

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

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

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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

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

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

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

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

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

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Eternity Exploration, LLC
Well Name	LADENBURGER 1
Doc ID	1329575

All Electric Logs Run

Compensated Density/Neutron
Dual Induction
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Eternity Exploration, LLC
Well Name	LADENBURGER 1
Doc ID	1329575

Tops

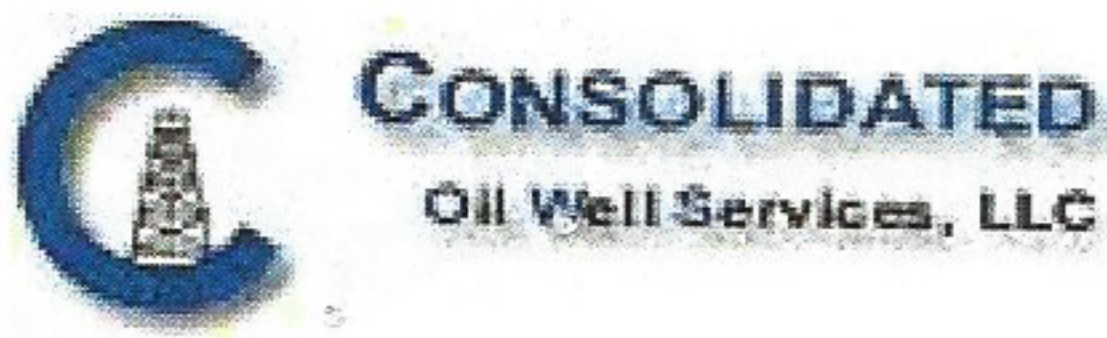
Name	Top	Datum
Anhydrite	2624	+408
B/Anhydrite	2654	+378
Heebner	4021	-989
Lansing	4063	-1031
Stark	4272	-1240
Huspuckney	4310	-1278
B/KC	4336	-1304
Fort Scott	4520	-1488
Cherokee	4550	-1518
Mississippi	4626	-1594

Form	ACO1 - Well Completion
Operator	Eternity Exploration, LLC
Well Name	LADENBURGER 1
Doc ID	1329575

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4324-4329; 4331-4334	500 gals 15%MA	4334
	4324-4329; 4331-4334	1500 gals 15%NE w/3%MAS	4334





REMIT TO  
 Consolidated Oil Well Services, LLC  
 Dept:970  
 P.O.Box 4346  
 Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884  
 Chanute, KS 66720  
 620/431-9210, 1-800/467-8676  
 Fax 620/431-0012

Invoice Invoice# 809182

Invoice Date: 12/06/16 Terms: Net 30 Page 1

ETERNITY EXPLORATION  
 338 SPY GLASS DRIVE  
 COPPELL TX 75019  
 USA

LADENBURGER #1

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	45.000	632.50
CE0002	Equipment Mileage Charge - Heavy Equipment	10.000	7.1500	45.000	39.33
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	45.000	363.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	175.000	23.0000	45.000	2,213.75
CC5326	Sodium Chloride, Salt	100.000	0.0000	0.000	0.00

Subtotal 5,906.50  
 Discounted Amount 2,657.93  
 SubTotal After Discount 3,248.57

Amount Due 6,208.38 If paid after 01/05/17

Tax: 166.03  
 Total: 3,414.61

*Pd - 12-26-16  
 @ #4040*

*Invoiced to Ladenburger #1 D+T*



**CONSOLIDATED**  
Oil Well Services, LLC

7167  
7066

TICKET NUMBER 51642  
LOCATION Oakley KS  
FOREMAN Jerry Y

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

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

Invoice# 809182

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-1-16	2717	Ladenburger #1	13	95	32W	Thomas
CUSTOMER			TRUCK #			
Eternity Exploration			731			
Mailing Address			DRIVER			
338 Spyglass Drive			Cory D			
CITY			TRUCK #			
Coppell			479			
STATE			DRIVER			
TX			Steve O			
ZIP CODE			RATE			
75019-5430						
JOB TYPE	HOLE SIZE	HOLE DEPTH	CASING SIZE & WEIGHT			
Surface	12 1/4	249	8 5/8 24#			
CASING DEPTH	DRILL PIPE	TUBING	OTHER			
247						
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT in CASING			
14.8	1.24		20'			
DISPLACEMENT	DISPLACEMENT PSI	MIX PSI	RATE			
14 1/2 bbl						

REMARKS: Safety meeting on rig upon White Knight break circulation mix, 175 sks surface blend II Dash up & displace with 14 1/2 bbl fresh water & shut in. Circulated approx 2 bbl to pit

Cement did circulate

Thank you Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	10	MILEAGE	7.15	71.50
CE0711	8.23	ten mileage delivery (min)	660.00	660.00
CC5871	175 sks	Surface blend II	23.00	4025.00
CC5326	100 #	Salt	no charge	0
			subtotal	5906.50
			- 45%	2657.93
			subtotal	3248.57
			SALES TAX	166.03
			ESTIMATED TOTAL	3414.61

AVIN 3737  
AUTHORIZATION Terry Auster TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.





P.O. Box 205803  
Dallas, TX 75320-5803

Voice: (832) 482-3742  
Fax: (832) 482-3738

# INVOICE

Invoice Number: 153461

Invoice Date: Dec 10, 2016

Page: 2

Federal Tax I.D.#: 81-2169190

Bill To:
Eternity Exploration, LLC 338 Spyglass Dr Coppell, TX 75019

Customer ID	Field Ticket #	Payment Terms	
Eter	68197	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Dec 3, 2016	1/9/17

Quantity	Item	Description	Unit Price	Amount
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Cement Service	3,912.51	-3,912.51
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Equipment	2,667.36	-2,667.36
1.00	JOB DISCOUNT	Job Discount if paid within terms --DV Tool Discount <i>OK</i>	2,134.00	-2,134.00
1.00	E-RYAN.ALAN	SERVICE SUPERVISOR		
1.00	E-RYAN.KEVIN	EQUIPMENT OPERATOR		
1.00	E-MITTEN.JADE	EQUIPMENT OPERATOR		

*Pd-1-5-17  
ch# 4052*

<p>ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE</p> <p><b>Jan 9, 2017</b></p> <p>1 1/2% CHARGED THEREAFTER.</p>	Subtotal	18,932.33
	Sales Tax	1,102.01
	Total Invoice Amount	20,034.34
	Payment/Credit Applied	
	<b>TOTAL</b>	<b>20,034.34</b>

*Invoiced to Ladenburger #1 Completion*



P.O. Box 205803  
Dallas, TX 75320-5803

Voice: (832) 482-3742  
Fax: (832) 482-3738

# INVOICE

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Eternity Exploration, LLC  
338 Spyglass Dr  
Coppell, TX 75019

Customer ID	Field Ticket #	Payment Terms	
Eter	68197	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Dec 3, 2016	1/9/17

