KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1088559

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 # 33235
Name: Chieftain Oil Co., Inc.
Address 1: 101 S. 5th St.; PO Box 124
Address 2:
City: KIOWA State: KS Zip: 67070 + 1912
Contact Person: Ron Molz
Phone: (620) 825-4030
CONTRACTOR: License # 34233
Name: Maverick Drilling LLC
Wellsite Geologist: Arden Ratzlaff
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] 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 #:

06/13/2010	06/25/2010	07/31/2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-23544-00-00
Spot Description:
NW - SE - NE - SE Sec. 36 Twp. 34 S. R. 12 [ ] East [x] West
1857 Feet from [ ] North / [x] South Line of Section
627 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Barber
Lease Name: Yates A Well #: 3
Field Name:
Producing Formation: Mississippian
Elevation: Ground: 1365 Kelly Bushing: 1374
Total Depth: 5411 Plug Back Total Depth: 5362
Amount of Surface Pipe Set and Cemented at: 340 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 10000 ppm Fluid volume: 1200 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Molz Oil Co., Inc.
Lease Name: Garner SWD License #: 6006
Quarter NW Sec. 11 Twp. 33 S. R. 10 [ ] East [x] West
County: Barber Permit #: D-28060

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:
- [ ] Confidential Release Date:
- [x] Wireline Log Received
- [x] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: Deanna Garrisor Date: 08/07/2012

Side Two

1088559

Operator Name: Chieftain Oil Co., Inc. Lease Name: Yates A Well #: 3

Sec. 36 Twp. 34 S. R. 12 ☐ East ☑ West County: Barber

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 Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
Surface	17.25	13.375	24	305	60/40 Poz	340	2% Salt
Production	7.875	5.5	15.5	5408	Common	200	Gas Block 2% Salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

Shots Per Foot	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
4	4710-4750	1500 Gal. 7-1/2% HCL Acid	4710-4750
		1500 Gal. 15% HCL Acid	4710-4750
		Frac 25,000 BBLS Slickwater	
		411,000# Sand	

TUBING RECORD: Size: 2-7/8 Set At: 4800 Packer At:

Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR.

Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Yates A 3
Doc ID	1088559

All Electric Logs Run

Geologist Log
Compensated Density/Neutron PE Log
Dual Induction Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Yates A 3
Doc ID	1088559

Tops

Name	Top	Datum
Heebner	3765	-2391
Stark	4444	-3070
Base Kansas City	4508	-3134
Cherokee	4663	-3289
Mississippian	4709	-3335
Kinderhook	4960	-3586
Viola	5120	-3746
Simpson	5210	-3836
Simpson Sand	5228	-3854
Total Depth	5411	-4037

BASIC ENERGY SERVICES

PAGE	CUST NO	INVOICE DATE
1 of 1	1000719	06/29/2010

INVOICE NUMBER

1718 - 90347956

Pratt (620) 672-1201

BILL TO
CHIEFTAIN OIL COMPANY
PO Box: 124
KIOWA
KS US 67070
ATTN:

JOB SITE
LEASE NAME: Yates A 3
LOCATION:
COUNTY: Barber
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40199908	19905		Net - 30 days	07/29/2010

For Service Dates: 06/27/2010 to 06/27/2010

0040199908

171802204A Cement-New Well Casing/Pi 06/27/
Longstring

ENTERED
JUL 06 2010
912BC

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
AA2 Cement	200.00	EA	10.37	2,073.90 T
60/40 POZ	50.00	EA	7.32	365.98 T
De-foamer (Powder)	38.00	EA	2.44	92.72 T
Salt (Fine)	990.00	EA	0.30	301.94 T
Gas-Blok	188.00	EA	3.14	590.57 T
FLA-322	151.00	EA	4.57	690.79 T
Gilsonite	1,000.00	EA	0.41	408.68 T
Latch Down Plug & Baffle, 5 1/2" (Blue)	1.00	EA	243.99	243.99
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	219.59	219.59
Turbolizer, 5 1/2" (Blue)	7.00	EA	67.10	469.68
5 1/2" Basket (Blue)	2.00	EA	176.89	353.78
CS-1L KCL Substitute	5.00	EA	21.35	106.74 T
Mud Flush	500.00	EA	0.52	262.29 T
Super Flush II	500.00	EA	0.93	466.63 T
Unit Mileage Charge-Pickups, Vans & Cars	50.00	HR	2.59	129.62
Heavy Equipment Mileage	100.00	MI	4.27	426.98
Proppant and Bulk Delivery Charges	578.00	MI	0.98	564.10
Depth Charge; 5001-6000'	1.00	HR	1,756.71	1,756.71
Blending & Mixing Service Charge	250.00	MI	0.85	213.49
Plug Container Utilization Charge	1.00	EA	152.49	152.49
Service Supervisor	1.00	HR	106.74	106.74

PLEASE REMIT TO:
BASIC ENERGY SERVICES,LP
PO BOX 841903
DALLAS,TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES,LP
PO BOX 10460
MIDLAND,TX 79702

SUB TOTAL	9,997.41
TAX	337.70
INVOICE TOTAL	10,335.11

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET

1718 02204 A

36-34S-12W

DATE TICKET NO.

DATE OF JOB 6-27-10 DISTRICT Pratt, Kansas	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Chieftain Oil Company, Inc.	LEASE Yates "A" WELL NO. 3
ADDRESS	COUNTY Barber STATE Kansas
CITY STATE	SERVICE CREW C. Messick; M. Mattal; E Coleman
AUTHORIZED BY	JOB TYPE: C.N.W. - Longstring

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19,866	7.5				
19,903-19,905	7.5				
19,821-19,808	7.5				

TRUCK CALLED	6-26-10	AM/PM	6:00
ARRIVED AT JOB	6-26-10	AM/PM	8:30
START OPERATION	6-27-10	AM/PM	3:30
FINISH OPERATION	6-27-10	AM/PM	4:15
RELEASED	6-27-10	AM/PM	5:00
MILES FROM STATION TO WELL	50		

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
P CP 105	AA 2 Cement	Sk	200		$ 3,400 00
P CP 103	60/40 Poz Cement	Sk	50		$ 600 00
P CC 105	Defoamer	Lb	38		$ 152 00
P CC 111	Salt (Fine)	Lb	990		$ 495 00
P CC 115	Gas Blok	Lb	188		$ 968 20
P CC 129	FLA-322	Lb	151		$ 1,132 50
P CC 201	Gilsonite	Lb	1,000		$ 630 00
P CF 607	Latch Down Plug and Baffle, 5½"	ea	1		$ 400 00
P CF 1251	Auto Fill Float Shoe, 5½"	ea	1		$ 360 00
P CF 1651	Turbolizer, 5½"	ea	7		$ 770 00
P CF 1901	Basket, 5½"	ea	2		$ 580 00
P C 704	CS-1L HCL	Gal	5		$ 175 00
P C 6151	Mud Flush	Gal	500		$ 430 00
P CC 155	Super Flush II	Gal	500		$ 765 00
				SUB TOTAL	DLS

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

COUNTERED - Amarillo, TX

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET

1718 ~~02205~~ A
Continuation

36-34S-12W

DATE TICKET NO. 2204

DATE OF JOB 6-27-10 DISTRICT Pratt, Kansas	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Chieftain Oil Company, Inc.	LEASE Yates "A" WELL NO. 3
ADDRESS	COUNTY Barber STATE Kansas
CITY STATE	SERVICE CREW C. Messick: M. Mattal: E. Coleman
AUTHORIZED BY	JOB TYPE: C.N.W. - Longstring

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS

	DATE	AM/PM	TIME
TRUCK CALLED		AM PM	
ARRIVED AT JOB		AM PM	
START OPERATION		AM PM	
FINISH OPERATION		AM PM	
RELEASED		AM PM	
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: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
P E 100	Pickup Mileage	mi	50		$ 212 50
P E 101	Heavy Equipment Mileage	mi	100		$ 700 00
P E 113	Bulk Delivery	tm	578		$ 924 00
P CE 206	Cement Pump: 5,001 Feet To 6,000 Feet	Job	1		$ 2,880 00
P CE 240	Blending and Mixing Service	sk	250		$ 350 00
P CE 504	Plug Container	Job	1		$ 250 00
P 5003	Service Supervisor	Job	1		$ 175 00

CHEMICAL / ACID DATA:

SUB TOTAL $ 9,997 41

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

SERVICE REPRESENTATIVE Terrance R. Mandel

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

TREATMENT REPORT

Customer: Chieftain Oil Company, Inc.	Lease No.		Date: 6-27-10		
Lease: Yates "A"	Well #: 3				
Field Order #: 2,204	Station: Pratt, Kansas	Casing: 5½ 15.5 Lb.	Depth: 5,408 Feet	County: Barber	State: Kansas
Type Job: C.N.W. - Longstring		Formation:		Legal Description: 36-34S-12W	

PIPE DATA		PERFORATING DATA		USED	TREATMENT RESUME		
Casing Size: 5½ 15.5 Lb/Ft.	Tubing Size:	Shots/Ft		200 sacks AA-2 with .2% Defoamer, .8% FLA-322, 18 Gas Blok, 5 Lb./Sk. Gilsonite, 5 Lb./Gal., 6.23 Gal./Sk., 1.44 CU.FT./SK. Cement	RATE	PRESS	ISIP:
Depth: 5,408 Feet	Depth:	From	To		Max:		5 Min.
Volume: 128.7 Bbl.	Volume:	From	To		Min:		10 Min.
Max Press: 1500	Max Press:	From	To		Avg		15 Min.
Well Connection: Plug Container	Annulus Vol.	From	To	50 sacks 60/40 Poz to Plug Rat (30 sks) and Mouse (20 sks.) hole.	HHP Used:		Annulus Pressure
Plug Depth: 5,366 Feet	Packer Depth:	From	To	Flush: 127.7 Bbl. 2% KCL	Gas Volume:		Total Load

Customer Representative: Rob Raleigh — Station Manager: David Scott — Treater: Clarence R. Messick

Service Units	19,866	19,903	19,905	19,831	19,908						
Driver Names	Messick	Mattal		Coleman							
Time P.M.	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log						
8:30					Trucks on location and hold safety meeting.						
10:30					Maverick Drilling start to run Auto Fill Float Shoe, Shoe Joint with Latch Down Baffle screwed into collar and a total of 129 Joints new 15.5 Lb./Ft. 5½" Casing. Ivibolizers were installed on collars # 4, 7, 14, 16, 17, 19 and # 21. A Basket was installed above Collars # 2 and # 13.						
2:30					Casing in well. Circulate for 1 hour.						
3:35	400		20	6	Start Fresh water Pre-Flush.						
	400		32	6	Start Mud Flush.						
	425		37	6	Start Fresh water spacer.						
	450		49	6	Start Super Flush II.						
	500		52	5	Start Fresh water spacer						
3:45	500		103	5	Start mixing 200 sacks AA2 cement.						
	-0-				Stop pumping. Shut in well. Wash pump and lines. Release ~~Top~~ Latch Down Plug. Open Well.						
3:58	100			6.5	Start 2% KCL Displacement.						
			97	5	Start to lift cement.						
4:17	800		127.7		Plug down.						
					Pressure up.						
					Release pressure. Float Shoe held.						
	-0-		7.5	3	Plug Rat (30 sks) and Mouse (20 sks.) holes.						
					Wash up pump truck.						
5:00					Job Complete.						

