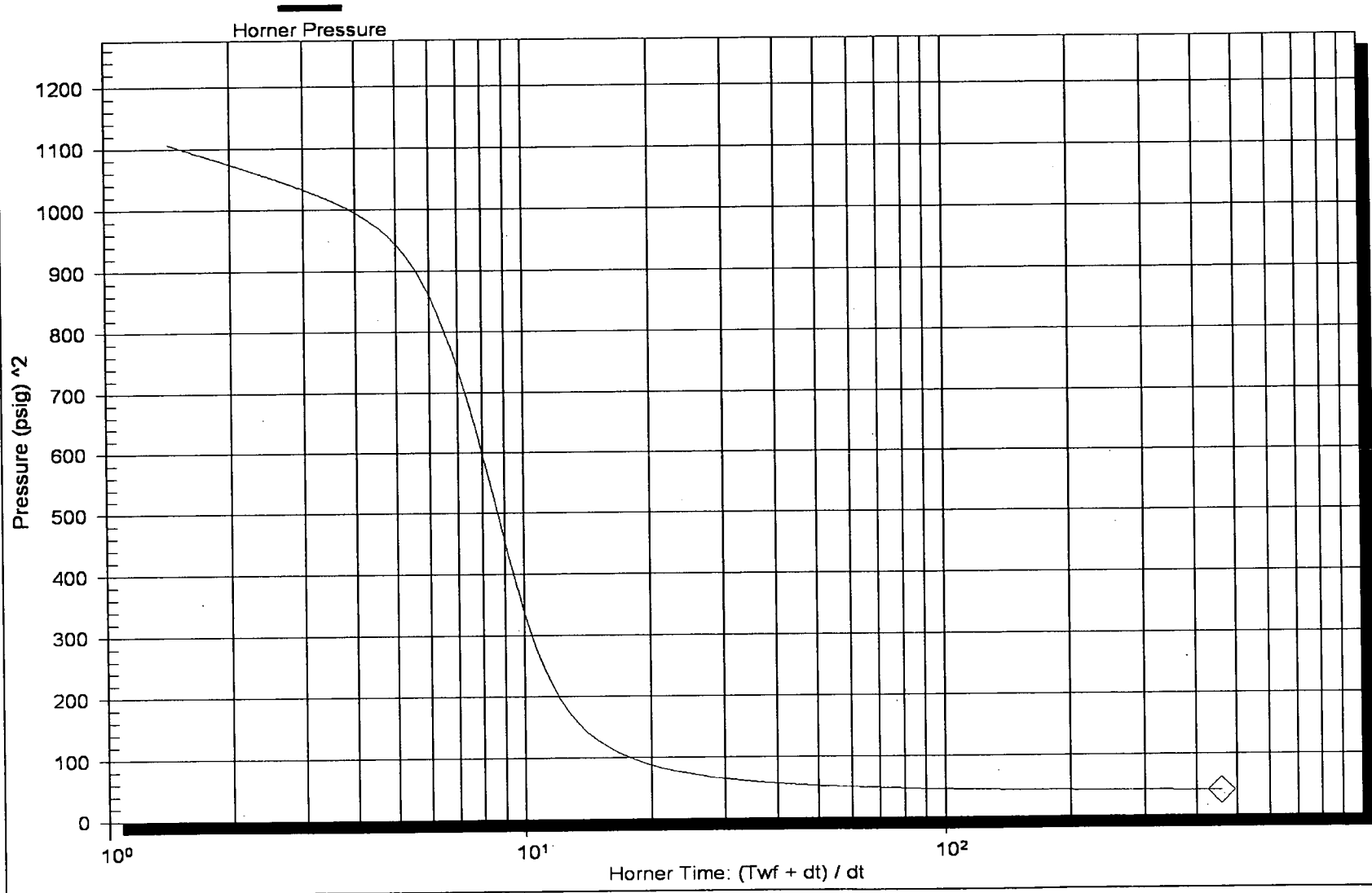
Serial Number: 8017 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