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Ladenburger 1		
475.00	CEMENT MATERIALS	60-40-6% GEL	19.88	9,443.00
140.00	CEMENT MATERIALS	ASC	23.50	3,290.00
700.00	CEMENT MATERIALS	KOL Seal	0.98	686.00
66.00	CEMENT MATERIALS	CFL-330	23.10	1,524.60
20.00	CEMENT MATERIALS	Cement Material Sales	3.50	70.00
120.00	CEMENT MATERIALS	FloSeal	2.97	356.40
20.00	CEMENT MATERIALS	HVS	58.70	1,174.00
709.00	CEMENT SERVICE	PHDL	2.48	1,758.32
300.00	CEMENT SERVICE	DRYG	2.75	825.00
10.00	CEMENT SERVICE	MIHV	7.70	77.00
10.00	CEMENT SERVICE	MILV	4.40	44.00
1.00	CEMENT SERVICE	Cement Head Manifold	275.00	275.00
1.00	CEMENT SERVICE	Top Stage	2,406.25	2,406.25
1.00	CEMENT SERVICE	Production	2,765.75	2,765.75
1.00	EQUIPMENT SALES	Packer Shoe 5.5	3,765.00	3,765.00
1.00	EQUIPMENT SALES	DV Tool	5,335.00	5,335.00
1.00	EQUIPMENT SALES	Latchdown Assy	660.00	660.00
2.00	EQUIPMENT SALES	Baskets	395.00	790.00
6.00	EQUIPMENT SALES	Centralizers	57.00	342.00
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Material	7,941.12	-7,941.12

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. ONLY IF PAID ON OR  
BEFORE

**Jan 9, 2017**

1 1/2% CHARGED  
THEREAFTER.

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
<b>TOTAL</b>	<b>Continued</b>



# ALLIED OFS, LLC

Federal Tax I.D. #81-2169190

15.2

68197

REMIT TO: Allied OFS, LLC  
P.O. Box 205803  
Dallas, TX 75320-5803

SERVICE POINT:

*Dakota Hwy*

DATE <i>12/10/16</i>	SEC. <i>13</i>	TWP. <i>9</i>	RANGE <i>30</i>	CALLED OUT	ON LOCATION	JOB START <i>9:30p</i>	JOB FINISH <i>10:30p</i>
LEASE <i>Land Agency</i>	WELL # <i>1</i>	LOCATION <i>Dakota N 10 BLK 2 1/2 E N 20th Thomas</i>		COUNTY	STATE <i>KS</i>		
OLD OR NEW (Circle one)							

CONTRACTOR <i>White Knight</i>
TYPE OF JOB <i>Prod. &amp; Stage</i>
HOLE SIZE <i>7 7/8</i> T.D.
CASING SIZE <i>5 1/2</i> DEPTH <i>4461</i>
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL <i>DU</i> DEPTH <i>2630</i>
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT <i>24</i>
CEMENT LEFT IN CSG. <i>24</i>
PERFS.
DISPLACEMENT <i>44 H<sub>2</sub>O - 66 Big Mud - better</i>
<i>65 66L H<sub>2</sub>O</i> EQUIPMENT
<i>TOP</i>
PUMP TRUCK CEMENTER <i>Alan Ryan</i>
# <i>566-281</i> HELPER <i>Ruin Ryan</i>
BULK TRUCK
# <i>818</i> DRIVER <i>Jade Mitten</i>
BULK TRUCK
# <i>379</i> DRIVER <i>Jade Mitten</i>

OWNER <i>Same</i>
CEMENT
AMOUNT ORDERED <i>140 ASC</i>
<i>475 ALW 65/35 670 745</i>
<i>65/35 670 475</i>
COMMON <i>300</i> @ <i>19.88</i> <i>9443.00</i>
POZMIX @
GEL @
CHLORIDE @
ASC <i>140 51K</i> @ <i>23.80</i> <i>3290.00</i>
<i>Kol Seal 200lb</i> @ <i>0.98</i> <i>686.00</i>
<i>CF 1330 66</i> @ <i>23.80</i> <i>1524.00</i>
<i>Deframer 20</i> @ <i>3.50</i> <i>70.00</i>
<i>Fluorid 120</i> @ <i>2.92</i> <i>350.40</i>
<i>HV M Sump 20 Bbl</i> @ <i>58.70</i> <i>1174.00</i>
TOTAL <i>16,544.00</i>
DISCOUNT <i>48%</i> <i>7941.12</i>

### REMARKS:

*Run Casing Circulate Max 20 BBL WFT. Max 140 51K ASC  
Wash Truck Displace H<sub>2</sub>O Big Mud w/ 500 PSI  
Land Plug @ 1500, Open Tool to Circulate, Max  
305K Bat Hole, Max 445 5K ALW Down  
5 1/2 Wash Truck Displace Plug w/ 65 BBL H<sub>2</sub>O  
w/ 1700 lb WFT, Land Plug @ 2000, Tool CLOSURE*

*Cement Add Circulate*  
*20 BBL TO PIT*  
*Thank you Alan, Jade*

CHARGE TO: *Eternity Exp*

STREET \_\_\_\_\_

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

### SERVICE

HANDLING <i>709 CE</i> @ <i>2.48</i> <i>1753.32</i>
MILEAGE <i>2.25</i> you/mile <i>3070W</i> <i>695.00</i>
DEPTH OF JOB
PUMP TRUCK CHARGE <i>2765.75</i>
EXTRA FOOTAGE @
HV MILEAGE <i>10</i> @ <i>7.70</i> <i>77.00</i>
LV MILEAGE <i>10</i> @ <i>4.40</i> <i>44.00</i>
H-M @ <i>2.25</i> <i>22.50</i>
<i>TOP Stage</i> @ <i>2406.25</i>
TOTAL <i>8,151.07</i>
DISCOUNT <i>48%</i> <i>3912.51</i>

*CO, Man Ordered 175 51K more of  
65/35 670 14 FLO  
For 475 51K TOTAL*

### PLUG & FLOAT EQUIPMENT

<i>Prother 500</i> 1 @ <i>3765.00</i>
<i>400 DU 7001</i> 1 @ <i>5335.00</i> <i>5335.00</i>
<i>Letah Dem w</i> 1 @ <i>660.00</i> <i>660.00</i>
<i>Bea Huts</i> 2 @ <i>395.00</i> <i>790.00</i>
<i>Centralizer</i> 6 @ <i>57.00</i> <i>342.00</i>
TOTAL <i>10,892.00</i>

DISCOUNT *48%* *2667.36*  
*DV Total 40 2.134.00*

To: Allied OFS, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME *Butch Drylie*

SIGNATURE *[Signature]*

THILL PRINTING CO., INC. - GREAT BEND, KS.