BASIC ENERGY SERVICES

PAGE	CUST NO	INVOICE DATE
1 of 1	1000719	06/14/2010

INVOICE NUMBER
1718 - 90337525

Pratt (620) 672-1201

BILL TO
CHIEFTAIN OIL COMPANY
PO Box: 124
KIOWA
KS US 67070
ATTN:

JOB SITE
LEASE NAME: Yates A-3
LOCATION:
COUNTY: Barber
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40194348	20920		Net - 30 days	07/14/2010

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 06/13/2010 to 06/13/2010				
0040194348				
171802131A Cement-New Well Casing/Pi 06/13/2010				
CNW-Conductor				
Cement	340.00	EA	5.40	1,835.85 T
60/40 POZ				
Additives	85.00	EA	1.66	141.51 T
Cello-flake				
Calcium Chloride	879.00	EA	0.47	415.29 T
Calcium Chloride				
Mileage	100.00	MI	3.15	314.97
Heavy Equipment Mileage				
Mileage	733.00	MI	0.72	527.71
Proppant & Bulk Delivery Charges				
Mileage	340.00	MI	0.63	214.18
Blending & Mixing Service Charge				
Pickup	50.00	HR	1.91	95.62
Unit Mileage Charge-Pickups, Vans & Cars				
Pump Charge-Hourly	1.00	HR	449.96	449.96
Depth Charge; 0-500'				
Supervisor	1.00	HR	78.74	78.74
Service Supervisor				

ENTERED
JUN 17 2010
9121 BL

PLEASE REMIT TO:
BASIC ENERGY SERVICES, LP
PO BOX 841903
DALLAS, TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES, LP
PO BOX 10460
MIDLAND, TX 79702

SUB TOTAL	4,073.83
TAX	150.74
INVOICE TOTAL	4,224.57

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET

1718 02131 A

DATE TICKET NO.

DATE OF JOB 06-13-10 DISTRICT PRATT	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Chieftain O.L	LEASE YATES A 3 WELL NO.
ADDRESS	COUNTY BARBER STATE KS
CITY STATE	SERVICE CREW Sullivan, Mckay, NALL
AUTHORIZED BY	JOB TYPE: CNW CONVERT 13 3/8

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
19959/20510	35				
19832/21010	35				
19867					

	DATE		TIME
TRUCK CALLED	06-13-10	AM PM	1030
ARRIVED AT JOB	06-13-10	AM PM	1130
START OPERATION		AM PM	1830
FINISH OPERATION		AM PM	1705
RELEASED	06-13-10	AM PM	1730
MILES FROM STATION TO WELL			50

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
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SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP 103	60/40 poz	SK	340		4080 00
CC 102	Cello-flake	lb	85		314 50
CC 109	Calcium chloride	lb	879		922 95
E 100	Pickup mileage	mi	50		212 50
E 101	Heavy Equip mileage	mi	200		700 00
E 113	Bulk Delivery	TM	733		1,172 00
CE 200	Depth Charge 0-500'	ea	1		1,000 00
CE 240	Blending & mixing charge	SK	340		476 00
S 003	Service Supervisor	EA	1		175 00

SUB TOTAL

CHEMICAL / ACID DATA:			

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

Thank you

TOTAL 4,073 83

SERVICE REPRESENTATIVE Robert Sullivan

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: _____
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer: Chieftain Oil	Lease No.		Date: 06-13-10
Lease: Yates	Well #: A-3		
Field Order #: 21317	Station: Pratt	Casing: 13 3/8 Depth: 305	County: Barber State: KS
Type Job: Conductor	Formation		Legal Description: 36 34 12

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 13 3/8	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth: 298.85	Depth	From	To	Pre Pad	Max		5 Min.
Volume: 45 1/2	Volume	From	To	Pad	Min		10 Min.
Max Press: 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection: PC	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth: 271	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative				Station Manager: Dave Scott		Treater: Robert Johnson					
Service Units	19867	19959	20920	19832	21010						
Driver Names	Sullivan	Mckay		NALL							

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1430					On loc Safety Meeting
					Run 6 JTS 13 3/8 48# CSG
1615					Casing on Bottom
1620					Hook Rig To Circ.
1830	100			5.5	St mixing Cmt
			76		Cmt Mixed
				4	St Disp
1905	200		45 1/2		Plug Down
					Circulated 12 BBL Cmt To Pit
					Job Complete
					Thank you

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

DRILL STEM TEST REPORT

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36915 **DST#: 1**

Test Start: 2010.06.21 @ 14:52:05

GENERAL INFORMATION:

Formation: **Mlsener**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:56:35
Time Test Ended: 00:21:35

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

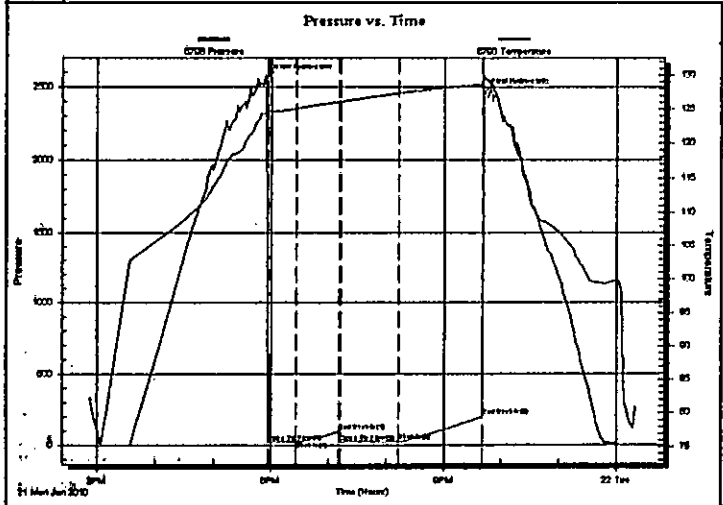
Interval: 5054.00 ft (KB) To 5084.00 ft (KB) (TVD)
Total Depth: 5084.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1374.00 ft (KB)
1365.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 23.36 psig @ 5055.00 ft (KB)
Start Date: 2010.06.21 End Date: 2010.06.22
Start Time: 14:52:06 End Time: 00:21:35

Capacity: 8000.00 psig
Last Calib.: 2010.06.22
Time On Btm: 2010.06.21 @ 17:55:05
Time Off Btm: 2010.06.21 @ 21:42:05

TEST COMMENT: IF:Weak blow . Built to 4 3/4".
ISI:No blow .
FF:Weakblow . Built to 3".
FSI:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2558.42	124.74	Initial Hydro-static
2	21.88	124.68	Open To Flow (1)
31	24.83	125.09	Shut-In(1)
76	94.27	126.07	End Shut-In(1)
78	21.45	126.07	Open To Flow (2)
139	23.36	127.35	Shut-In(2)
226	198.85	128.64	End Shut-In(2)
227	2457.59	129.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	2%g 98%m	0.21
0.00	50' GIP	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36915 **DST#: 1**

Test Start: 2010.06.21 @ 14:52:05

Tool Information

Drill Pipe:	Length:	5039.00 ft	Diameter:	3.80 inches	Volume:	70.68 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	90000.00 lb
					Total Volume:	70.68 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		8.00 ft					String Weight: Initial	80000.00 lb
Depth to Top Packer:		5054.00 ft					Final	80000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		30.00 ft						
Tool Length:		53.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			5036.00		
Hydraulic tool	5.00			5041.00		
Safety Joint	3.00			5044.00		
Packer	5.00			5049.00	23.00	Bottom Of Top Packer
Packer	5.00			5054.00		
Stubb	1.00			5055.00		
Recorder	0.00	6798	Inside	5055.00		
Recorder	0.00	8367	Inside	5055.00		
Perforations	26.00			5081.00		
Bullnose	3.00			5084.00	30.00	Bottom Packers & Anchor
Total Tool Length:	**53.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36915 **DST#: 1**

Test Start: 2010.06.21 @ 14:52:05

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:	78.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.37 in³	Gas Cushion Type:			
Resistivity:	0.00 ohmm	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.21 inches				

Recovery Information

Recovery Table

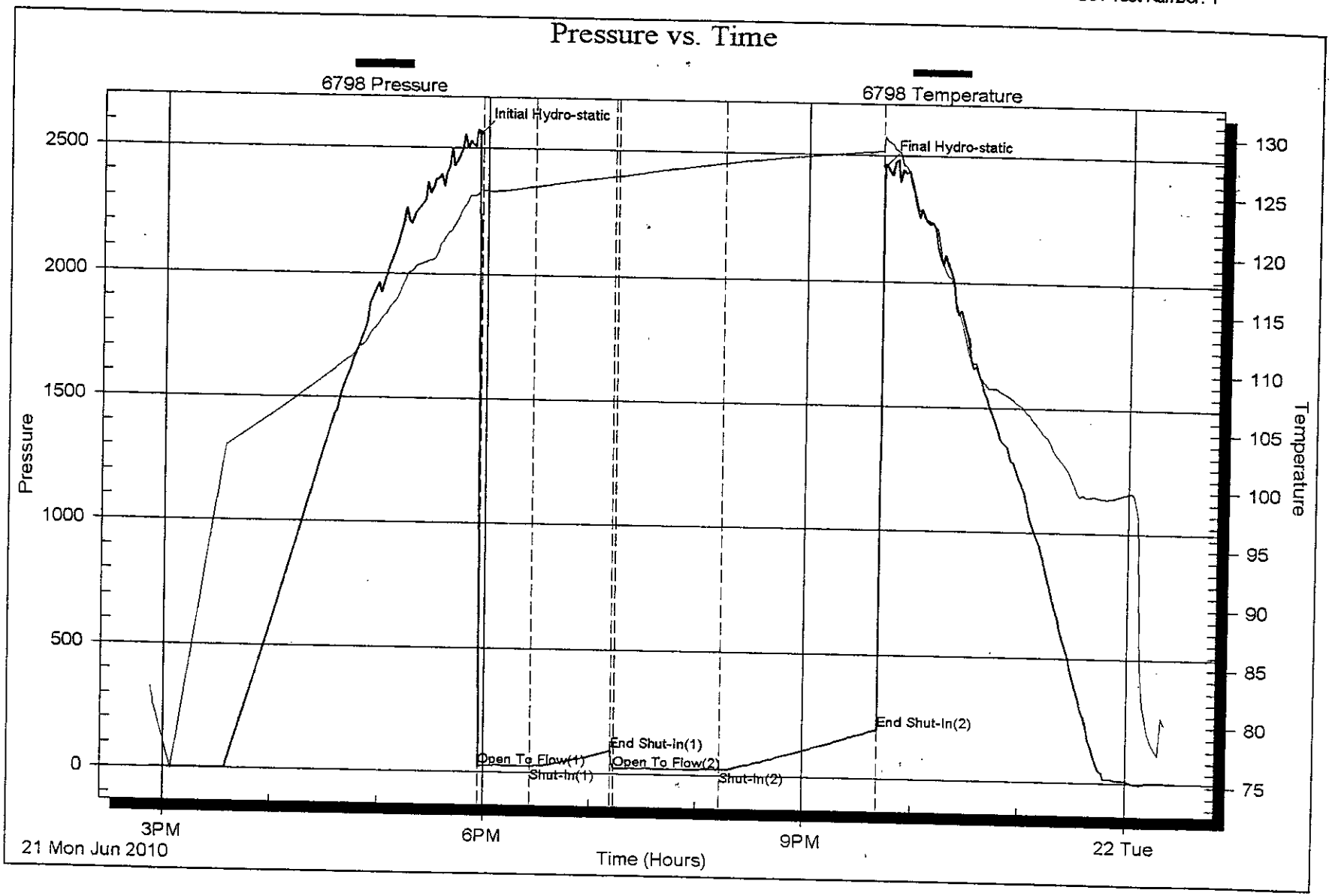
Length ft	Description	Volume bbl
15.00	2%g 98%m	0.210
0.00	50' GIP	0.000