### Horner Plot

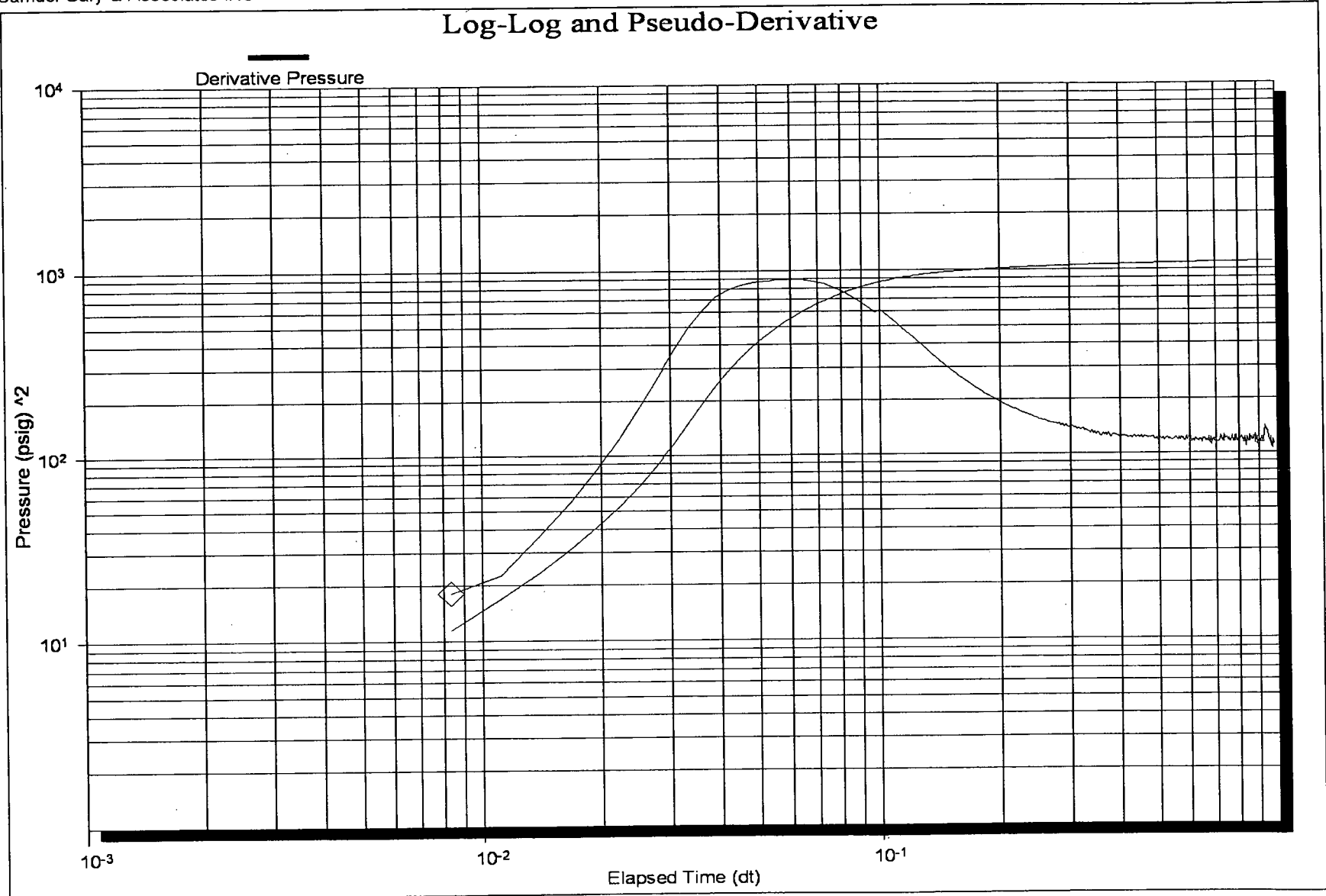


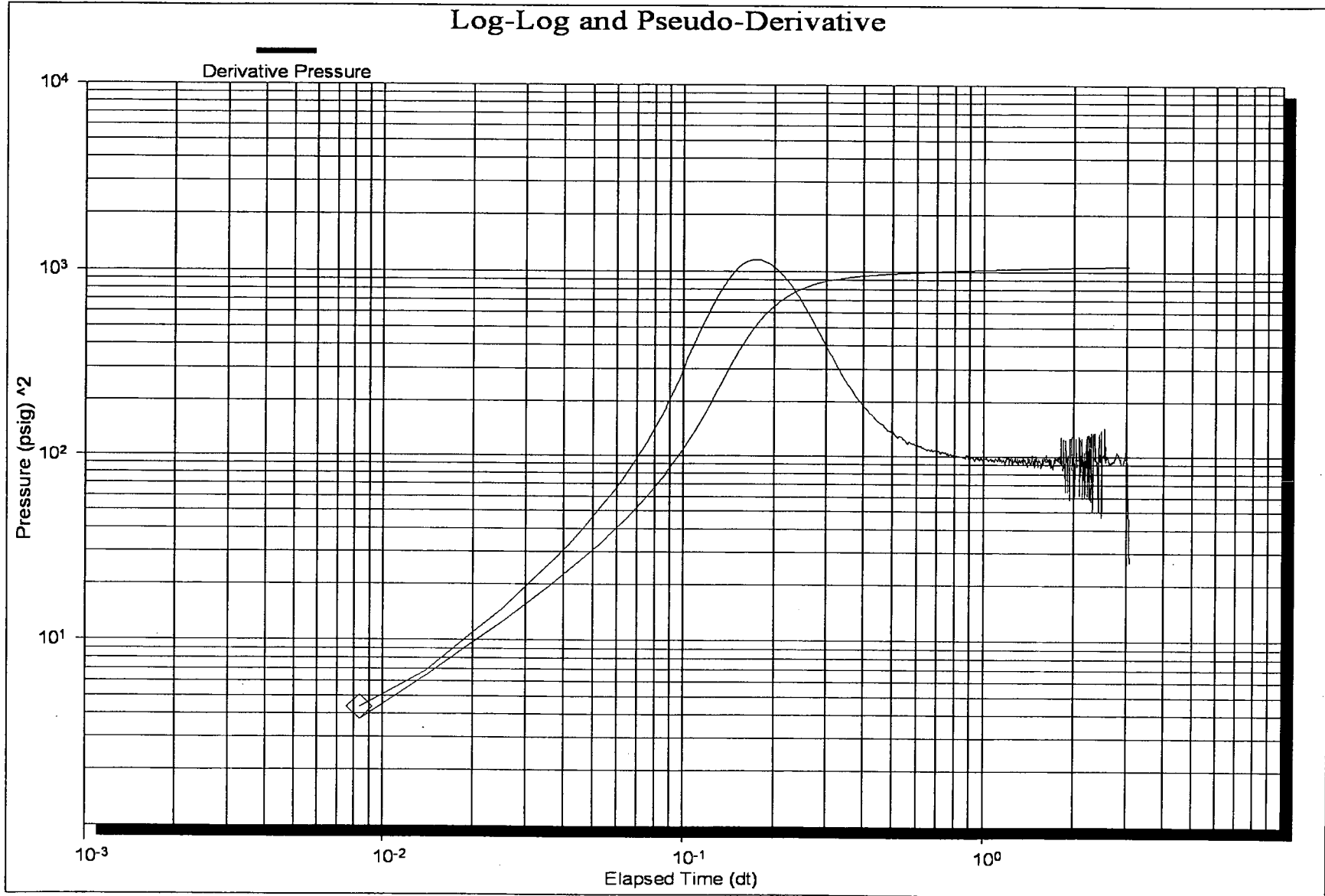
Serial Number: 8017 (Inside)

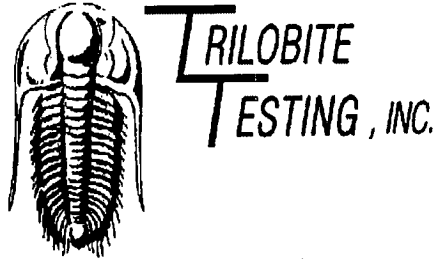
P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 2







## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary & Associates INC**

1515 Wynkoop  
STE 700  
Denver Co 80202

ATTN: Tom Fertal

**18-17s-15w Barton**

**Stos ET AL #1-18**

Start Date: 2010.06.29 @ 00:08:08

End Date: 2010.06.29 @ 07:00:08

Job Ticket #: 37238                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Samuel Gary & Associates INC

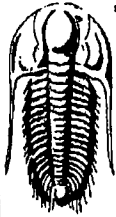
Stos ET AL #1-18

18-17s-15w Barton

DST # 2

Lansing Middle "G"

2010.06.29



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37238      **DST#: 2**  
Test Start: 2010.06.29 @ 00:08:08

## GENERAL INFORMATION:

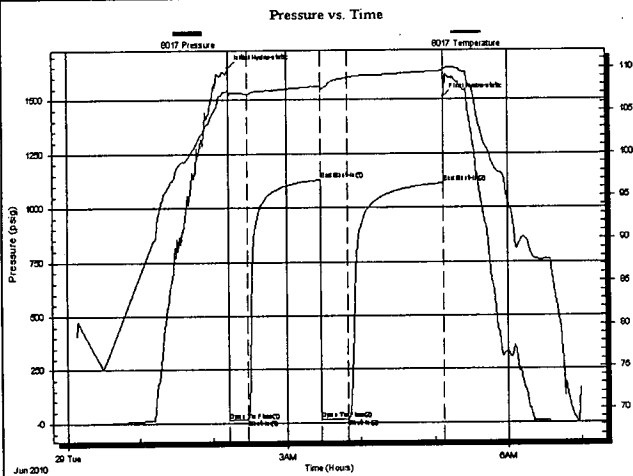
Formation: **Lansing Middle "G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:13:08  
 Time Test Ended: 07:00:08  
 Test Type: Conventional Bottom Hole  
 Tester: Jeff Brown  
 Unit No: 31  
 Interval: **3398.00 ft (KB) To 3410.00 ft (KB) (TVD)**  
 Total Depth: 3410.00 ft (KB) (TVD)  
 Reference Elevations: 2013.00 ft (KB)  
 2003.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 KB to GR/CF: 10.00 ft

## Serial #: 8017

Inside

Press@RunDepth: 17.56 psig @ 3399.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2010.06.29      End Date: 2010.06.29  
 Start Time: 00:08:13      End Time: 07:00:07      Last Calib.: 2010.06.30  
 Time On Btm: 2010.06.29 @ 02:12:58  
 Time Off Btm: 2010.06.29 @ 05:07:38

TEST COMMENT: IFP-Weak blow built to 3/4 in  
 IS-Dead no blow back  
 FFP-Dead no blow  
 FSI-Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1647.42	107.47	Initial Hydro-static
1	12.63	106.54	Open To Flow (1)
15	14.96	106.97	Shut-In(1)
75	1128.65	107.87	End Shut-In(1)
76	15.74	107.20	Open To Flow (2)
97	17.56	108.84	Shut-In(2)
175	1112.04	109.61	End Shut-In(2)
175	1511.43	109.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MW with oil specks 50%M50%W	0.14

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37238      **DST#: 2**  
Test Start: 2010.06.29 @ 00:08:08

### Tool Information

Drill Pipe:	Length: 3380.00 ft	Diameter: 3.80 inches	Volume: 47.41 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3398.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