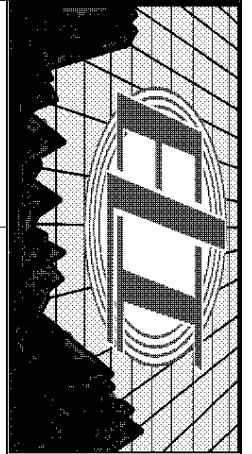
SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES *35,587.07*

DISCOUNT *16,654.99 (48%)* IF PAID IN 30 DAYS

NET TOTAL *18,932.08* IF PAID IN 30 DAYS

*Bid*



# DUAL INDUCTION LOG

Company	ETERNITY EXPLORATION, LLC	
Well	LANDENBURGER NO.1	
Field	WILDCAT	
County	THOMAS	
State	KANSAS	
Location:	API # : 15-193-20980-00-00	Other Services CNL/CDL MEL/SONIC
Permanent Datum	GROUND LEVEL	Elevation 3027
Log Measured From	KELLY BUSHING	5' A.G.L.
Drilling Measured From	KELLY BUSHING	
	SEC 13 TWP 9S RGE 32W	Elevation K.B. 3032 D.F. 3030 G.L. 3027

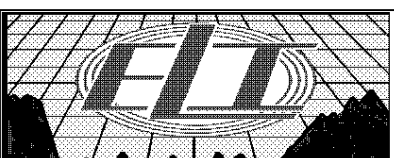
Date	12/10/16
Run Number	ONE
Depth Driller	4730
Depth Logger	4731
Bottom Logged Interval	4729
Top Log Interval	0
Casing Driller	8 5/8"@24'
Casing Logger	246'
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/80
pH / Fluid Loss	9.4/8.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.0@80
Rmf @ Meas. Temp	.75@80
Rmc @ Meas. Temp	1.2@80
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.65@123
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	123 DEG/F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JUSTIN HENRICKSON
Witnessed By	KIM SHOEMAKER
	CARLO UGOLINI

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

### Comments

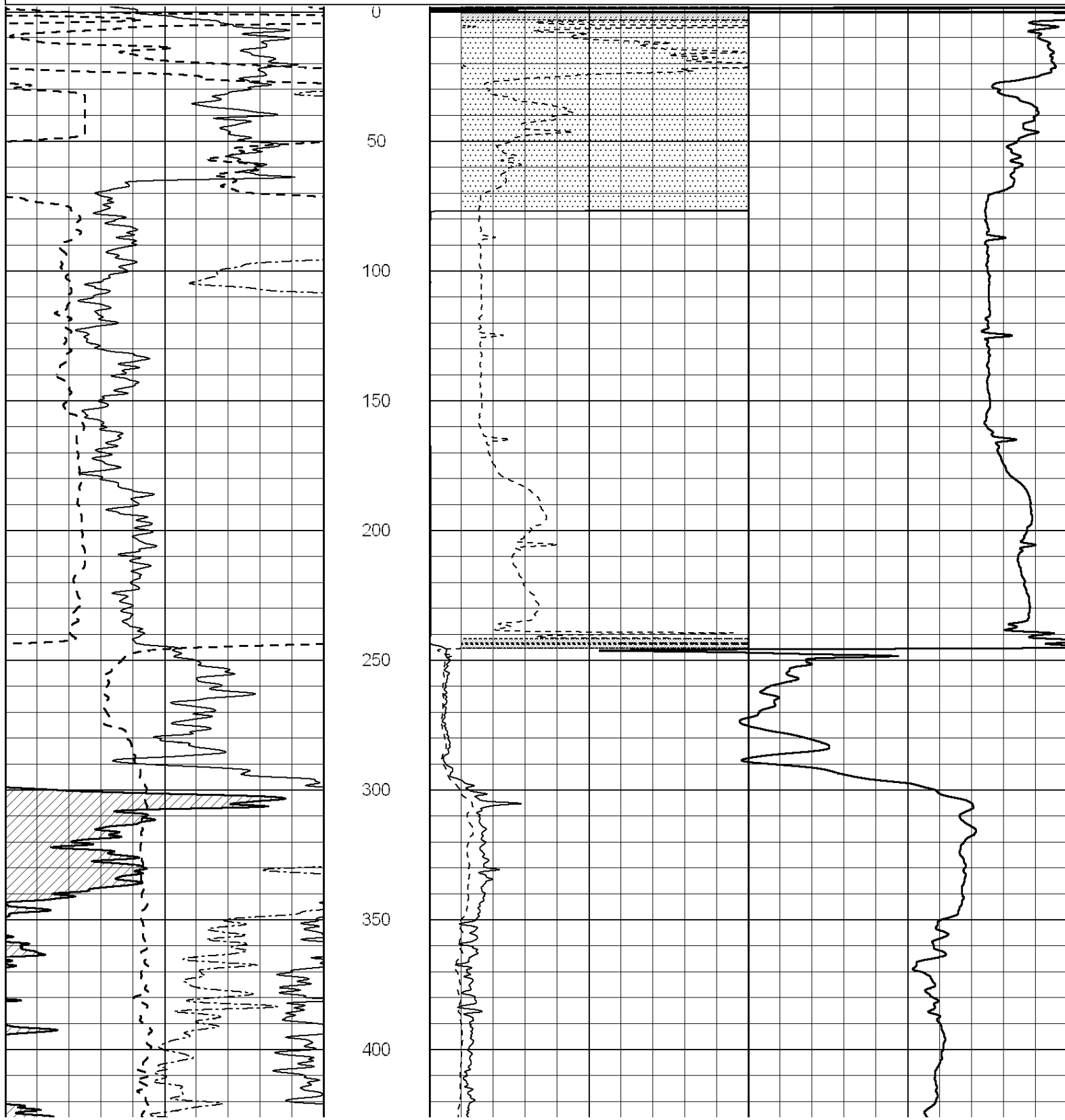
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
 DIRECTIONS  
 INTERSTATE EXIT #70  
 5 NORTH TO J ROAD, 2 EAST, NORTHWEST INTO