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2500
2000
1500
1000
500
0
130
125
120
115
110
105
100
95
90
85
80
75
3PM
6PM
9PM
22 Tue
21 Mon Jun 2010
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36916 DST#: 2

Test Start: 2010.06.22 @ 23:02:11

GENERAL INFORMATION:

Formation: **Simpson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:02:41
Time Test Ended: 08:49:41

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

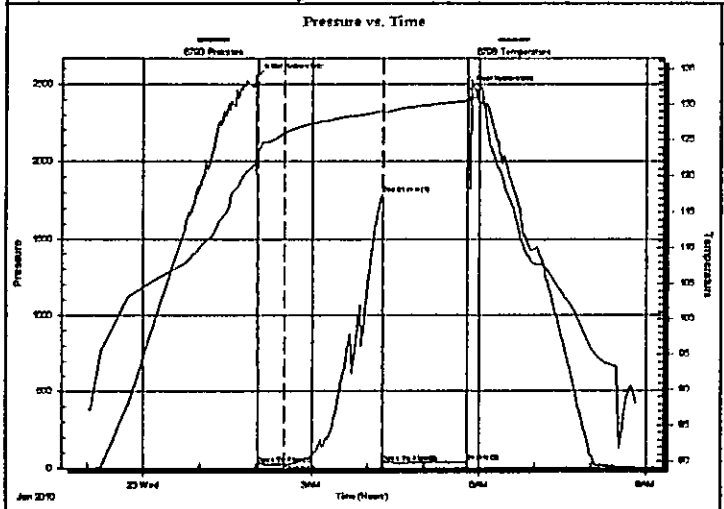
Interval: 5179.00 ft (KB) To 5216.00 ft (KB) (TVD)
Total Depth: 5216.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1374.00 ft (KB)
1365.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 24.67 psig @ 5180.00 ft (KB)
Start Date: 2010.06.22 End Date: 2010.06.23
Start Time: 23:02:12 End Time: 08:49:41

Capacity: 8000.00 psig
Last Calib.: 2010.06.23
Time On Btm: 2010.06.23 @ 02:00:41
Time Off Btm: 2010.06.23 @ 05:47:41

TEST COMMENT: IF:Fair blow. Built to 11".
ISI:Fair blow. B.O.B. in 39 mins.
FF:Weak blow. Steady at 1".
FSI:Strong blow. B.O.B. immediately.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2544.45	121.86	Initial Hydro-static
2	26.94	123.15	Open To Flow (1)
30	24.67	125.94	Shut-In(1)
135	1788.65	128.94	End Shut-In(1)
136	31.83	128.66	Open To Flow (2)
226	35.39	130.42	Shut-In(2)
227	2460.55	133.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	SGCOilyMud 12%g 37%o 51%m	0.63
0.00	2495' GIP	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36916 **DST#: 2**

Test Start: 2010.06.22 @ 23:02:11

Tool Information

Drill Pipe:	Length:	5164.00 ft	Diameter:	3.80 inches	Volume:	72.44 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	72.44 bbl	

Drill Pipe Above KB:	8.00 ft
Depth to Top Packer:	5179.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	37.00 ft
Tool Length:	60.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	120000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	82000.00 lb
Final	82000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			5161.00		
Hydraulic tool	5.00			5166.00		
Safety Joint	3.00			5169.00		
Packer	5.00			5174.00	23.00	Bottom Of Top Packer
Packer	5.00			5179.00		
Stubb	1.00			5180.00		
Recorder	0.00	6798	Inside	5180.00		
Recorder	0.00	8367	Inside	5180.00		
Perforations	33.00			5213.00		
Bullnose	3.00			5216.00	37.00	Bottom Packers & Anchor
Total Tool Length:	**60.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36916 **DST#: 2**

Test Start: 2010.06.22 @ 23:02:11

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohmm	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	0.21 inches				

Recovery Information

Recovery Table

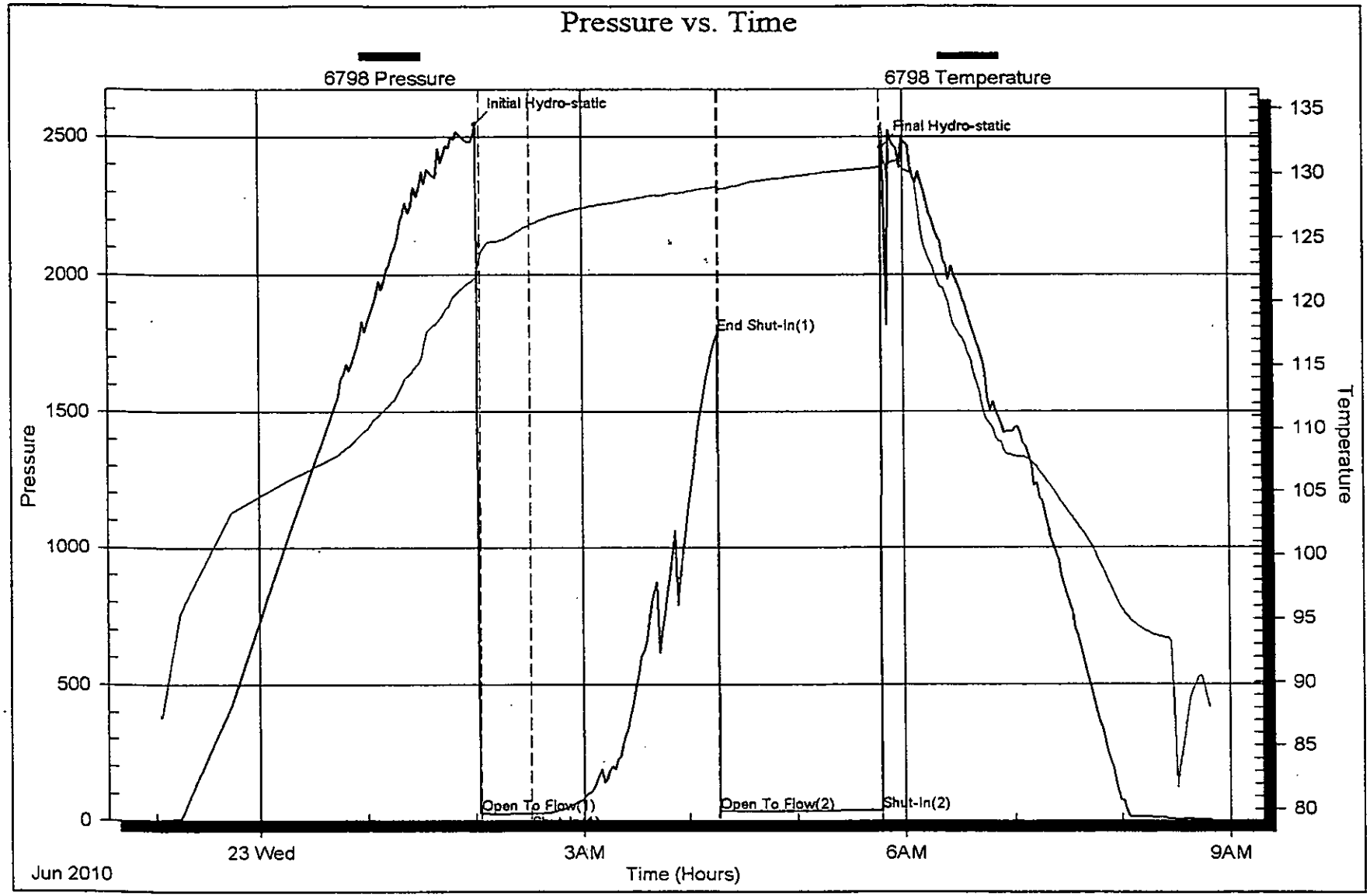
Length ft	Description	Volume bbl
45.00	SGCOilyMud 12%g 37%o 51%m	0.631
0.00	2495' GIP	0.000

Total Length: 45.00 ft Total Volume: 0.631 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2500
2000
1500
1000
500
0
135
130
125
120
115
110
105
100
95
90
85
80
23 Wed
3AM
6AM
9AM
Jun 2010
Time (Hours)

DRILL STEM TEST REPORT

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36917 **DST#: 3**

Test Start: 2010.06.23 @ 21:29:39

GENERAL INFORMATION:

Formation: **Simpson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:35:09
Time Test Ended: 08:07:09

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

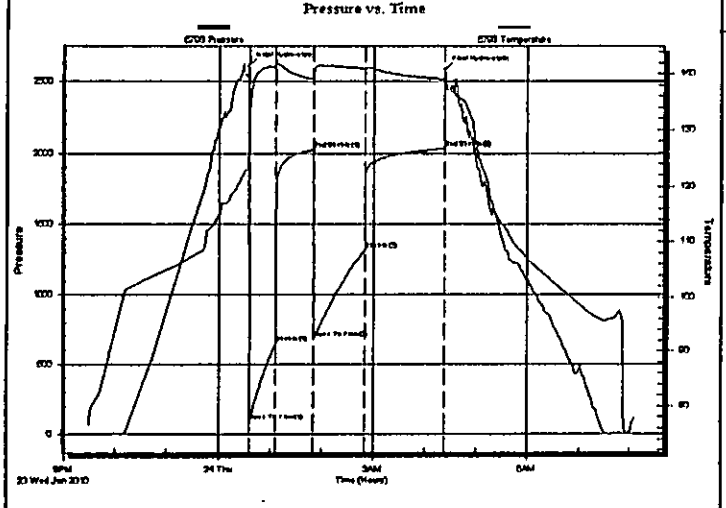
Interval: 5225.00 ft (KB) To 5238.00 ft (KB) (TVD)
Total Depth: 5238.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1374.00 ft (KB)
1365.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 1315.75 psig @ 5226.00 ft (KB)
Start Date: 2010.06.23 End Date: 2010.06.24
Start Time: 21:29:40 End Time: 08:07:09

Capacity: 8000.00 psig
Last Calib.: 2010.06.24
Time On Btm: 2010.06.24 @ 00:33:39
Time Off Btm: 2010.06.24 @ 04:23:09

TEST COMMENT: IF:Strong blow . B.O.B. in 2 mins.
ISI:Weak blow . Built to 5", decreased to 3".
FF:Strong blow . B.O.B. in 3 mins.
FSI:Weak blow . Built to 2".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2608.65	122.97	Initial Hydro-static
2	91.82	127.82	Open To Flow (1)
32	646.17	141.36	Shut-In(1)
77	2024.62	139.04	End Shut-In(1)
78	683.53	139.85	Open To Flow (2)
137	1315.75	140.93	Shut-In(2)
229	2032.07	138.99	End Shut-In(2)
230	2585.27	137.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Drilling Mud 100%m	1.40
340.00	MCW 80%w 20%m	4.77
2780.00	SMCW 95%w 5%m	39.00
0.00	RW = .085 @ 90 deg.	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36917 **DST#: 3**

Test Start: 2010.06.23 @ 21:29:39

Tool Information

Drill Pipe:	Length:	5226.00 ft	Diameter:	3.80 inches	Volume:	73.31 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	73.31 bbl	

Drill Pipe Above KB:	24.00 ft
Depth to Top Packer:	5225.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	13.00 ft
Tool Length:	36.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	100000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	82000.00 lb
Final	92000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			5207.00		
Hydraulic tool	5.00			5212.00		
Safety Joint	3.00			5215.00		
Packer	5.00			5220.00	23.00	Bottom Of Top Packer
Packer	5.00			5225.00		
Stubb	1.00			5226.00		
Recorder	0.00	6798	Inside	5226.00		
Recorder	0.00	8367	Inside	5226.00		
Perforations	9.00			5235.00		
Bullnose	3.00			5238.00	13.00	Bottom Packers & Anchor
Total Tool Length:	**36.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Company, Inc.