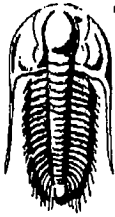
Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3370.00	
Shut In Tool	5.00			3375.00	
Hydraulic tool	5.00			3380.00	
Jars	5.00			3385.00	
Safety Joint	3.00			3388.00	
Packer	5.00			3393.00	29.00      Bottom Of Top Packer
Packer	5.00			3398.00	
Stubb	1.00			3399.00	
Recorder	0.00	8017	Inside	3399.00	
Recorder	0.00	8352	Outside	3399.00	
Perforations	8.00			3407.00	
Bullnose	3.00			3410.00	12.00      Bottom Packers & Anchor

**Total Tool Length: 41.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37238

DST#: 2

Test Start: 2010.06.29 @ 00:08:08

## 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:

3600 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
10.00	MV with oil specks 50%M50%W	0.140

Total Length: 10.00 ft

Total Volume: 0.140 bbf

Num Fluid Samples: 0

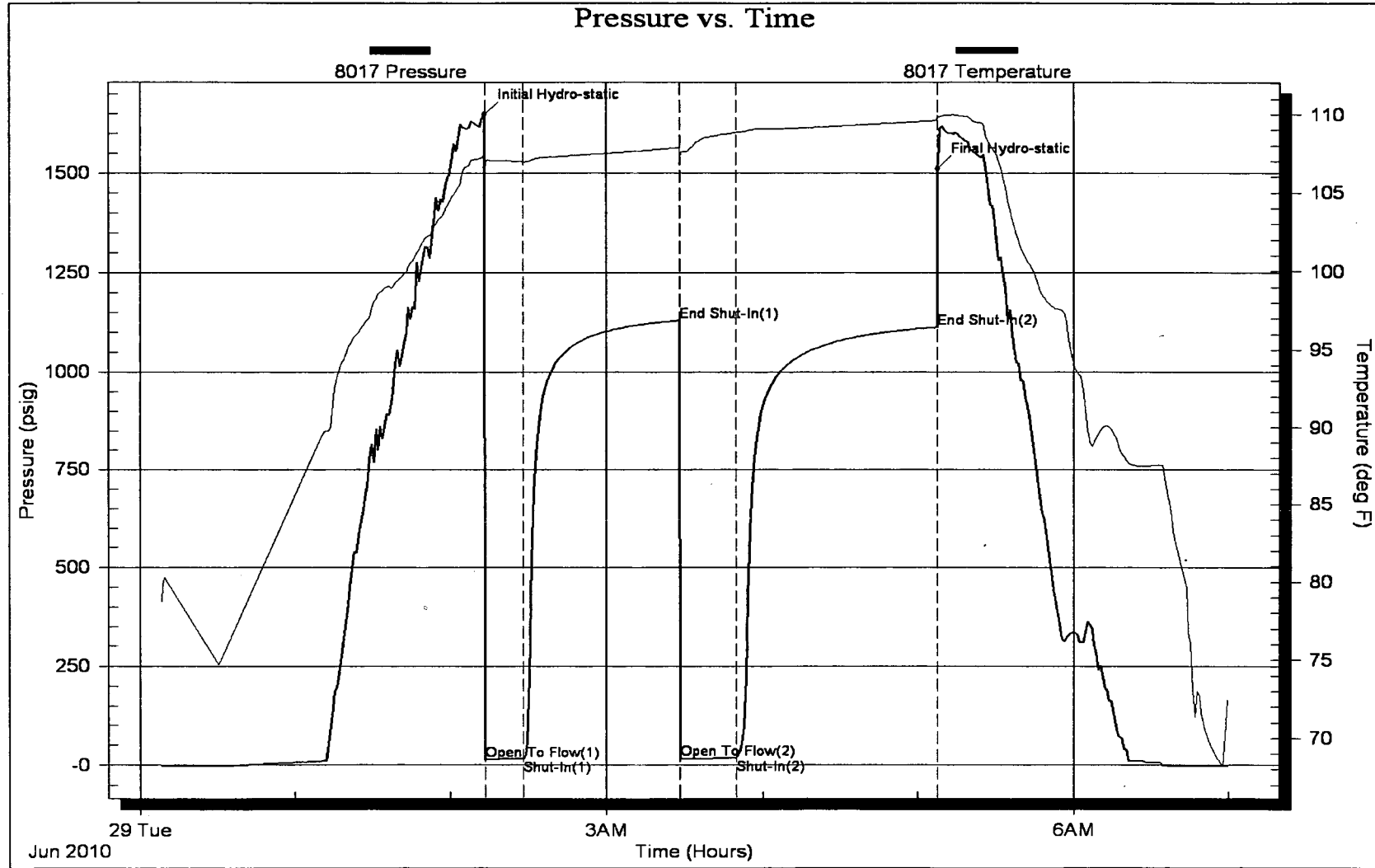
Num Gas Bombs: 0

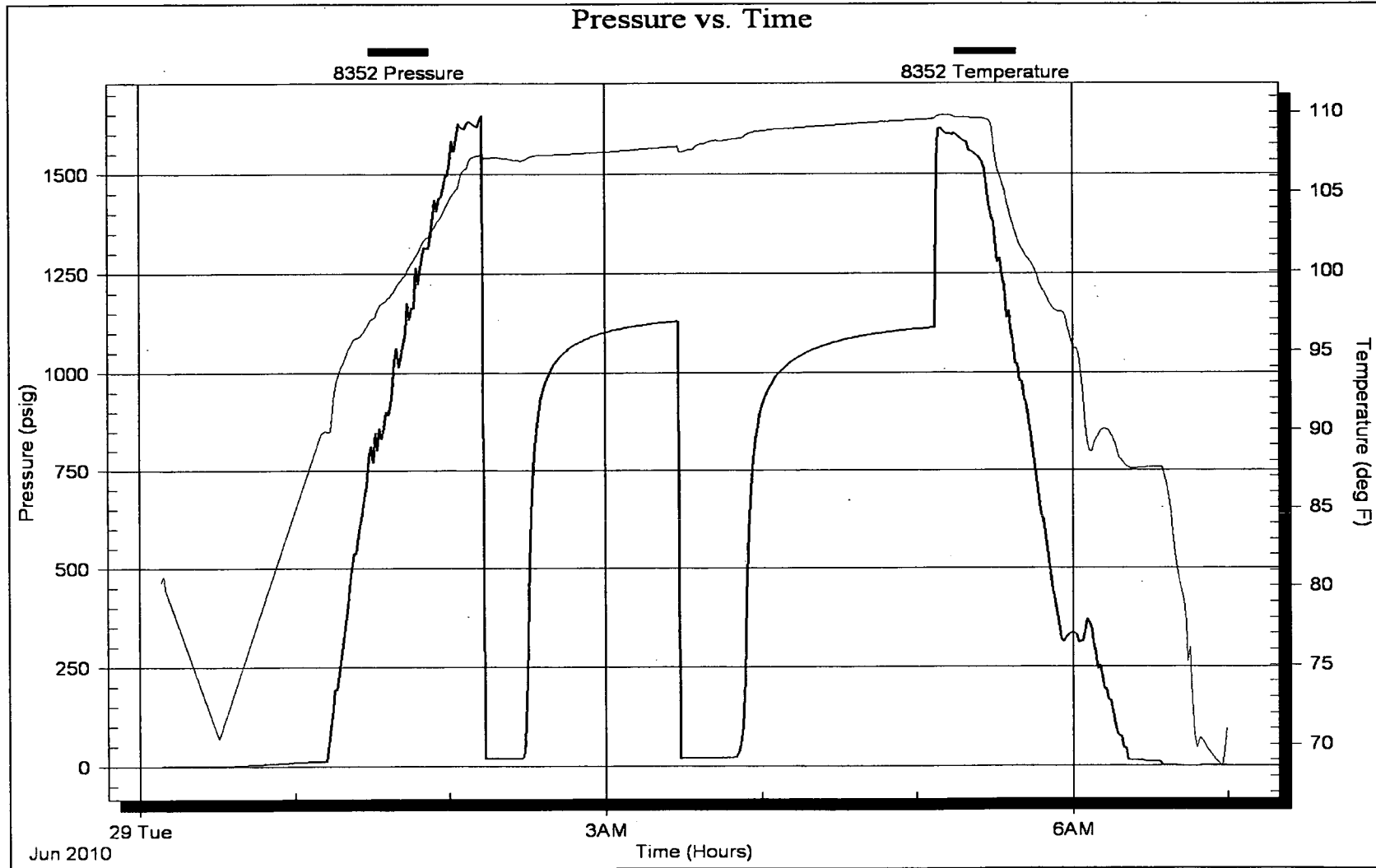
Serial #:

Laboratory Name:

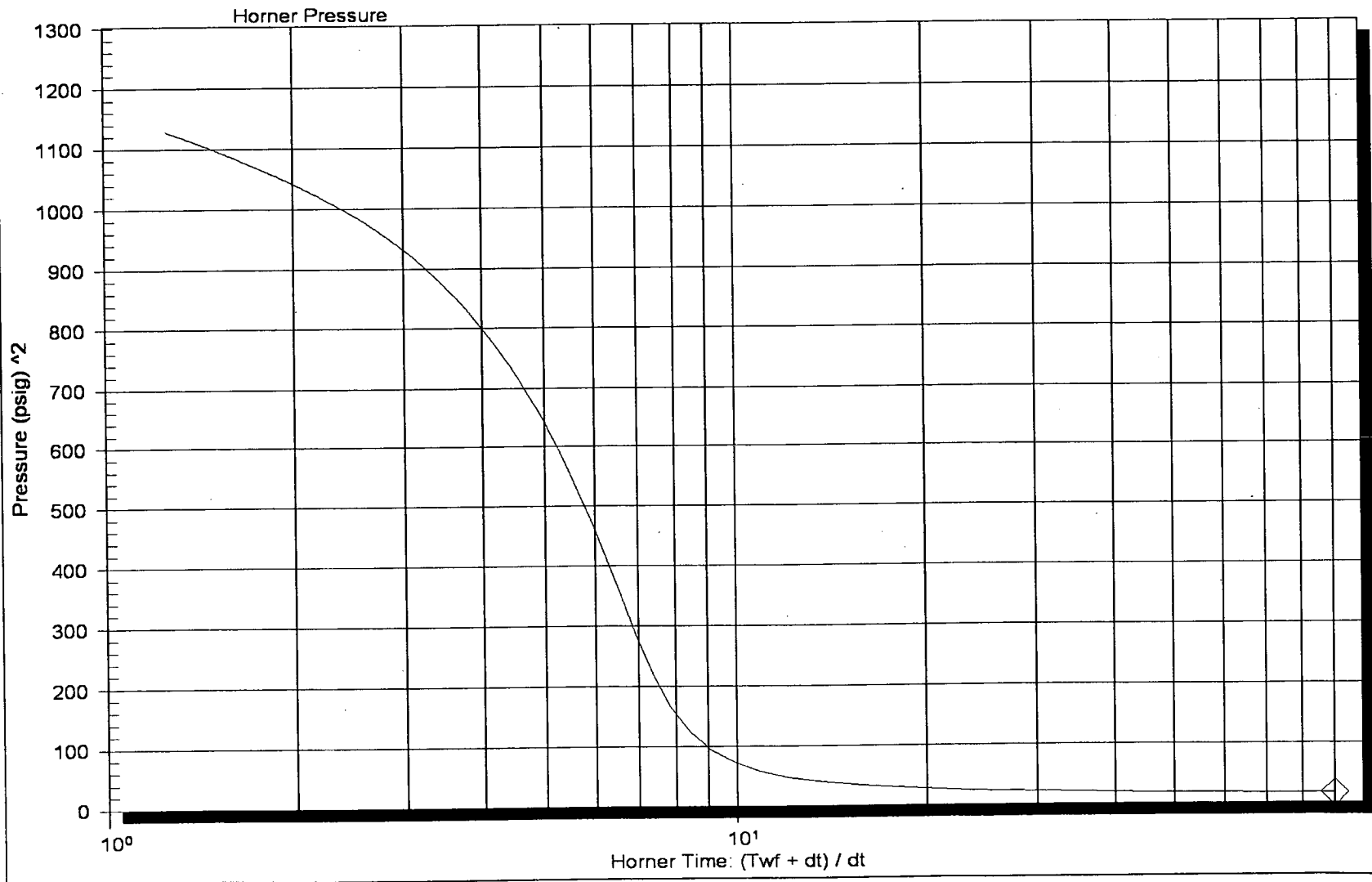
Laboratory Location:

Recovery Comments:





### Horner Plot



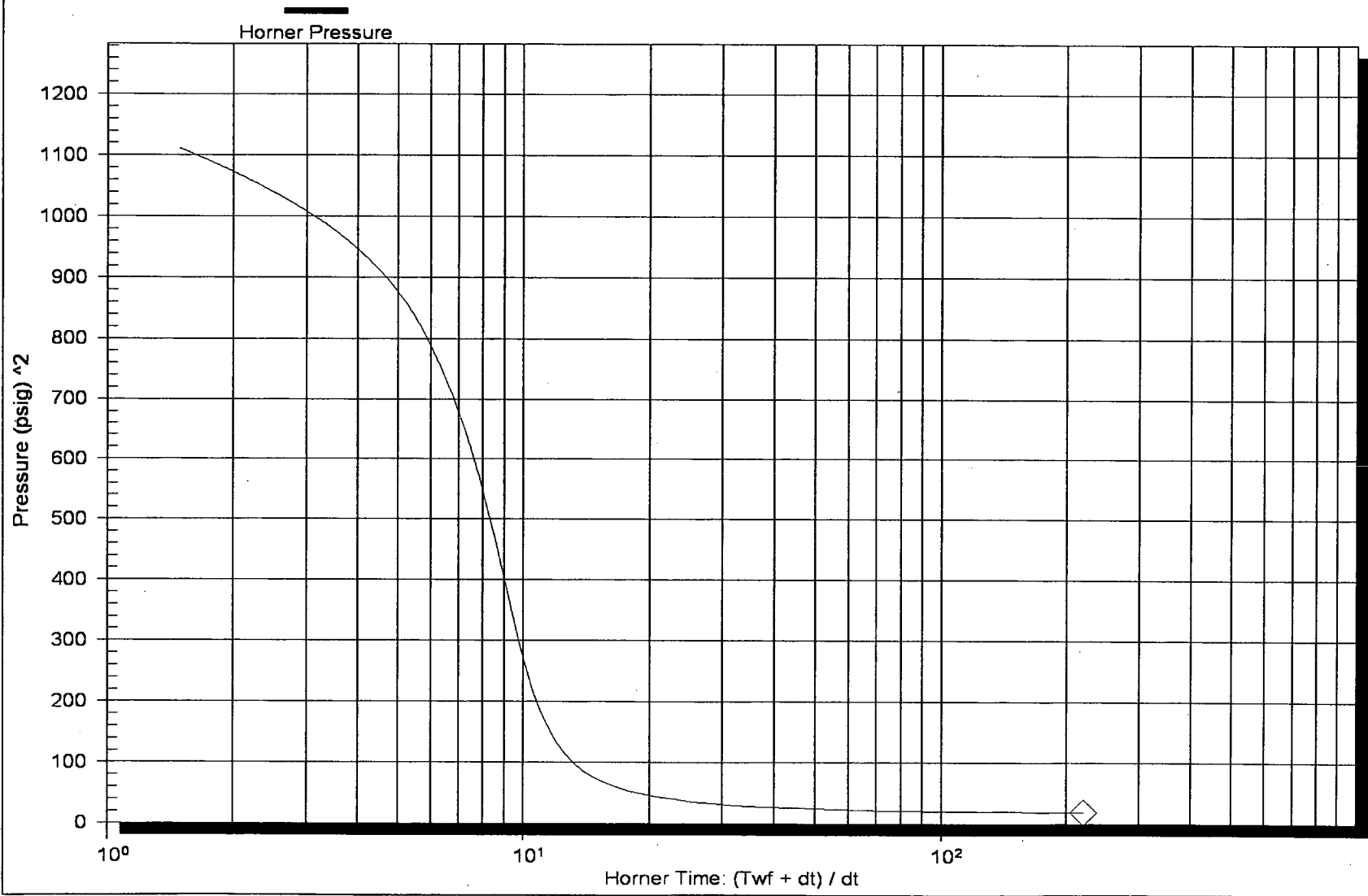
Serial Number: 8017 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