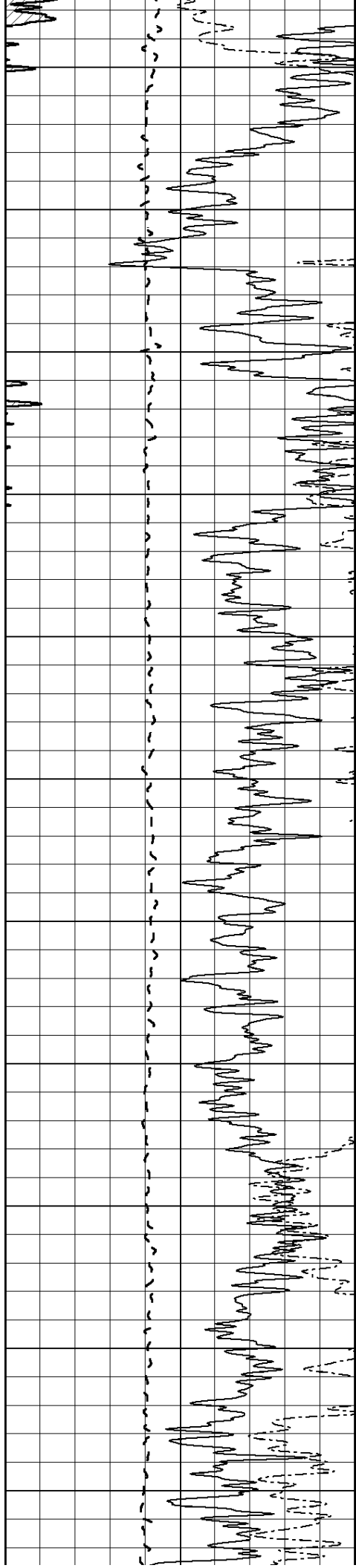


# MAIN PASS

Database File: 1333dildn.db  
 Dataset Pathname: pass3.3  
 Presentation Format: \_dil2  
 Dataset Creation: Sat Dec 10 04:06:07 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
-100	SP (mV)	100	0	RILD (Ohm-m)	50
0	RWA (Ohm-m)	1	1000	CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500