P.O.Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Yates A #3

36-34s-12w Barber KS

Job Ticket: 36917 **DST#: 3**

Test Start: 2010.06.23 @ 21:29:39

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:	80000 ppm
Viscosity:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.96 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm m	Gas Cushion Pressure:	psig		
Salinity:	5500.00 ppm				
Filter Cake:	0.21 inches				

Recovery Information

Recovery Table

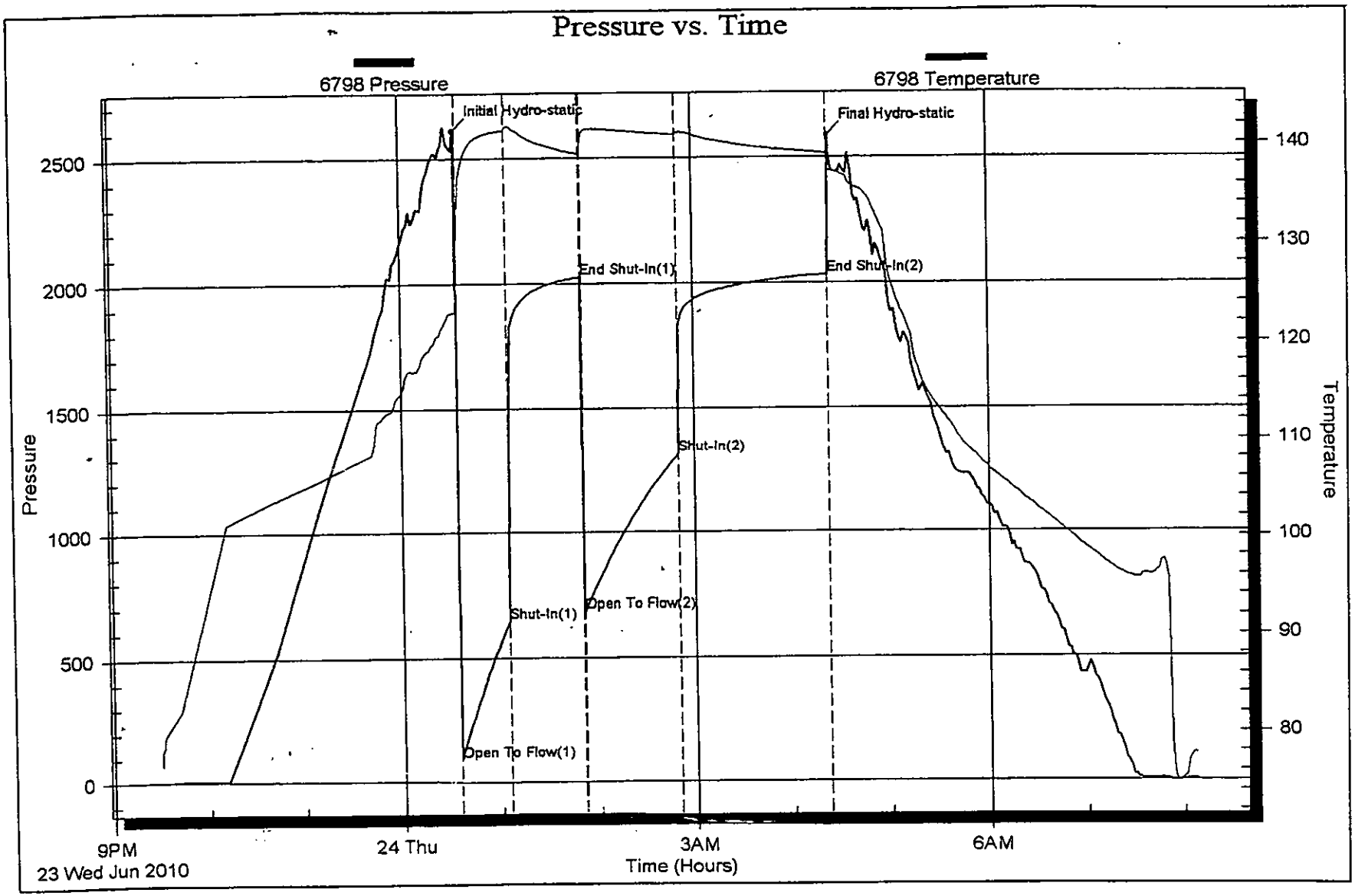
Length ft	Description	Volume bbl
100.00	Drilling Mud 100%m	1.403
340.00	MCW 80%w 20%m	4.769
2780.00	SMCW 95%w 5%m	38.996
0.00	RW = .085 @ 90 deg.	0.000

Total Length: 3220.00 ft Total Volume: 45.168 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
2500
2000
1500
1000
500
0
140
130
120
110
100
90
80
9PM
23 Wed Jun 2010
24 Thu
3AM
6AM
Time (Hours)

Arden Ratzlaff

PETROLEUM GEOLOGIST

Phone 262-8938

157 N. Market 808 Bitting Bldg. Wichita, KS 67202

DRILLING TIME AND SAMPLE LOG

COMPANY CHIEFTAIN OIL CO., INC.

LEASE YATES 'A' No. 3

FIELD STRANATHAN

LOCATION NW SE NE SE

SECTION 36 TOWNSHIP 34S RANGE 12W

COUNTY BARBER STATE KANSAS

CONTRACTOR MAVERICK DRILLING RIG NO. 106

COMMENCED DRILLING 6-13-10

COMPLETED DRILLING 6-25-10

STD. 5,810 FEET LTD FEET

MUD UP AT 4000 FEET MUD TYPE CHEMICAL

ELEVATIONS

KB 1374

DF 1372

GL 1365

Measurements Are All From K.B.

CASING

13¾" @ 305' W. 240 SX.

5½" @ 5406' W. 200 SX.

ELECTRICAL SURVEYS

SCHLUMBERGER-GAMMA RAY/DUAL INDUCTION LATEROLOG COMPENSATED NEUTRON/FORMATION DENSITY, S.P. & CALIPER

ELECTRIC LOG

FORMATION TOPS	SAMPLE	
CHEROKEE	3764 (-2390)	3765 (-2391)
SEVIER	4448 (-3074)	4444 (-3070)
UPPER KANSAS CITY	4512 (-3138)	4508 (-3134)
CHEROKEE	4644 (-3270)	4643 (-3269)
MISSISSIPPIAN	4711 (-3337)	4709 (-3335)
KINDERHOOK	4962 (-3588)	4960 (-3586)
VIOLA	5124 (-3750)	5120 (-3746)
SIMPSON	5205 (-3831)	5210 (-3836)
SIMPSON SAND	5224 (-3850)	5228 (-3854)
TOTAL DEPTH	5410 (-4036)	5411 (-4037)

REMARKS AFTER ANALYZING THE DRILLING MUD, ESPECIALLY THE HYDRO CARBON "SHOWS" & THE HISTORY OF PRODUCTION IN THE AREA. IT WAS DECIDED THAT CASING BE CEMENTED IN EXPECTANCE OF COMMERCIAL PRODUCTION.

Arden Ratzlaff, Petroleum Geologist

NOTE! NATIVE AMERICAN FURNISHED THE MUD ~ TRILOBITE THE DRILL STEM TESTS ~ SAMPLES DEPOSITED AT THE K.G.S. SURVEY.

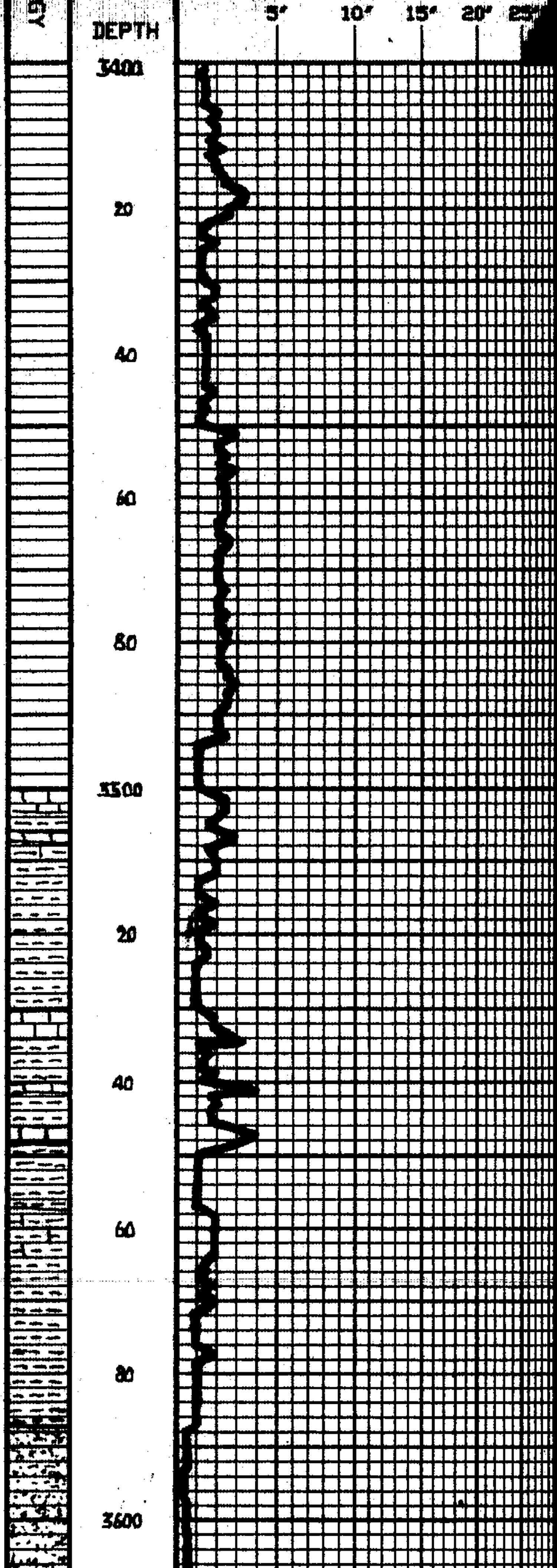
LEGEND

Anhydrite | Salt | Sandstone | Shale | Carb sh | Limestone | Dol.Lime | Chert | Dolomite