### Horner Plot



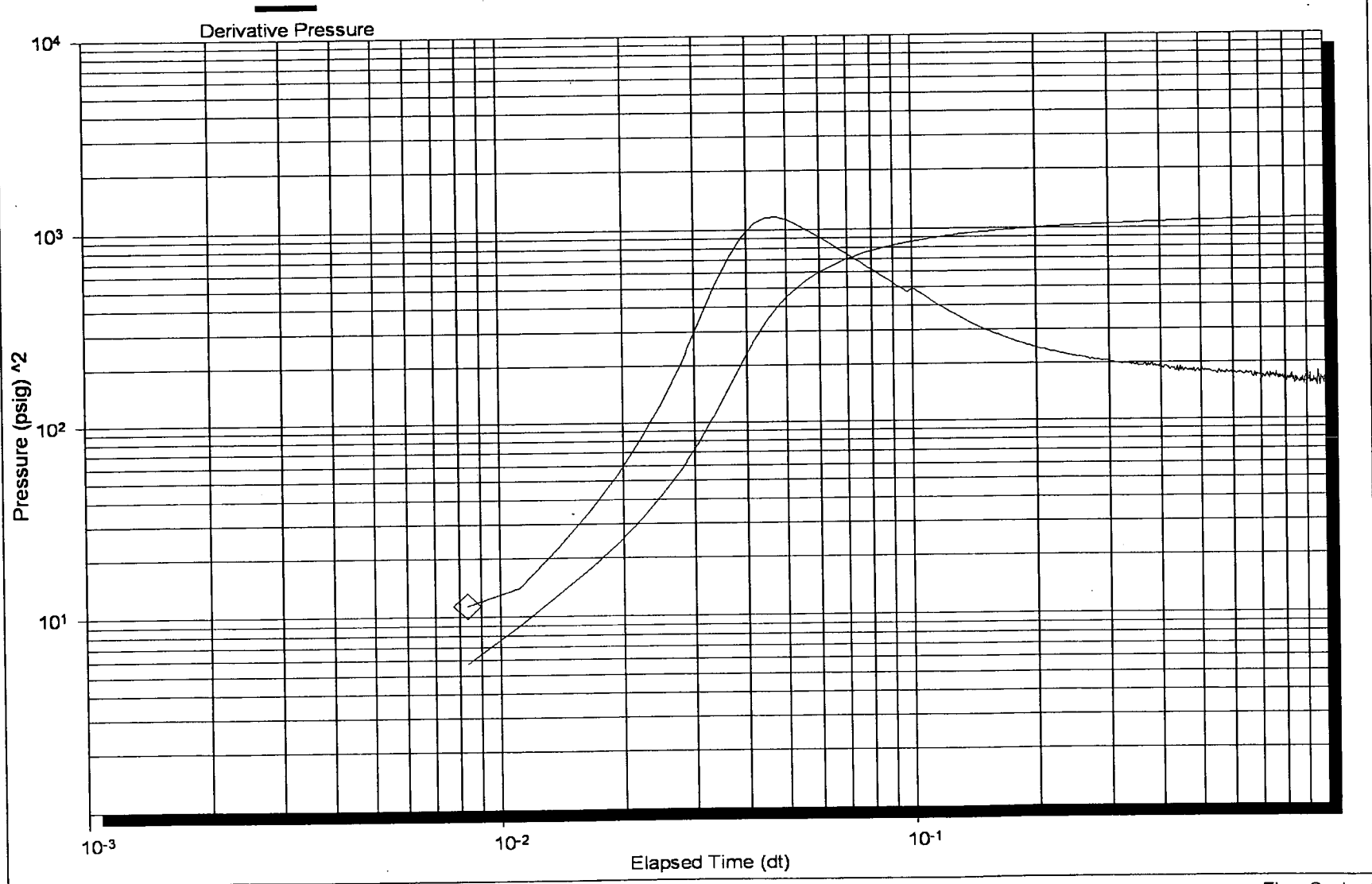
Serial Number: 8017 (Inside)

P\* :