450

500

550

600

650

700

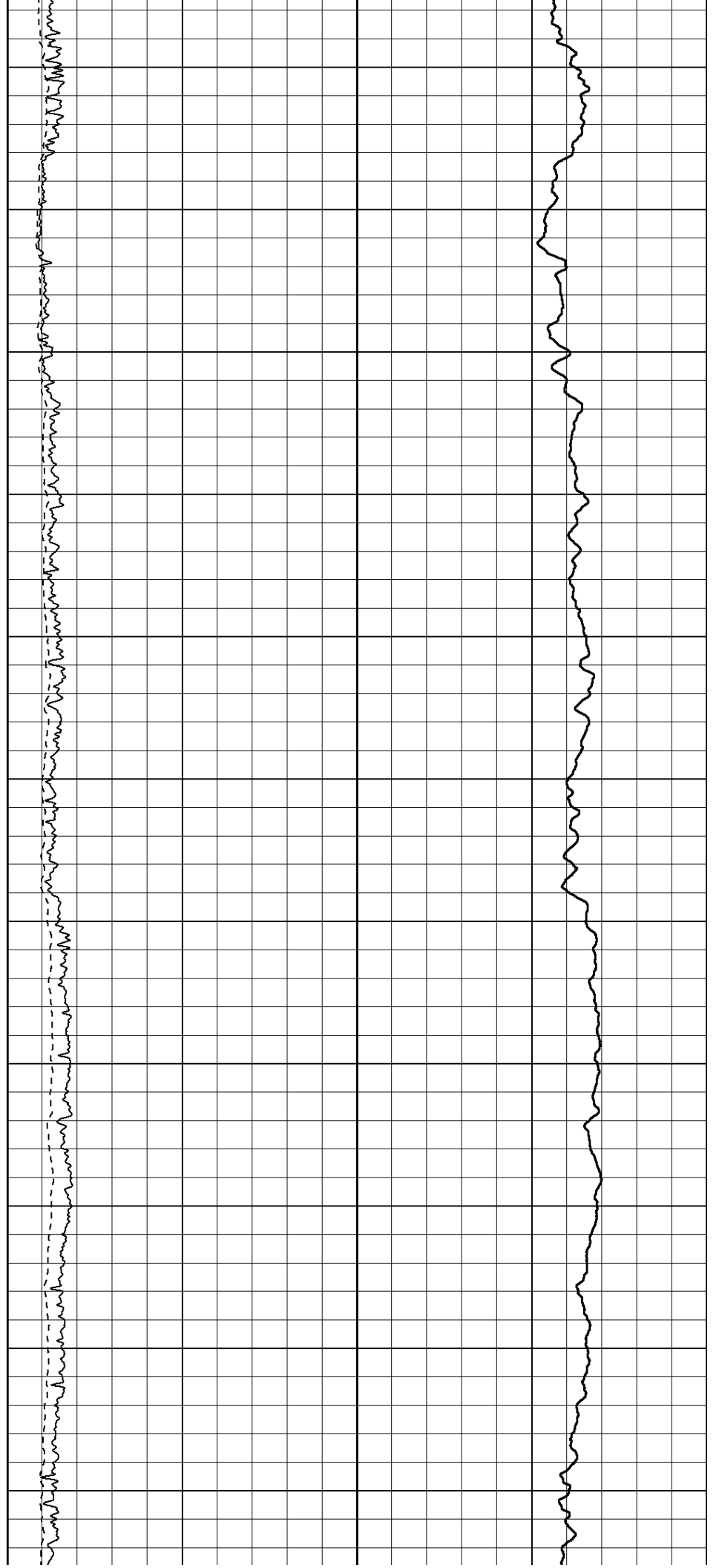
750

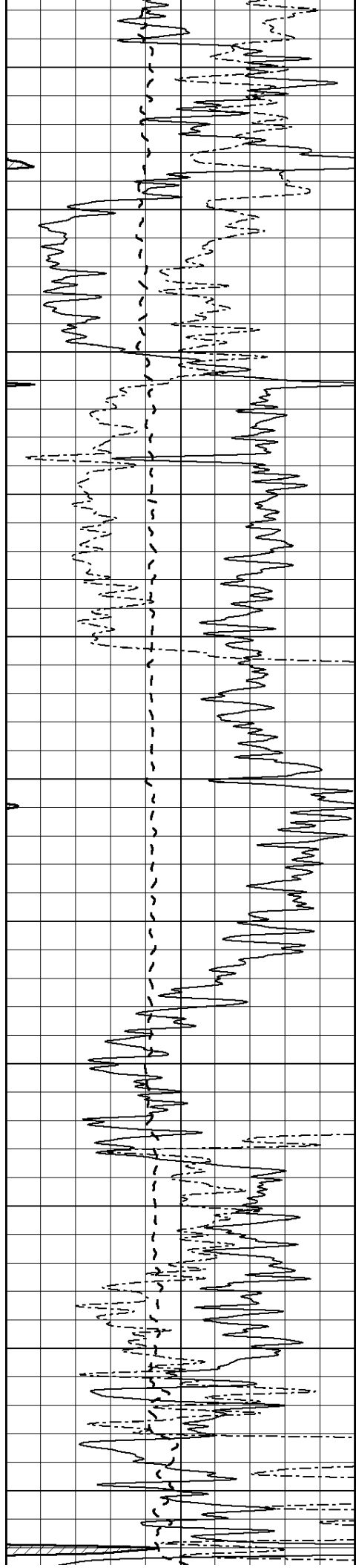
800

850

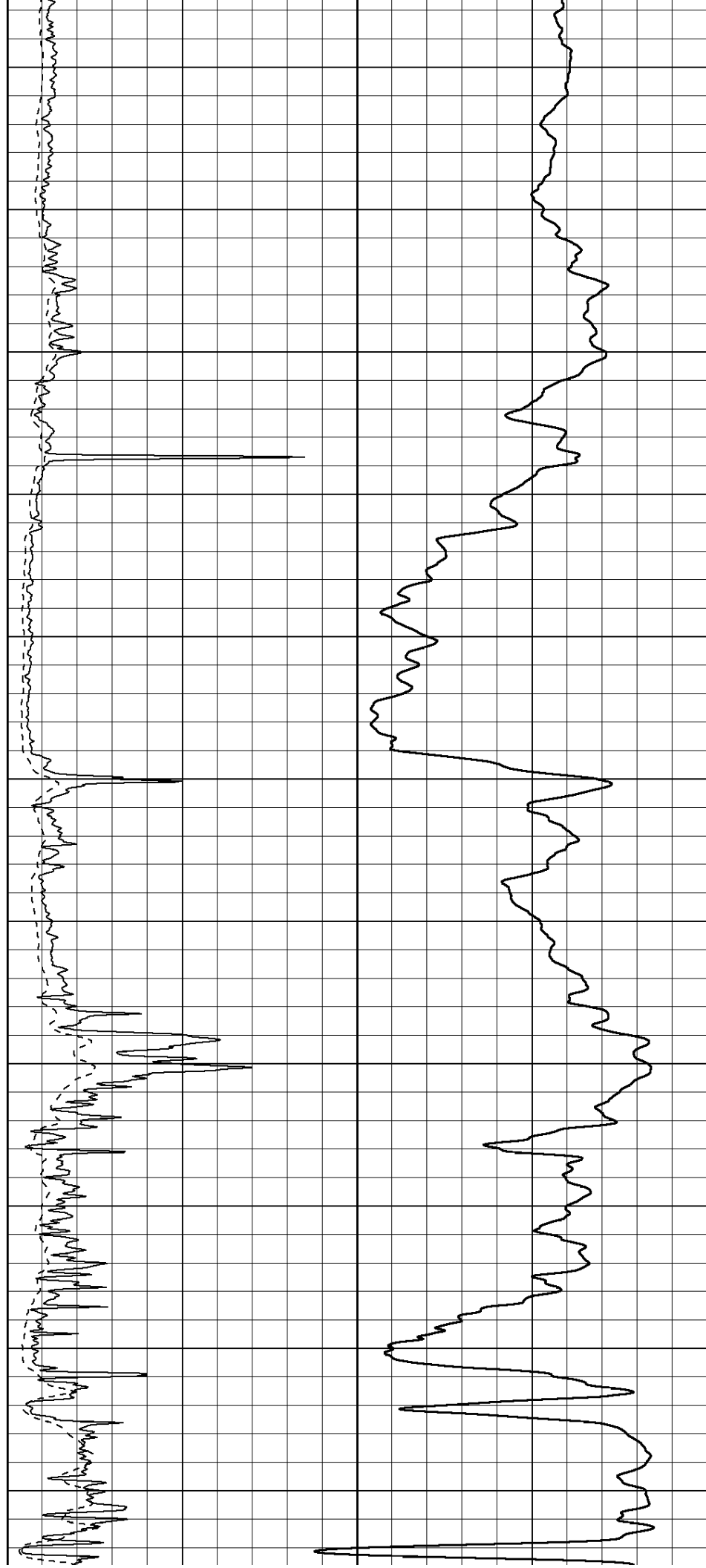
900

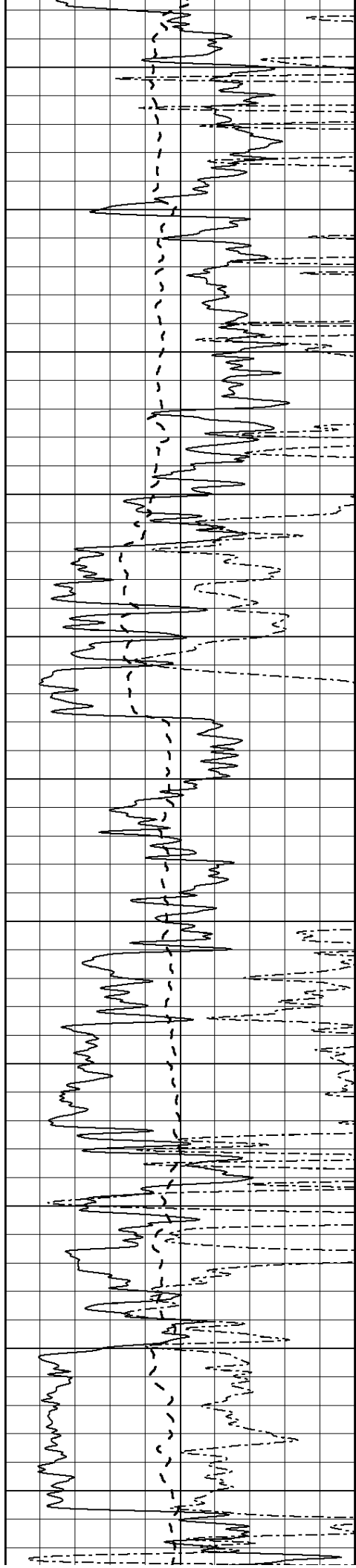