LITHOLOGY

DRILLING TIME IN MINUTES PER FOOT

Rate of Penetration Increases



SAMPLE DESCRIPTIONS

REMARKS

SH: MED TO DK GRY, SCAT GRY-GRN & TR GRN W/ SCAT BUFF GRY & TAN CRYXLN SUBCHLKY TO GRAN DENSE HARD LM

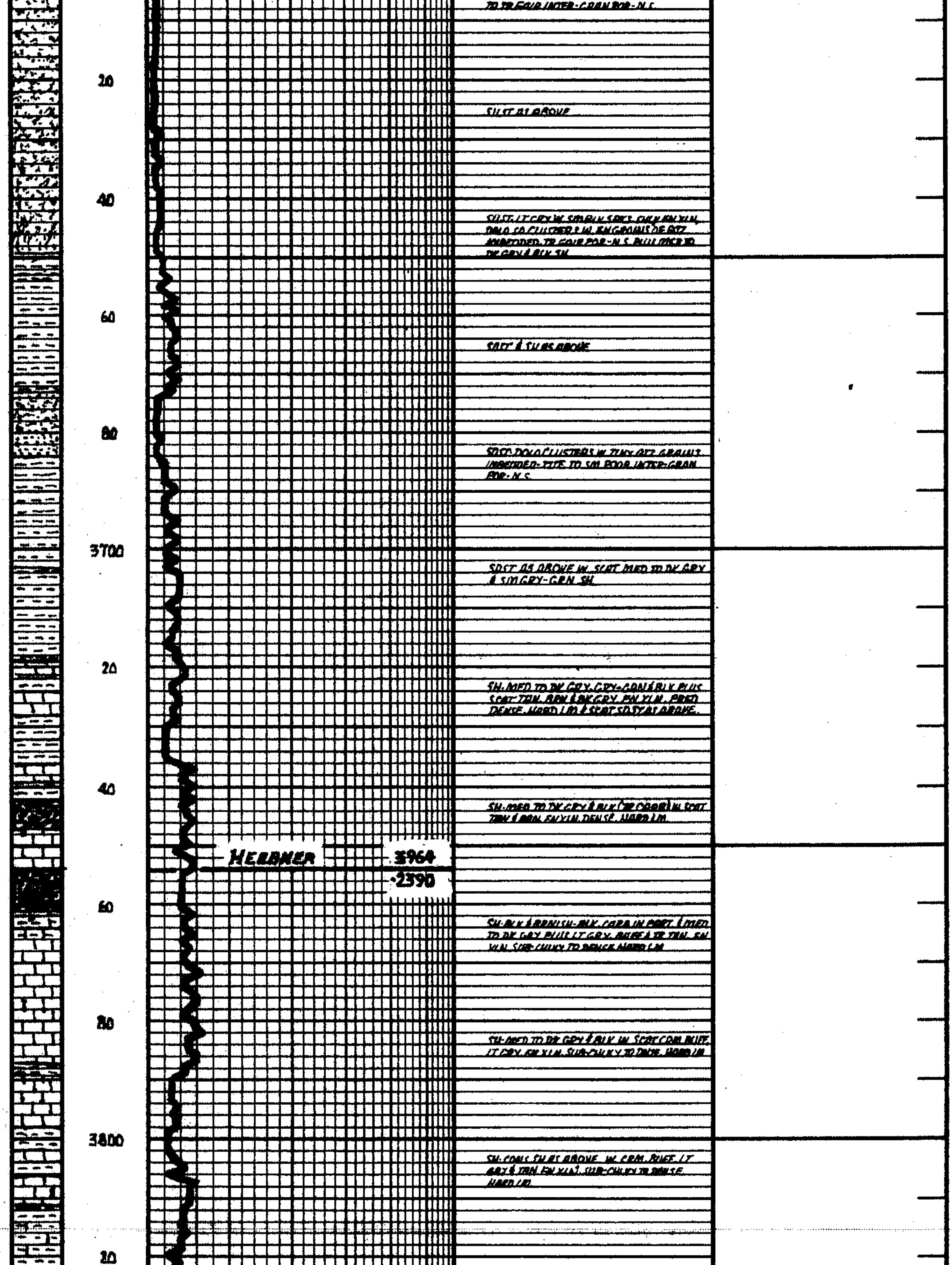
SH: MED TO DK GRY, GRY-GRN & GRN W/ SCAT BUFF GRY TAN & BRN, FXLD DENSE HARD LM

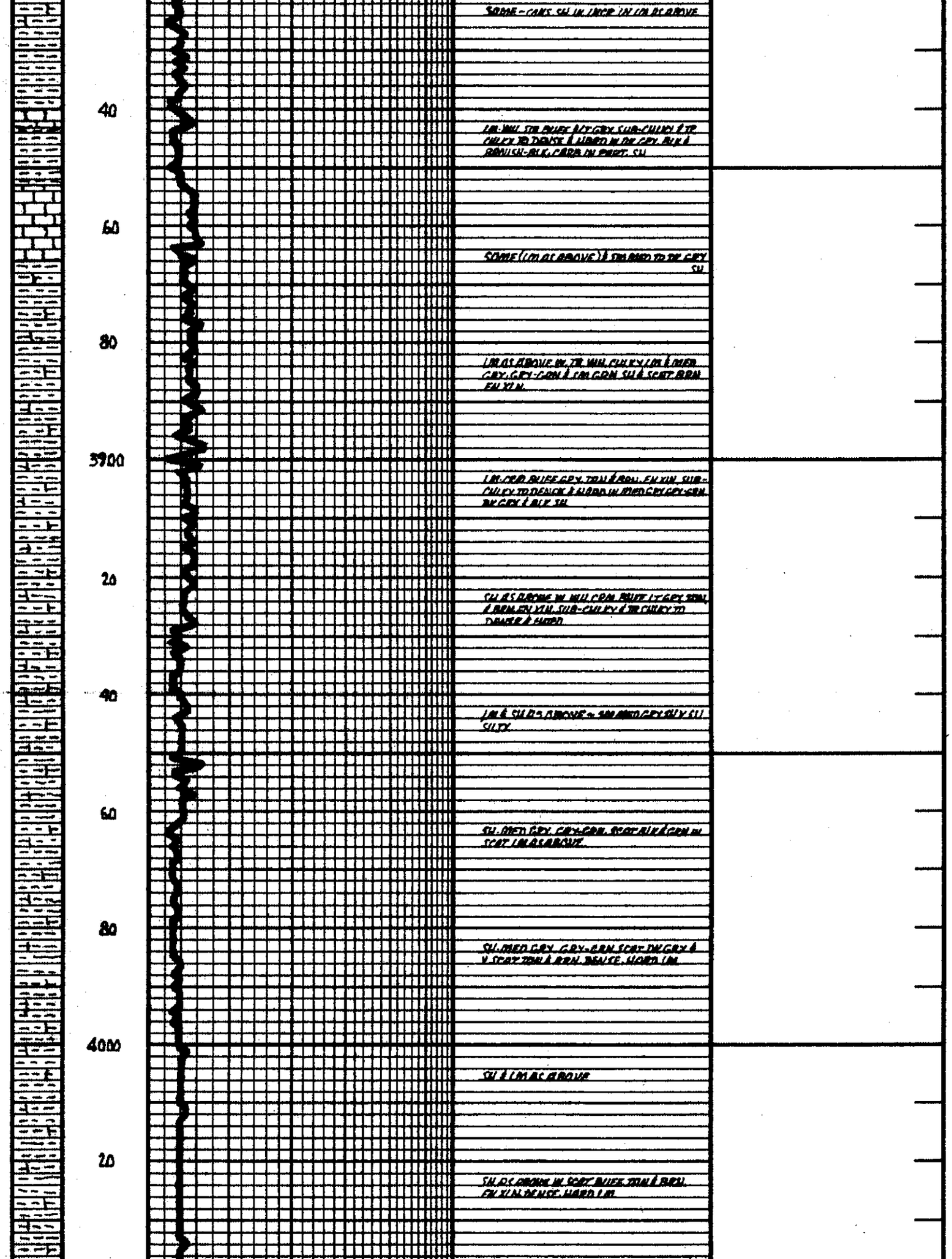
SH: AS ABOVE W/ SCAT BLK SH & SCAT WH CRM BUFF TAN & BRN CRYXLN SUB-CHLKY TO GRAN DENSE HARD LM

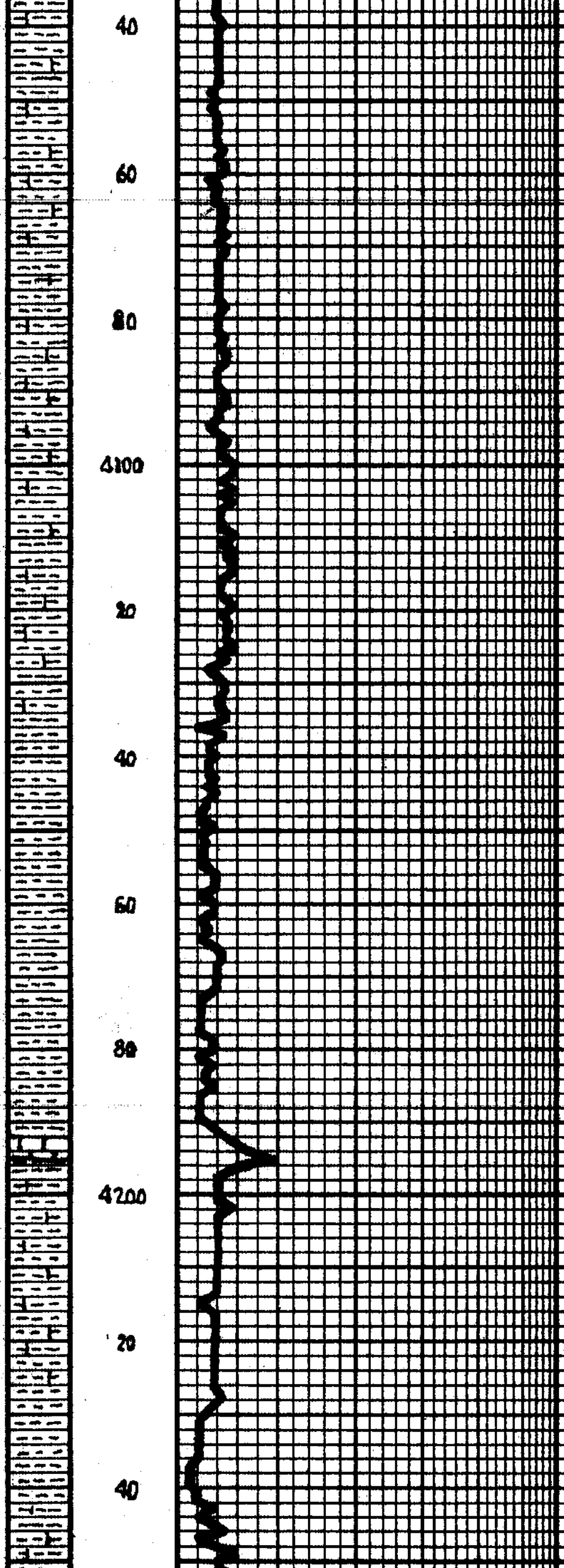
SH AS ABOVE W/ BLK CARB & LM AS ABOVE

SH: MED TO DK GRY & SCAT BLK W/ DK GRY & BRN CRYXLN DENSE HARD LM

SH, ST & VF GRAINED SD, DOLO & SLI LMY W/ TINY QTZ GRAINS IN BEDDED SCAT POOR


TO FAIR INTER-GRAN POR-N.S.
20
SLST AS ABOVE
40
SLST: LT GRY W. SPARLY SPKS. [illegible] DOLO SD CLUSTERS & W. FN GRAINS OF QTZ
IMBEDDED. TO FAIR POR-N.S. [illegible]
DK GRY & BLK SH
60
SDST & SH AS ABOVE
80
SDST: DOLO CLUSTERS W. TINY QTZ GRAINS
IMBEDDED- TITE TO SM POOR INTER-GRAN
POR-N.S.
3700
SDST AS ABOVE W. SCAT MED TO DK GRY
& SM GRY-GRN SH
20
SH: MED TO DK GRY, GRY-GRN & BLK PLUS
SCAT TAN, BRN & DK GRY, FN XLN, PRED
DENSE, HARD LM & SCAT SDST AS ABOVE.
40
SH: MED TO DK GRY & BLK ([illegible] CARB) W. SCAT
TAN & BRN FN XLN, DENSE, HARD LM
HEEBNER
3964
-2390
60
SH: BLK & BRNISH-BLK, CARB IN PART & MED
TO DK GRY PLUS LT GRY, BUFF & [illegible] TAN, FN
XLN, SUB-CHLKY TO DENSE HARD LM
80
SH: MED TO DK GRY & BLK W. SCAT COM BUFF,
LT GRY, FN XLN, SUB-CHLKY TO DENSE, HARD LM
3800
SH: CONS SH AS ABOVE W. COM BUFF, LT
GRY & TAN FN XLN, SUB-CHLKY TO DENSE
HARD LM
20