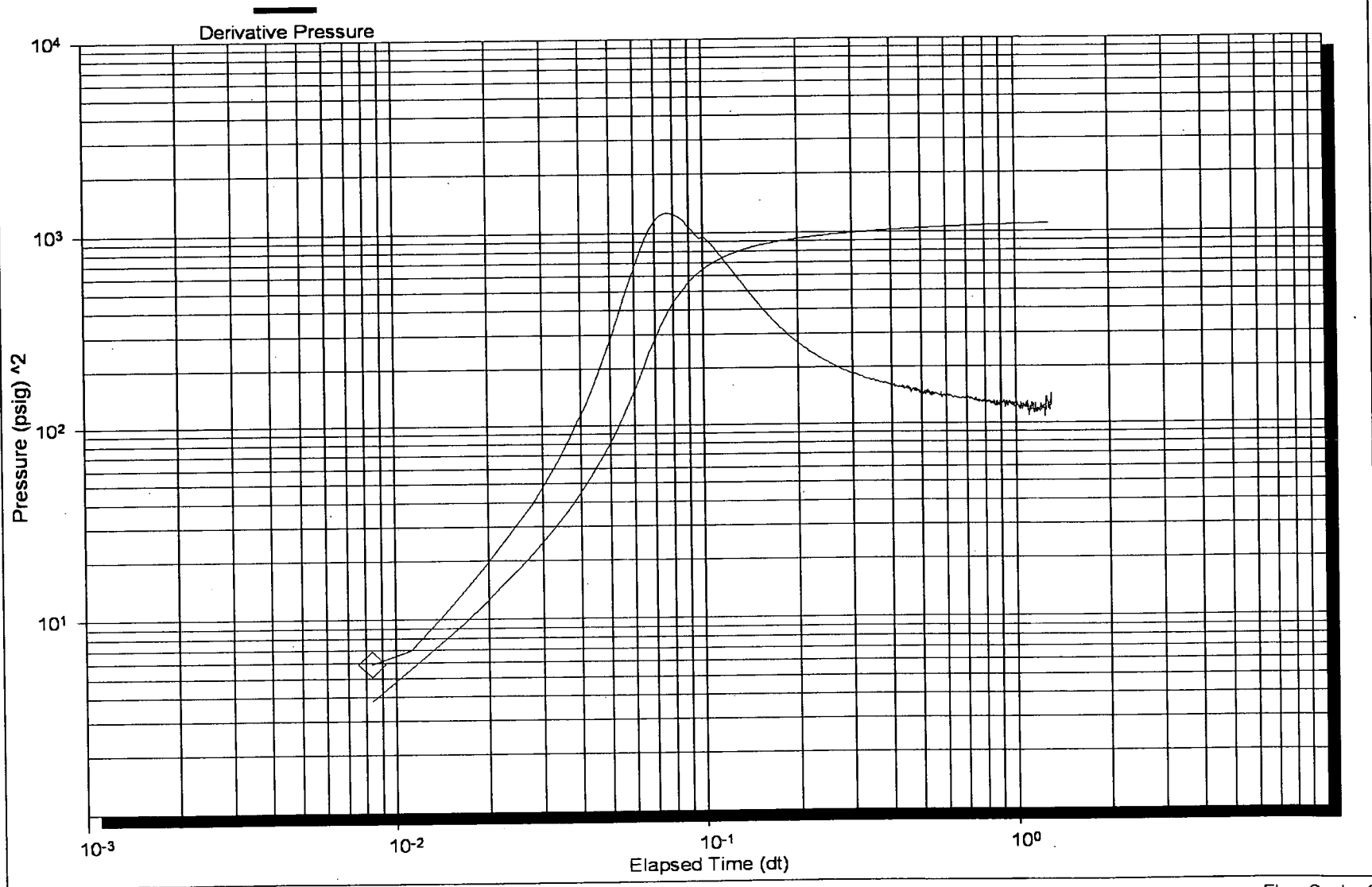
Slope (m) : kpa/log cycle

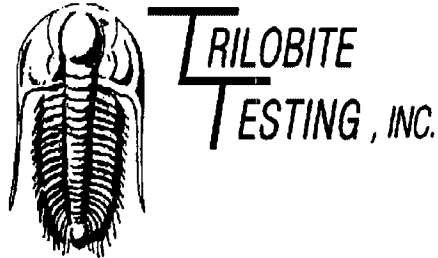
Flow Cycle: 2

### Log-Log and Pseudo-Derivative



### Log-Log and Pseudo-Derivative





## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary & Associates INC**

1515 Wynkoop  
STE 700  
Denver Co 80202

ATTN: Tom Fertal

**18-17s-15w Barton**

**Stos ET AL #1-18**

Start Date: 2010.06.30 @ 22:53:54

End Date: 2010.07.01 @ 06:02:14

Job Ticket #: 37239                      DST #: 3

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

Samuel Gary & Associates INC

Stos ET AL #1-18

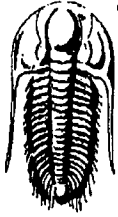
18-17s-15w Barton

DST # 3

Arbuckle

2010.06.30





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37239      **DST#: 3**  
Test Start: 2010.06.30 @ 22:53:54

## GENERAL INFORMATION:

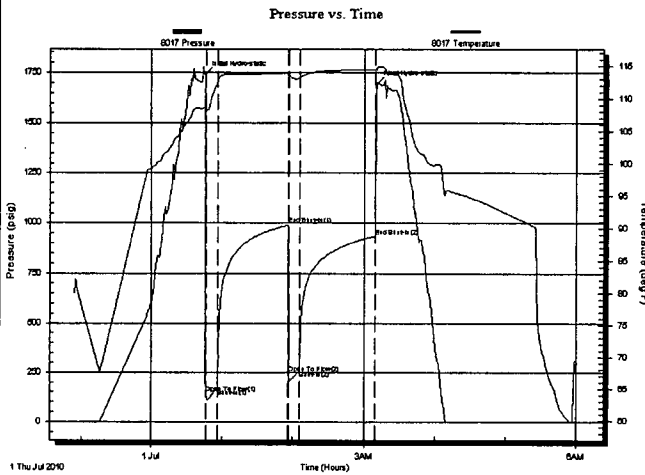
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole  
 Time Tool Opened: 00:46:14  
 Tester: Jeff Brown  
 Time Test Ended: 06:02:14  
 Unit No: 31  
 Interval: **3528.00 ft (KB) To 3578.00 ft (KB) (TVD)**  
 Reference Elevations: 2013.00 ft (KB)  
 Total Depth: 3578.00 ft (KB) (TVD)      2003.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 10.00 ft

## Serial #: 8017

Inside

Press@RunDepth: 258.63 psig @ 3535.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2010.06.30      End Date: 2010.07.01      Last Calib.: 2010.07.01  
 Start Time: 22:53:59      End Time: 06:02:14      Time On Btm: 2010.07.01 @ 00:45:54  
 Time Off Btm: 2010.07.01 @ 03:10:33

**TEST COMMENT:** IFP-Strong blow BOB in 1 1/2 min  
 ISI Strong blow back BOB in 24 min  
 FFP-Strong blow BOB in 1 min  
 FSI-Strong blow back BOB in 34 min



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1740.22	108.68	Initial Hydro-static
1	141.98	108.12	Open To Flow (1)
11	167.80	112.73	Shut-In(1)
71	990.44	113.87	End Shut-In(1)
71	242.94	113.53	Open To Flow (2)
80	258.63	113.19	Shut-In(2)
144	932.94	114.43	End Shut-In(2)
145	1692.85	114.52	Final Hydro-static

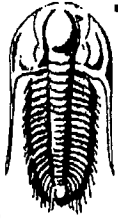
## Recovery

Length (ft)	Description	Volume (bbl)
252.00	Free Oil	3.53
189.00	MO10%MO90%O	2.65
189.00	HOCCGM50%O10%G40%M	2.65
0.00	504 GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37239      DST#: 3  
Test Start: 2010.06.30 @ 22:53:54

**Tool Information**

Drill Pipe:	Length: 3507.00 ft	Diameter: 3.80 inches	Volume: 49.19 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 49.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3528.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3500.00	
Shut In Tool	5.00			3505.00	
Hydraulic tool	5.00			3510.00	
Jars	5.00			3515.00	
Safety Joint	3.00			3518.00	
Packer	5.00			3523.00	29.00      Bottom Of Top Packer
Packer	5.00			3528.00	
Stubb	1.00			3529.00	
Perforations	5.00			3534.00	
Change Over Sub	1.00			3535.00	
Recorder	0.00	8017	Inside	3535.00	
Recorder	0.00	8352	Outside	3535.00	
Blank Spacing	31.00			3566.00	
Change Over Sub	1.00			3567.00	
Perforations	8.00			3575.00	
Bullnose	3.00			3578.00	50.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>79.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Samuel Gary & Associates INC

**Stos ET AL #1-18**

1515 Wynkoop  
STE 700  
Denver Co 80202  
ATTN: Tom Fertal

**18-17s-15w Barton**

Job Ticket: 37239      **DST#: 3**  
Test Start: 2010.06.30 @ 22:53:54

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API: 32 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4300.00 ppm		
Filter Cake: inches		