950





1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500





1550

1600

1650

1700

1750

1800

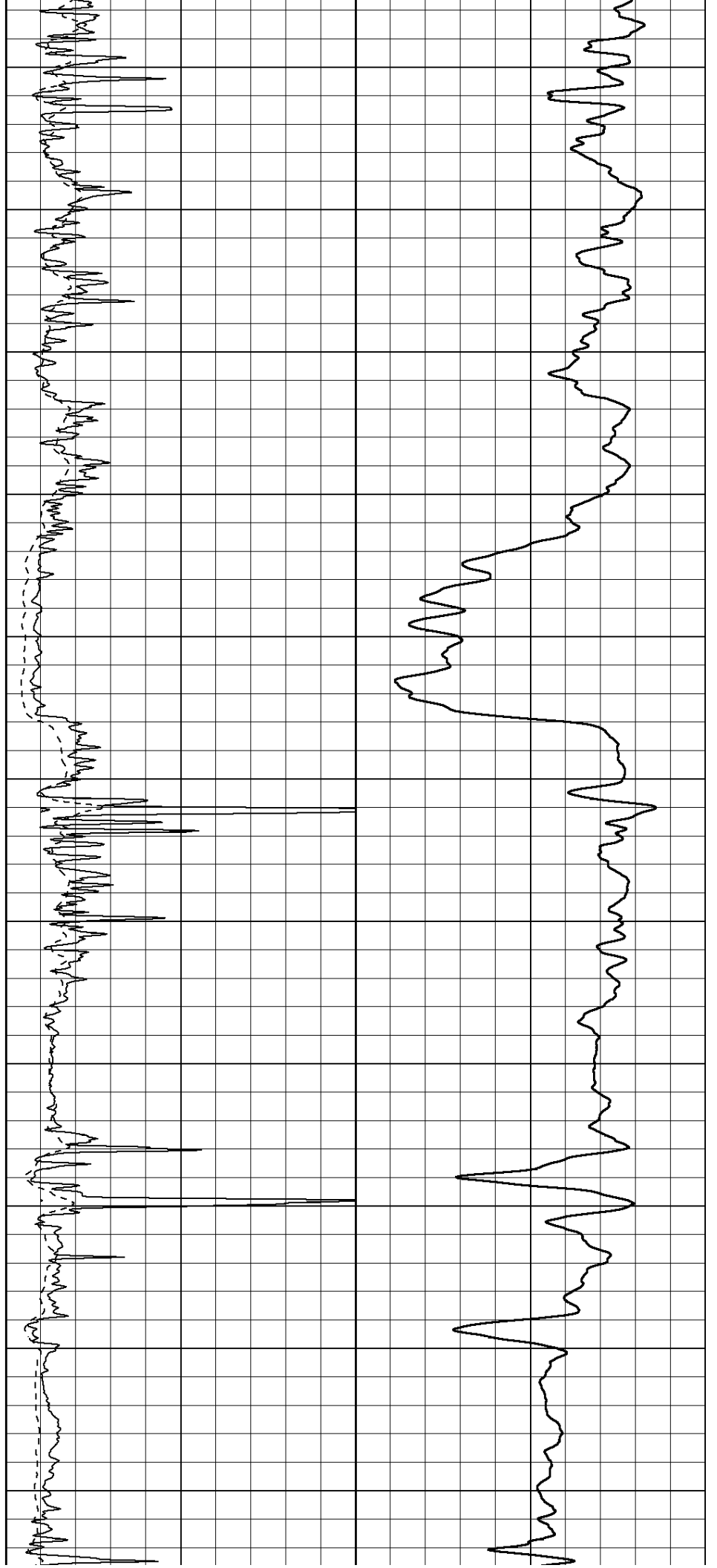
1850

1900

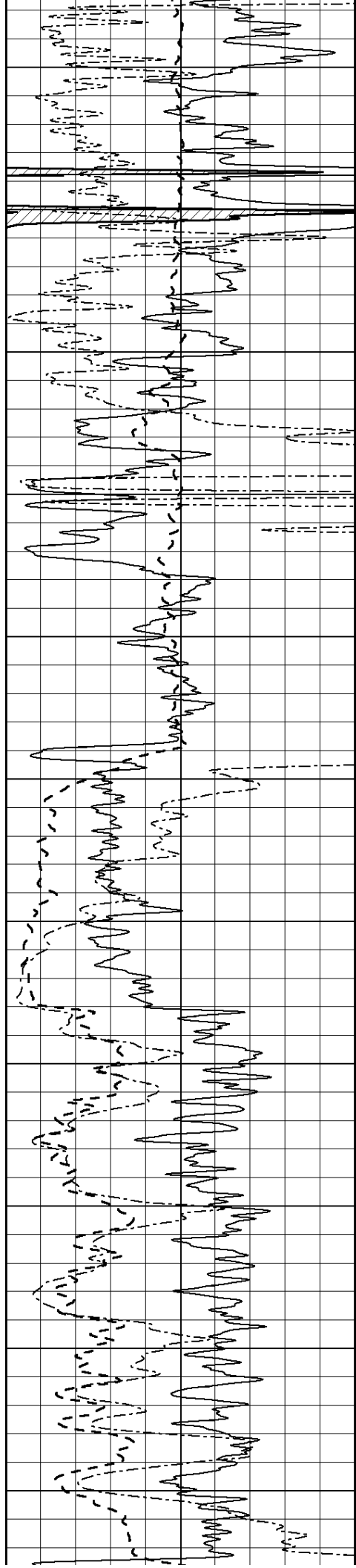