SOME - CONT. SH IN INCR IN LM AS ABOVE
40
LM - MW, STR BUFF & LT GRY, SUB-CHLKY & TR CHLKY TO CHALKY & HARD IN DK GRY, BLK & GRNISH-BLK, CARB IN PART. SH
60
SOME (LM AS ABOVE) & STR MXD TO DK GRY SH
80
LM AS ABOVE IN TR MW, CHLKY, LM & MED GRY, GRY-GRN & LM GRN SH & SCAT RRN FM XLN
3900
LM, CRD BUFF, GRY, TAN & BRN, FM XLN, SUB-CHLKY TO CHALKY & HARD IN MXD GRY, GRY-GRN, DK GRY & BLK SH
20
SH AS ABOVE IN MW, CRN, BUFF, LT GRY, TAN, & BRN, FM XLN, SUB-CHLKY & TR CHLKY TO CHALKY & HARD
40
LM & SH AS ABOVE - SM MXD GRY SLTY SH SILTY
60
SH, MXD GRY, GRY-GRN, SCAT BLK & GRN SH SCAT LM AS ABOVE
80
SH, MXD GRY, GRY-GRN SCAT DK GRY & V SCAT TAN & BRN, BUFF, HARD LM
4000
SH & LM AS ABOVE
20
SH AS ABOVE IN SCAT BUFF, TAN & BRN, FM XLN CHALKY, HARD LM



SH AS ABOVE W. SCAT BRN. FN XLN. DNSE HARD LM

SH: MED GRY, GRY-GRN & V. SCAT DK GRY & TR BLK

SH AS ABOVE W. TR GRN SH

SH: MED GRY, GRY-GRN, SCAT GRN & TR MAR PLUS CMN BUFF, GRY, TAN & BRN. FN XLN. DENSE, HARD LM

SH: MED GRY, GRY-GRN & SCAT DK GRY & V. SCAT GRN & RED SH

SH: MED GRY, GRN-GRN, SCAT DK GRY & BLK & V. SCAT GRN

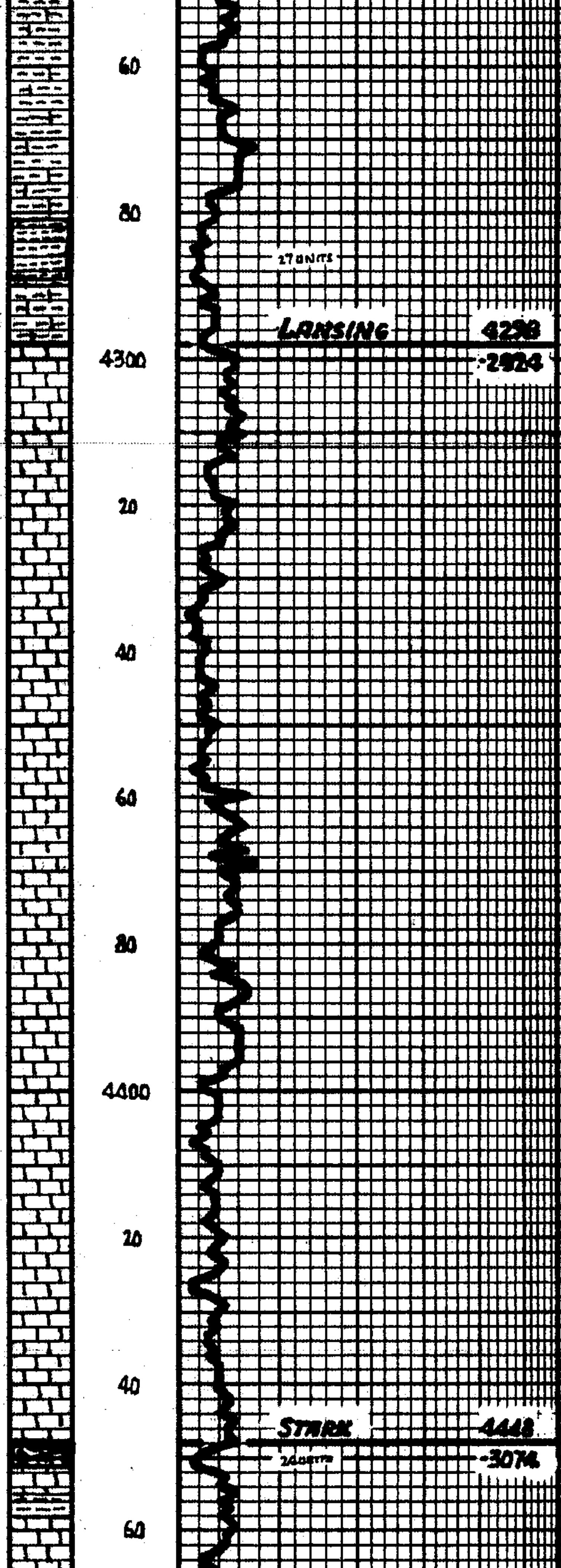
SH AS ABOVE W. SCAT BUFF, TAN & BRN. FN XLN. SUB-CHLKY TO DENSE, HARD LM

SH: MED TO DK GRY, GRY-GRN & BLK. TR SILTY

LM: BUFF, GRY & TAN, FN XLN. SUB-CHLKY TO DENSE, HARD W. CONS SH AS ABOVE.

SH: MED TO DK GRY, GRY-GRN, GRN & BLK W. LM AS ABOVE PLUS SCAT LT GRY SUB-CHLKY LM W. DK GRY SH PELLET & TR SD GRAINS INBEDDED (SPECKLED)