**Recovery Information**

Recovery Table

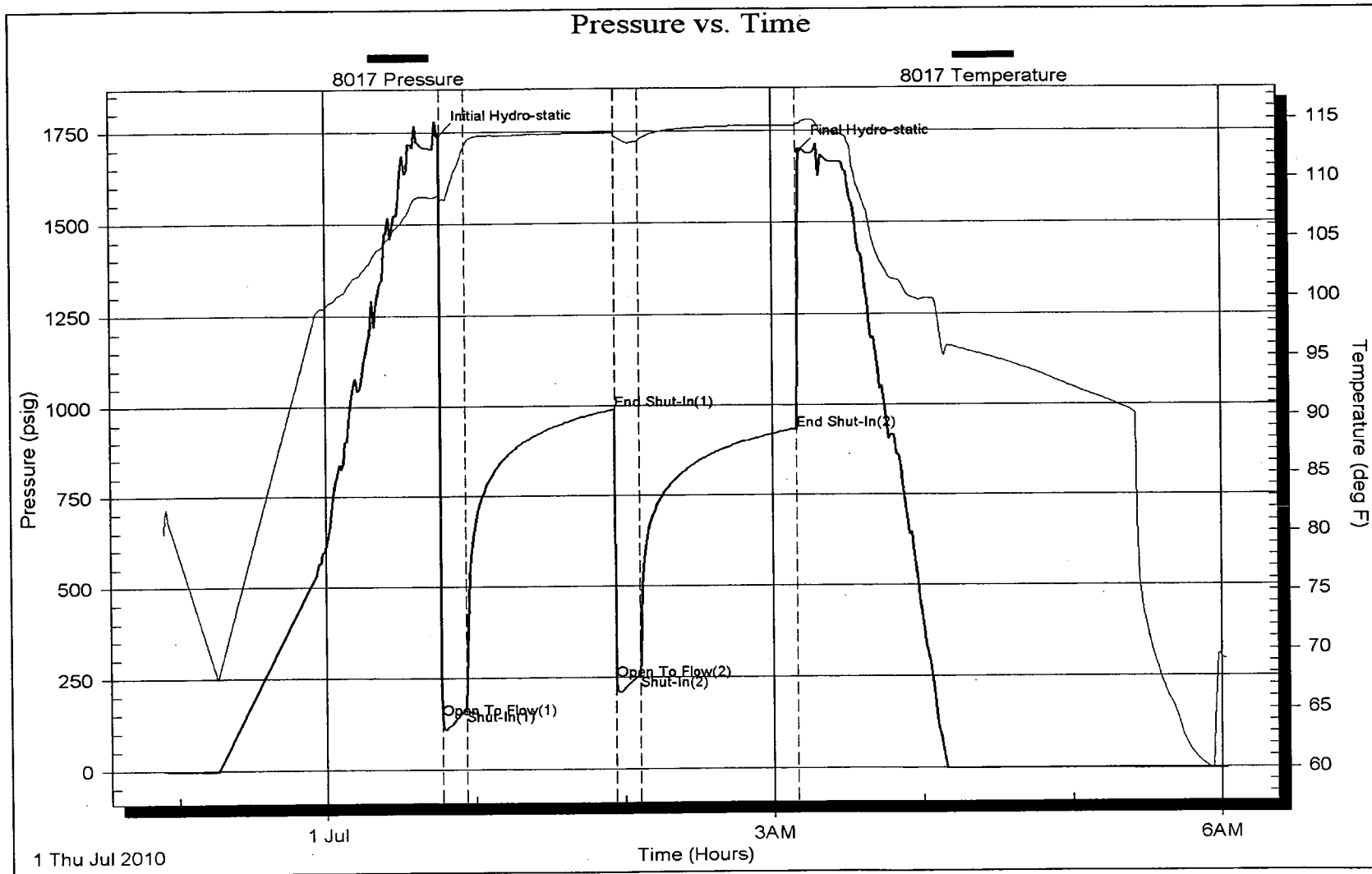
Length ft	Description	Volume bbl
252.00	Free Oil	3.535
189.00	MO10%MO0%O	2.651
189.00	HOCGM50%O10%G40%M	2.651
0.00	504 GIP	0.000

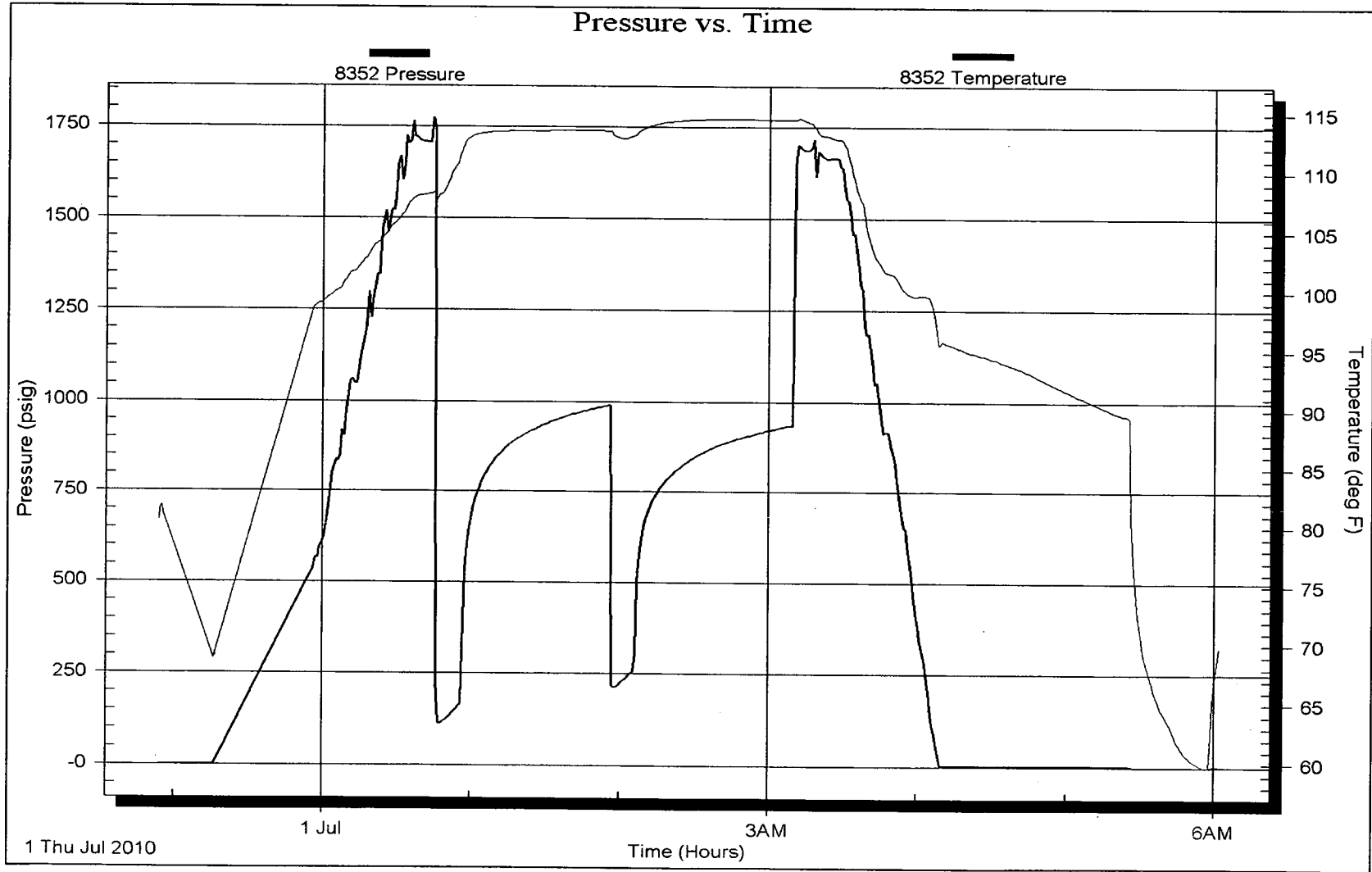
Total Length: 630.00 ft      Total Volume: 8.837 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