1950

2000

2050







2100

2150

2200

2250

2300

2350

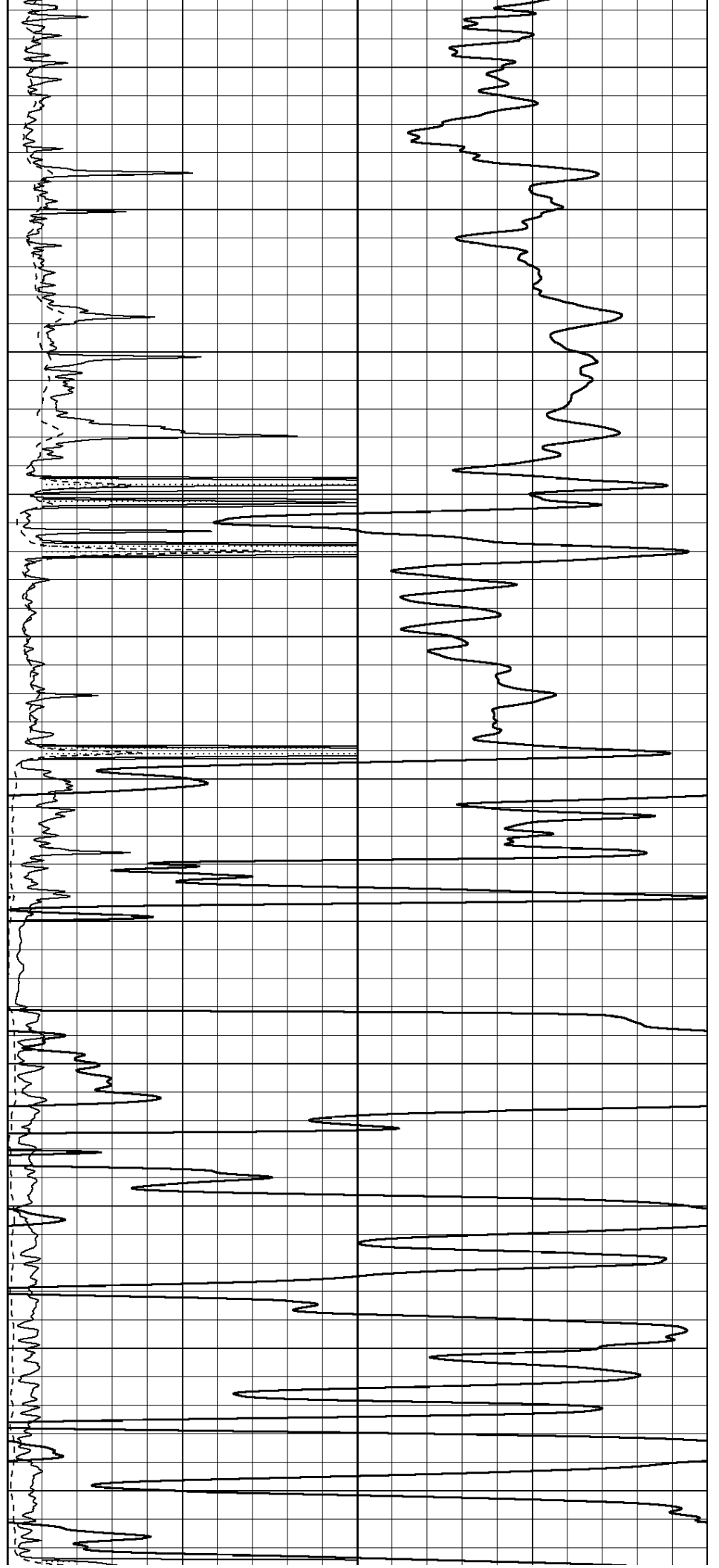
2400

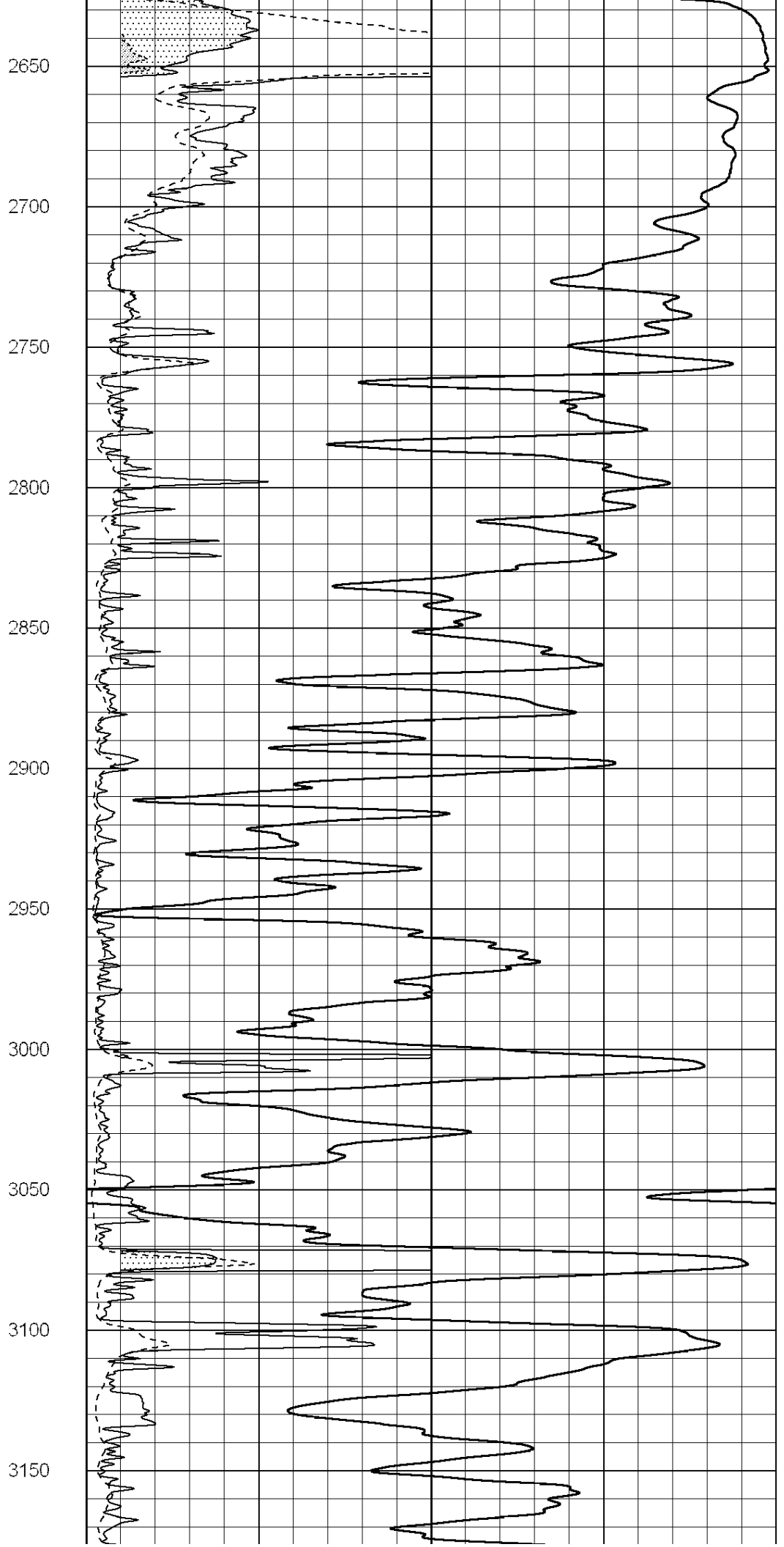
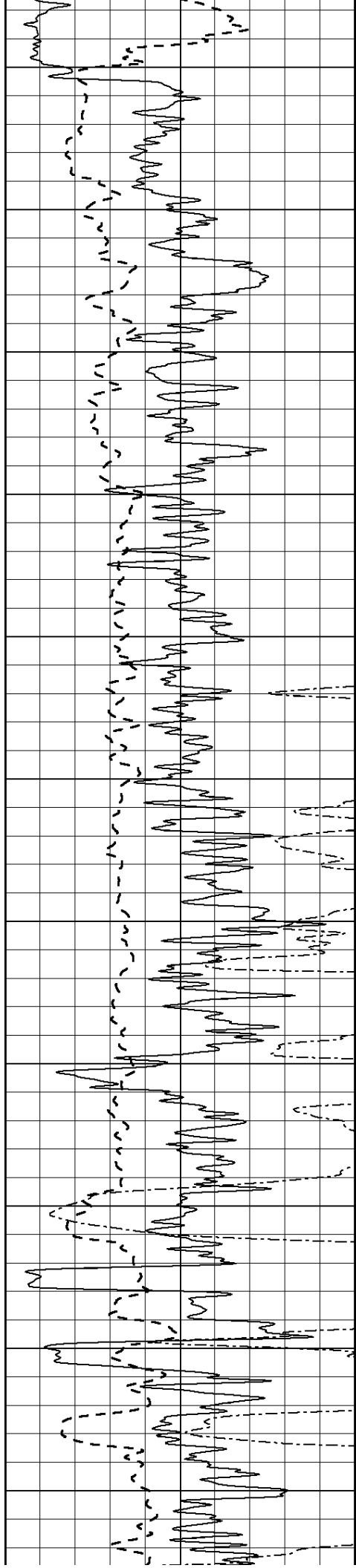
2450