SAME AS ABOVE



SH. MED TO DK GRY, GRY-GRN SCAT DK GRY & BLK PLUS SCAT CRM, BUFF GRY, TAN & BRN FN XLN SUB-CHLKY TO DENSE HARD LM

SH & LM AS ABOVE PLUS BLK, V CARB (GAS BUBBLES) SH

LM - WH CRM, BUFF & LT GRY, FN XLN, SUB-CHLKY & TR CHLKY TO SAT DENSE, HARD LM STILL ABD BLK CARB. SH

LM - WH, CRM, BUFF GRY, TAN & BRN, FN XLN SUB-CHLKY & TR CHLKY TO DENSE & HARD - STILL SH AS ABOVE

SAME AS ABOVE W CONS SH

LM - WH & CRM FN XLN FOSS (ECHINOID) CHLKY & SUB-CHLKY W LT GRY, BUFF & TAN, FN XLN PRED DENSE & HARD

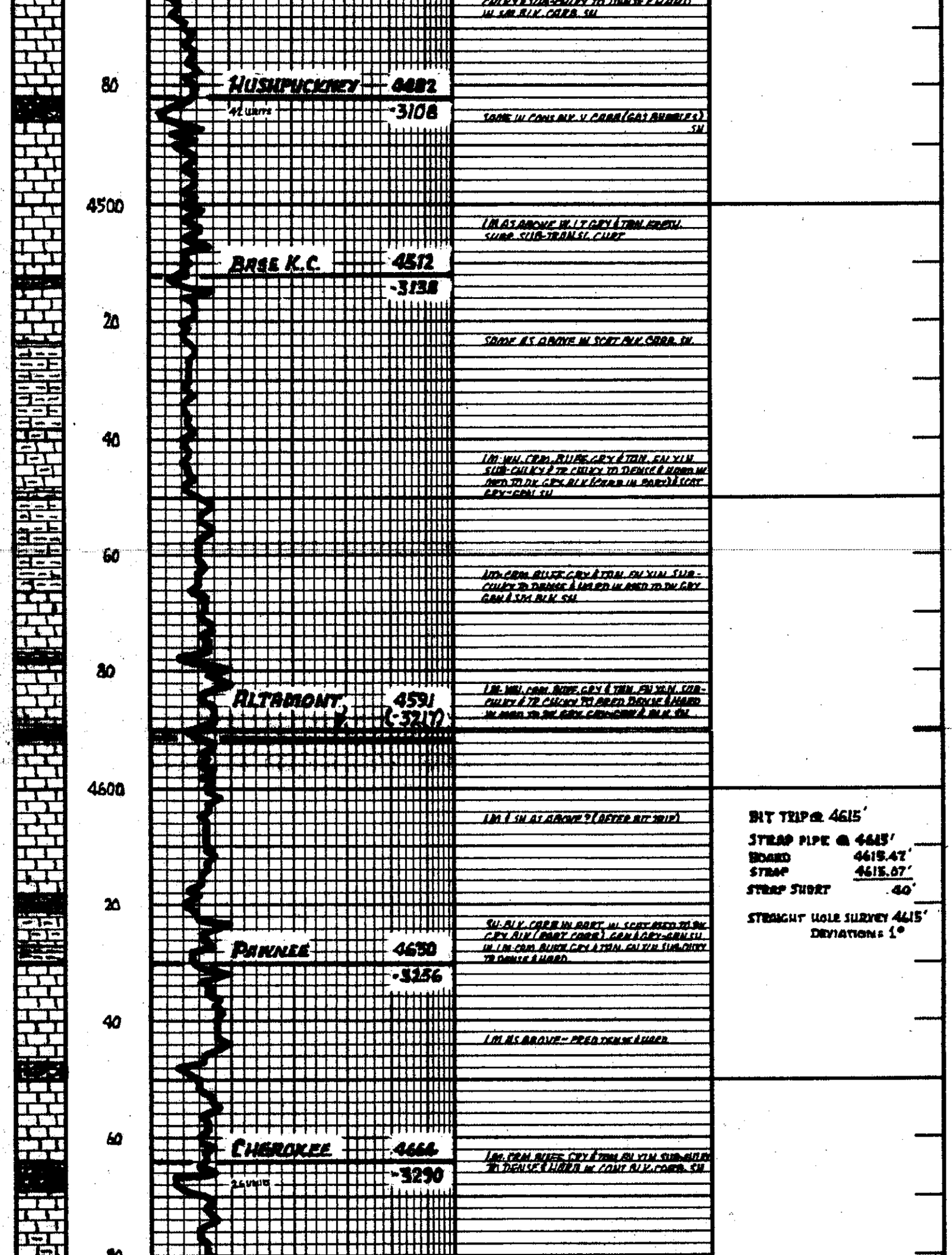
LM - WH CRM, BUFF, LT GRY & TAN, FN XLN SUB-CHLKY & TR CHLKY TO DENSE & HARD

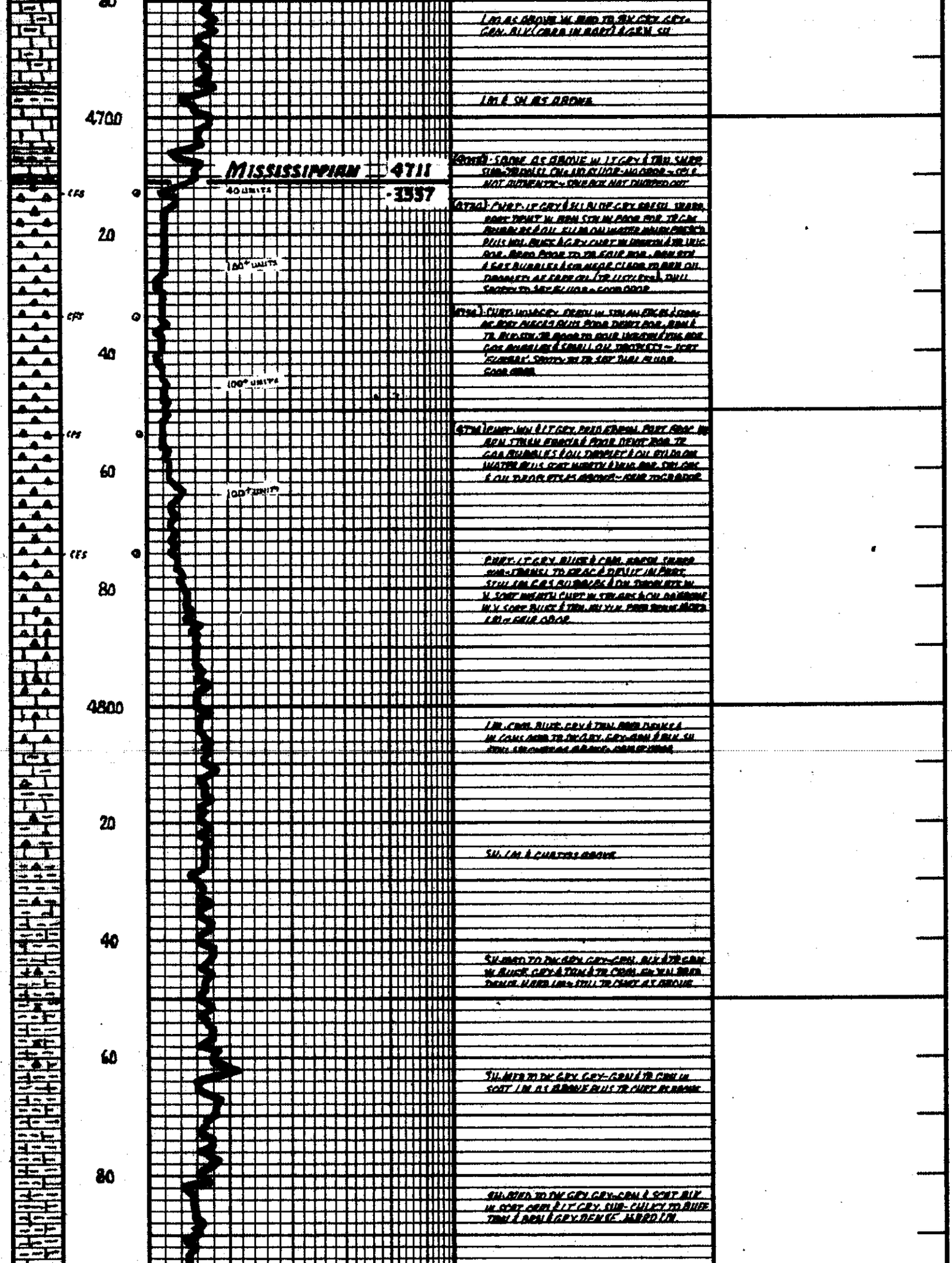
LM - CRM, BUFF GRY & TAN FN XLN, SUB-CHLKY TO PRED DENSE, HARD & CHERTY W V. SCAT LT GRY FRESH SHRP, SUB-TRANSL CHRT

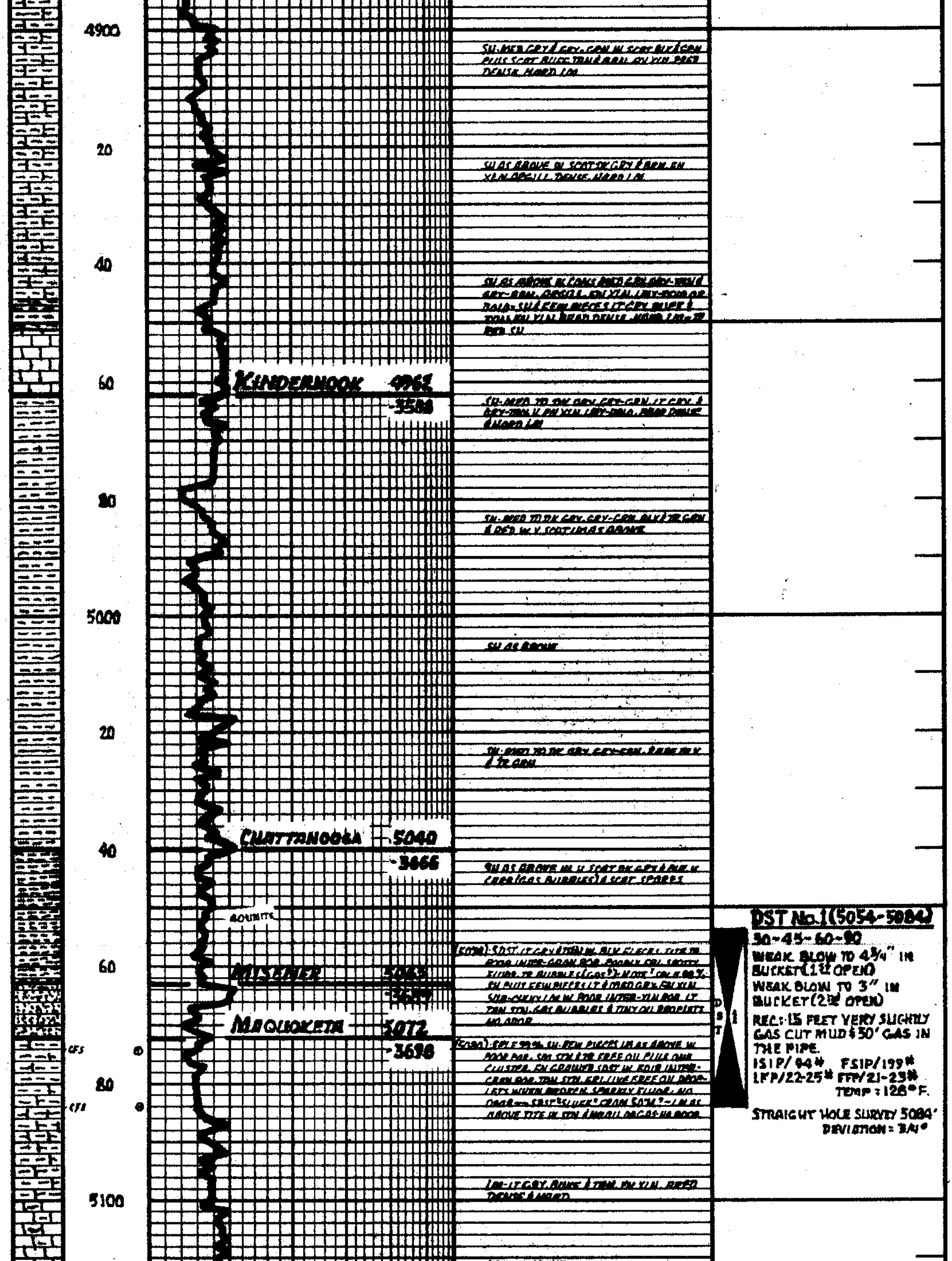
LM - BUFF GRY, TAN & BRN, FN XLN, PRED DENSE & HARD W V. SCAT WH & CRM, SUB-CHLKY & CHLKY LM