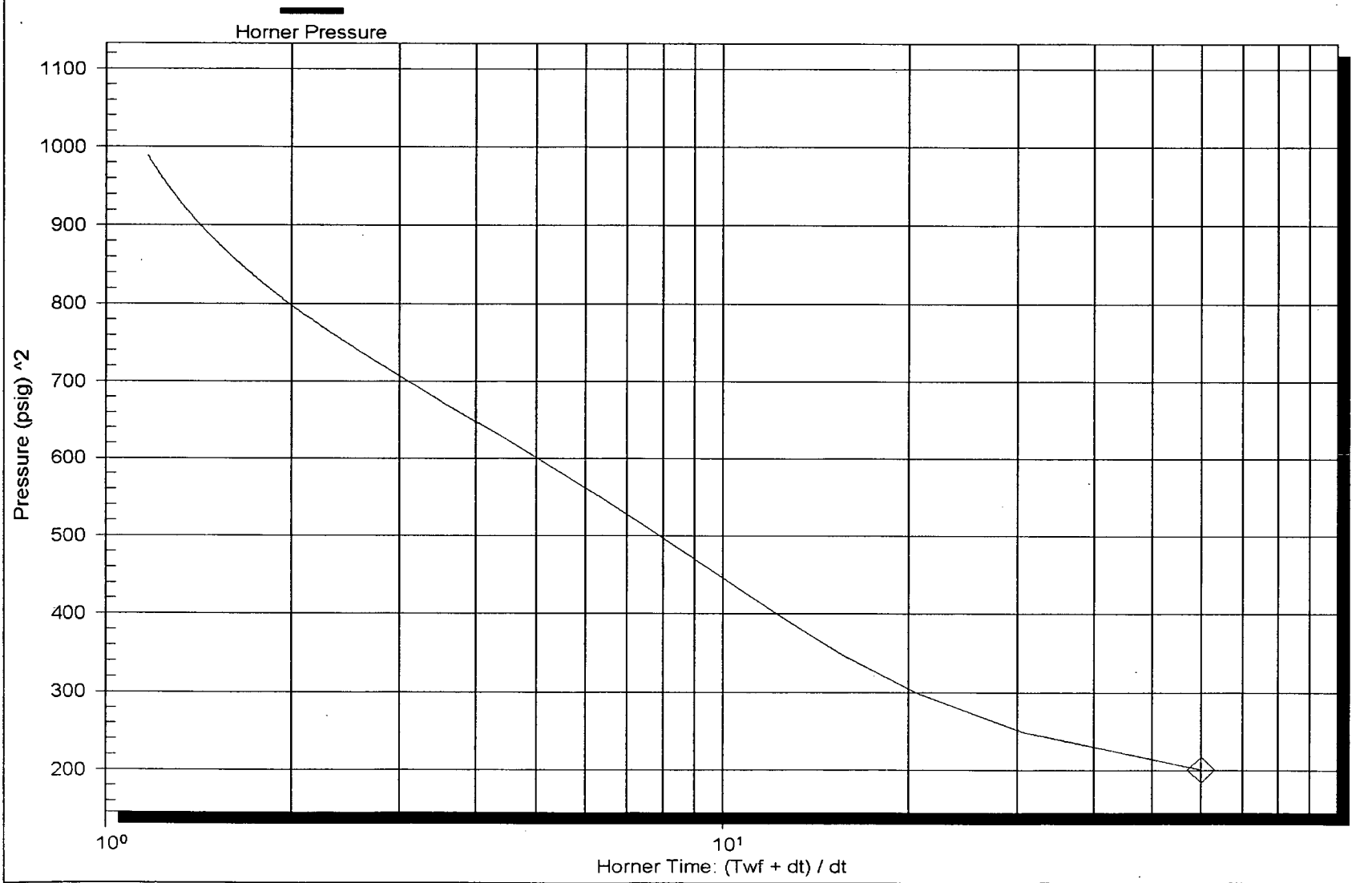
Laboratory Name:      Laboratory Location:

Recovery Comments:





### Horner Plot



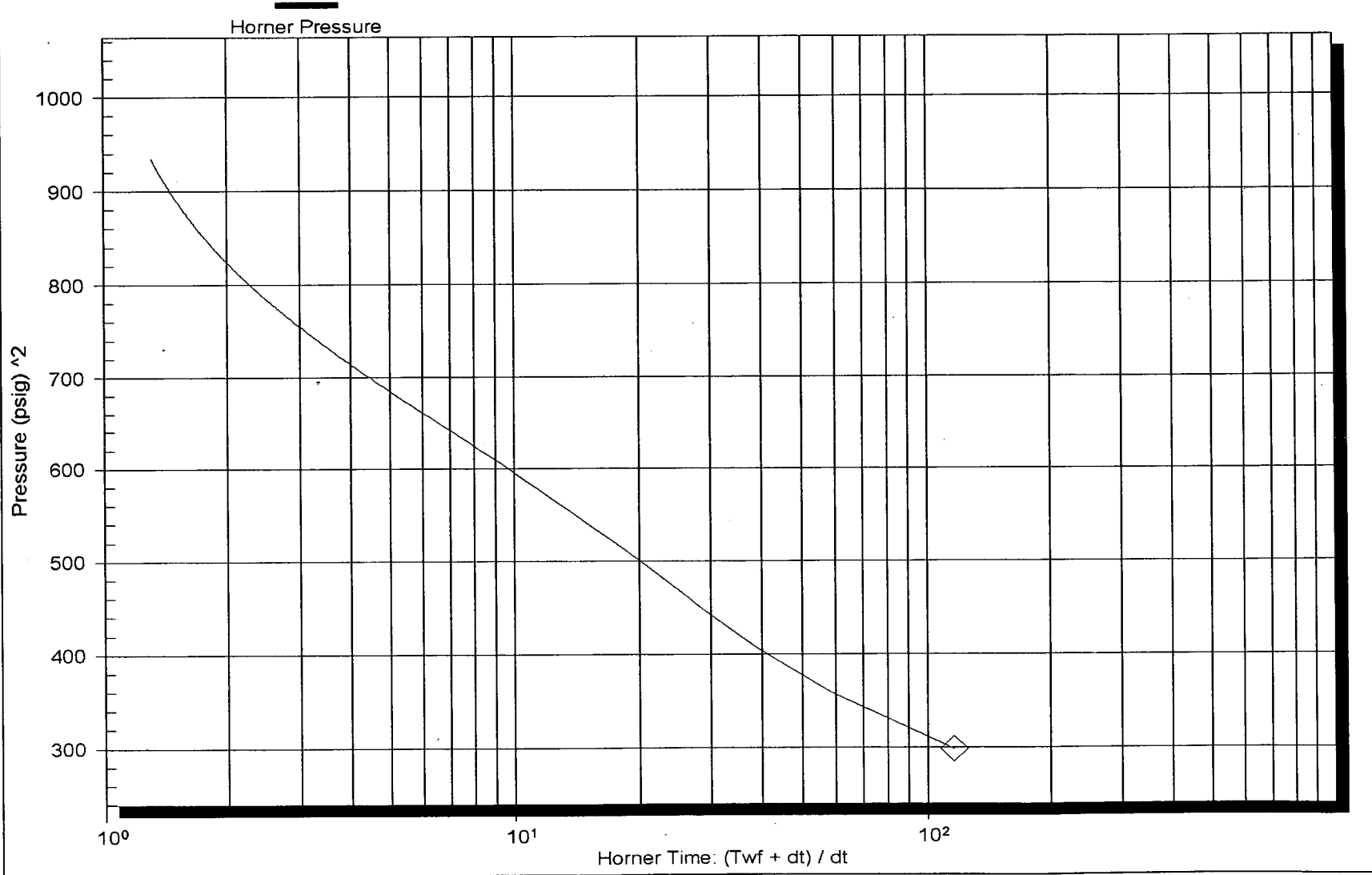
Serial Number: 8017 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

### Horner Plot



Serial Number: 8017 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 2