LM - AS ABOVE W INCR IN WH & CRM, CHLKY & SUB-CHLKY & SCAT BLK, CARB SH

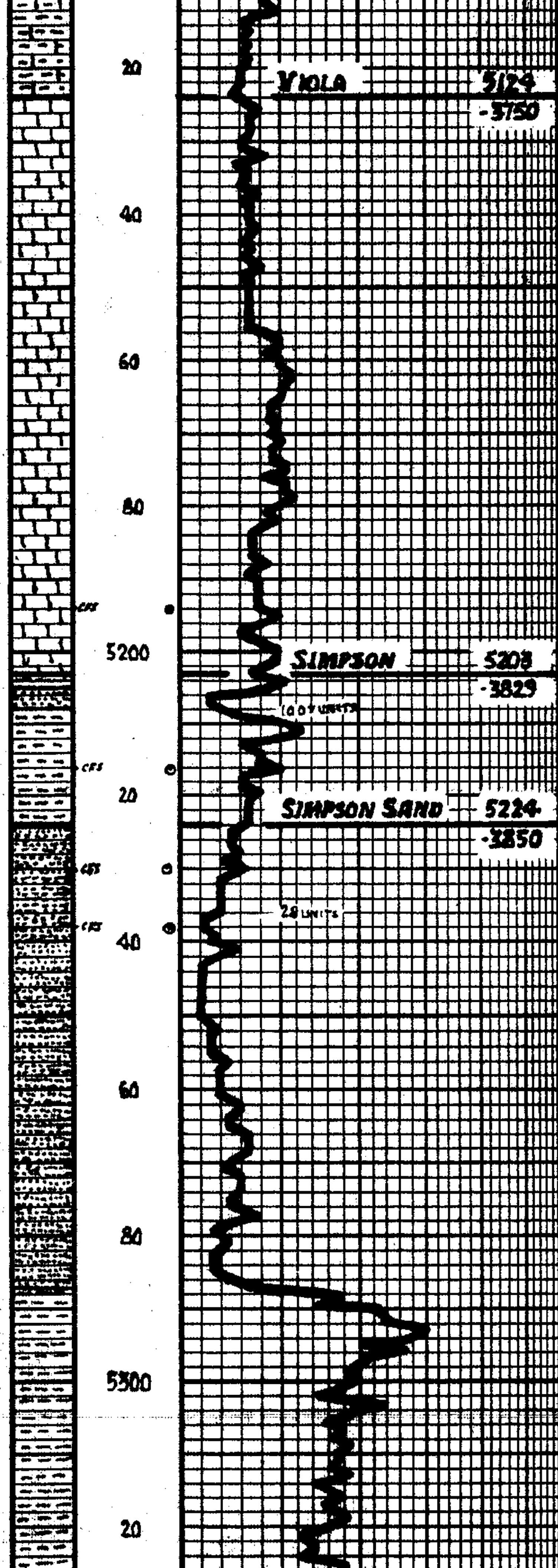
LM - WH, CRM, BUFF GRY & TAN, FN XLN,


80
HUSHPUCKNEY 4482
42 UNITS -3108
SOME IN CONS BLK V CARB (GAS BUBBLES) SH
4500
LM AS ABOVE W/ LT GRY & TRN FROM SLIGHT SUB-TRANSL. CHERT
BASE K.C. 4512
-3138
20
SAME AS ABOVE W/ SCAT BLK CARB. IN.
40
LM W/N. CARB. RUBBLE GRY & TRN. CAL V.F.N. SUB-CHALKY & TR CHERTY TO DENSE & HARD W/ INCR TO DK. GRY BLK (CARB IN PART) & SCAT GRY-GRN SH
60
LTR-GRN RUBBLY GRY & TRN. CAL V.F.N. SUB-CHALKY TO DENSE & LAM PD W/ INCR TO DK GRY GRN & SM BLK SH
80
ALTAMONT 4591
(-3217)
LM W/ MIL CARB. RUBBLY GRY & TRN. CAL V.F.N. SUB-CHALKY & TR CHERTY TO INCR DENSE & HARD W/ INCR TO DK GRY GRN-GRY & BLK SH
4600
LM & SH AS ABOVE? (BETTER BIT TRIP)
20
SH BLK CARB IN PART W/ SCAT INCR TO DK GRY BLK (PART CARB) GRN & GRY-GRN SH
PAWNEE 4630
-3256
LM W/N. CARB. RUBBLY GRY & TRN. CAL V.F.N. SUB-CHALKY TR CHERTY TO DENSE & HARD
40
LM AS ABOVE - PRED DENSE & HARD
60
CHEROKEE 4664
-3290
LM. CARB RUBBLY GRY & TRN CAL V.F.N. SUB-CHALKY TO DENSE & HARD W/ SCAT BLK CARB SH
26 UNITS
BIT TRIP @ 4615'
STRAP PIPE @ 4615'
BOARD 4615.47'
STRAP 4615.87'
STRAP SHORT .40'
STRAIGHT HOLE SURVEY 4615'
DEVIATION = 1°


4700
4800
MISSISSIPPIAN 4711
-3357
40 UNITS
100 UNITS
100 UNITS
100 UNITS
CFS
CFS
CFS
CFS
20
40
60
80
20
40
60
80



4900
20
40
60
KINDERHOOK 4962
-3588
80
5000
20
CHATTANOOGA 5040
-3666
40
AQUINITE
60
MISENER 5063
MAQUOKETA 5072
-3698
80
5100
SH AS ABOVE
DST No.1(5054-5084)
30-45-60-90
WEAK BLOW TO 4¾" IN BUCKET(1½ OPEN)
WEAK BLOW TO 3" IN BUCKET(2½ OPEN)
REC: 15 FEET VERY SLIGHTLY GAS CUT MUD $ 50' GAS IN THE PIPE.
ISIP/ 94#
FSIP/199#
IFP/22-25#
FFP/21-23#
TEMP : 128°F.
STRAIGHT HOLE SURVEY 5084'
DEVIATION = 3/4°



LM AS ABOVE W/ CONS MED TO DK GRY BLK & GRY-GRN SH.

LM AS ABOVE W/ SCAT BRN FN XLN, PRED DENSE, HARD, PRTLY ARGILL LM PLUS ABD MED & DK GRY, GRY-GRN, & BLK SH.

LM & SH AS ABOVE & TR GRN SH.

LM - CRM, BUFF, GRY, TAN & BRN (ARGILL IN PART) FN XLN, SUB-CHLKY TO DENSE & W/ CONS MED GRY, GRY-GRN, GRN, BROWN & BLK.

SH - AS ABOVE W/ INCR IN GRN & DK GRN (AQUA?) PLUS SCAT LM AS ABOVE.

(5196) SH - MED TO DK GRY & GRY-GRN & BLK W/ SCAT LM AS ABOVE.

(5216) SH - MED TO DK GRY, GRY-GRN, BLK, SCAT GRN & TR AQUA PLUS CLEAR, SUB-RNDED TO PRED WELL-RNDED, MED QTZ GRAINS ON TRAY BOTTOM, NO FLUOR OR ODOR, PLUS TR TAN, FN XLN, SUB-CHLKY & SLI DOLO-LM W/ POOR INTER-XLN POR W/ CONS GAS & OIL DROPLETS, SAT FLUOR (BLUE?) - NO ODOR.

(5220) SD - CLEAR & TR LT GRY, FN & MED, SINGLE QTZ GRAINS, PRED WELL RNDED W/ NO VIS SHOW, FLUOR OR ODOR.

(5230) SD - AS ABOVE W/ CLUSTERS OF FN & MED GRAINS, DOLO W/ CONS QTZ GRAINS IMBEDDED TR FLUOR IN POOR TO SUB-HARD, SLI POR - NO CUMULAR ... PLUS CLEAR, FN & MED GRAINED, SUB-RNDED TO WELL-RNDED QTZ GRAINS - N.S.

SDST, LT GRY, CLUSTERS OF FN GRAINED (SOME MED GRAINS IMBEDDED) WELL-RNDED, ... IN GOOD INTER-GRAN POR, TR (1 PIECE) FLUOR (MINERAL?) PLUS SINGLE GRAINS AS ABOVE & CONS MED TO DK GRY, GRN & TR AQUA SH.

SD - LT GRY, BUFF & TAN W/ ... FN & V. FN GRAINED, HARD BUT FRI W/ SUB-RNDED TO WELL-RNDED QTZ GRAINS, POOR POR - N.S. - ... SH AS ABOVE.

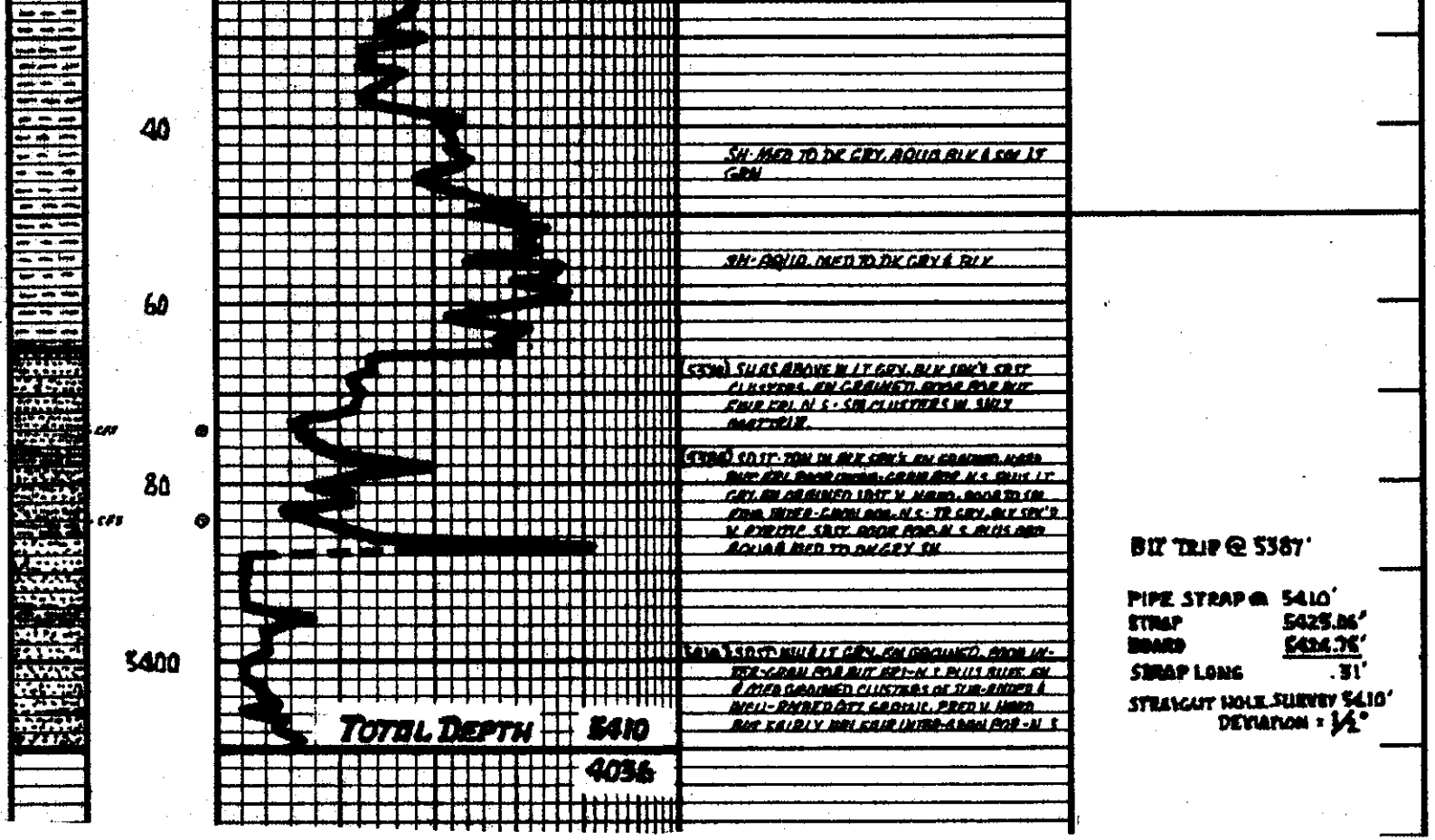
SD - CLEAR, SINGLE, SUB-RNDED TO PRED WELL-RNDED, FN & MED QTZ GRAINS ON TRAY BOTTOM W/ SCAT LT GRY FN GRAINED, CLEAR TO LT GRY, SUB-ANG TO WELL-RNDED CLUSTERS W/ POOR TO FAIR POR - N.S.

SH - MED TO DK GRY, GRY-GRN, BLK, AQUA & LT GRN.

SH - MED TO DK GRY, GRY-GRN, BLK, GRN & AQUA

DST No. 2 (5179-5216')
30-45-60-90
FAIR BLOW BLDING TO 11" IN BUCKET (1ST OPEN)
WEAK STEADY BLOW AT 1" IN BUCKET (2ND OPEN)
REC: 45' SLI GAS CUT OILY MUD (12% GAS, 37% OIL, 51% MUD) & 2495' GAS IN PIPE.
ISIP/1789# FSIP/N/A
IFP/27-25# FFP/32-35#
TEMP=128°F.

DST No. 3 (5225-5238')
30-45-60-90
STRONG BLOW TO BOTTOM OF BUCKET IN 2 MIN. (1ST OPEN)
STRONG BLOW TO BOTTOM OF BUCKET IN 3 MIN (2ND OPEN)
REC: 180' DRLG MUD & 3120' MUD CUT WATER. 080,000 CHL.
ISIP/2025# FSIP/2032#
IFP/32-606# FFP/606-1316#
TEMP=138°F.



BIT TRIP @ 5387'

PIPE STRAP @	5410'
STRAP	5425.86'
BOARD	5424.76'
STRAP LONG	.31'

STRAIGHT HOLE SURVEY 5410'
DEVIATION = ¼°