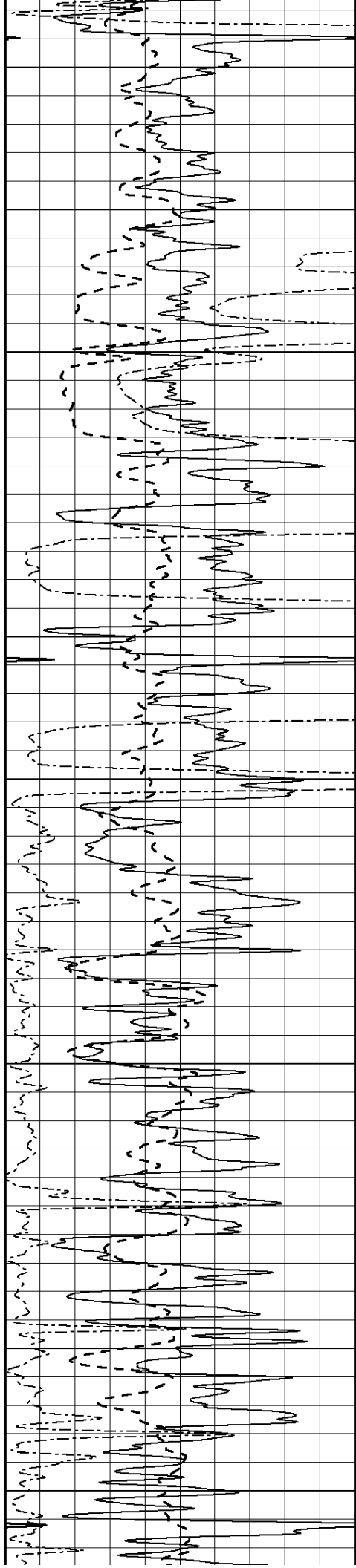
2500

2550

2600







3200

3250

3300

3350

3400

3450

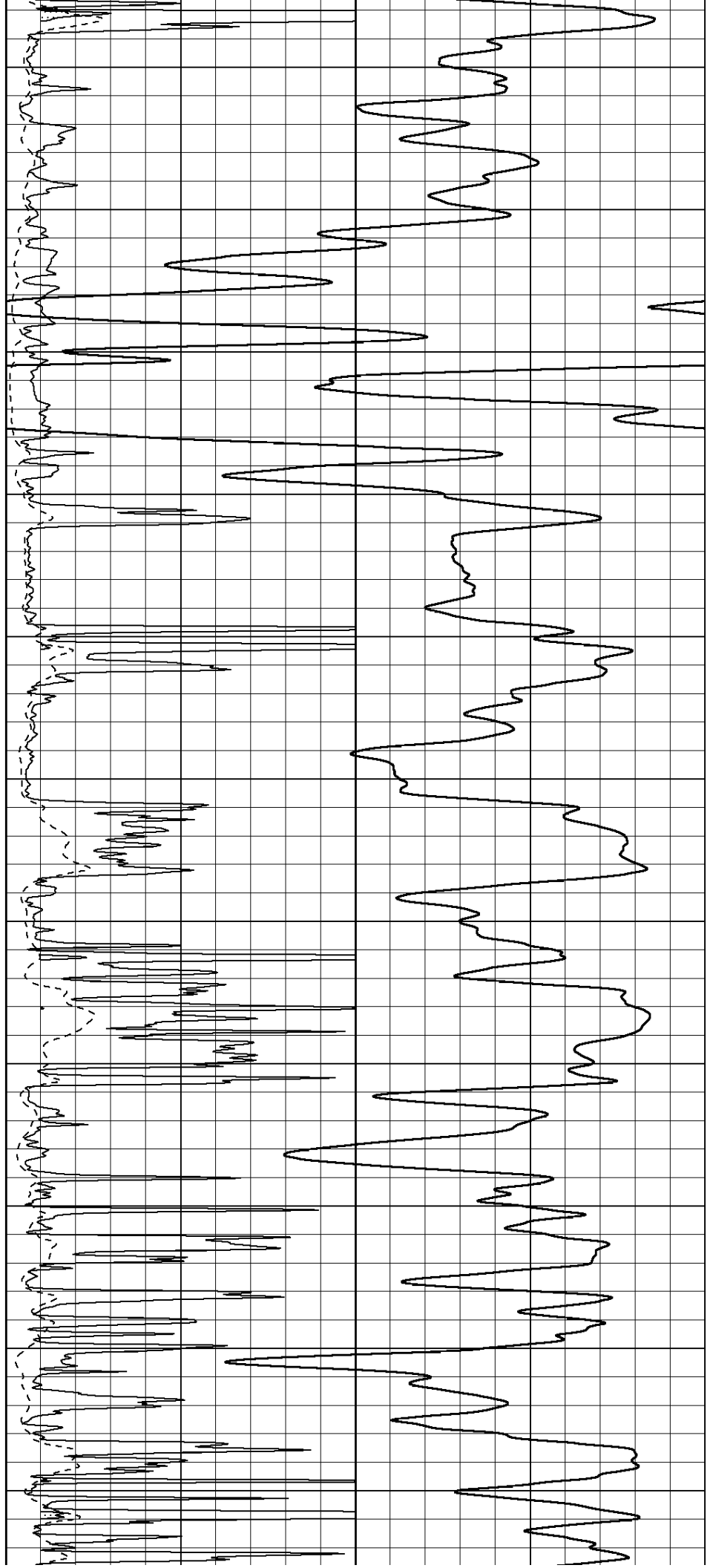
3500

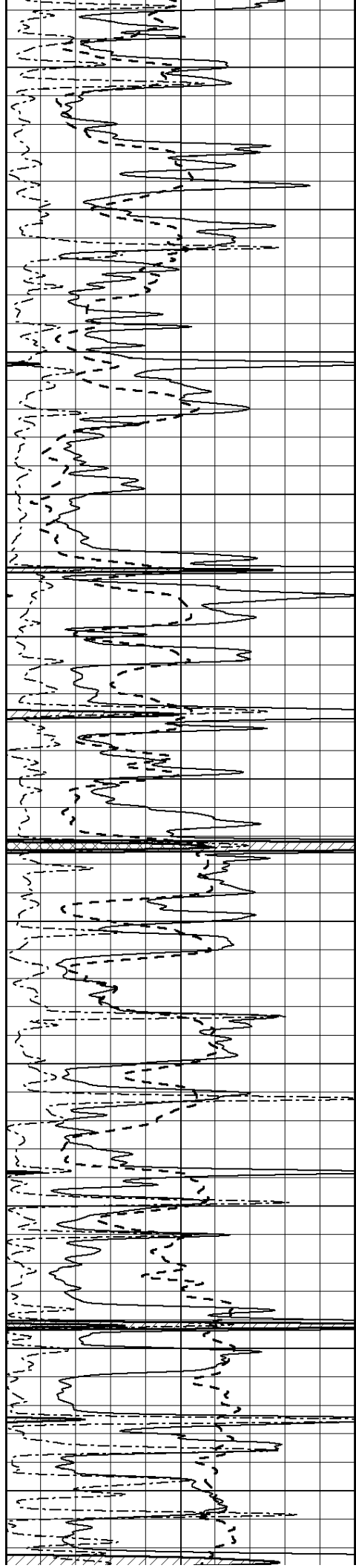
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

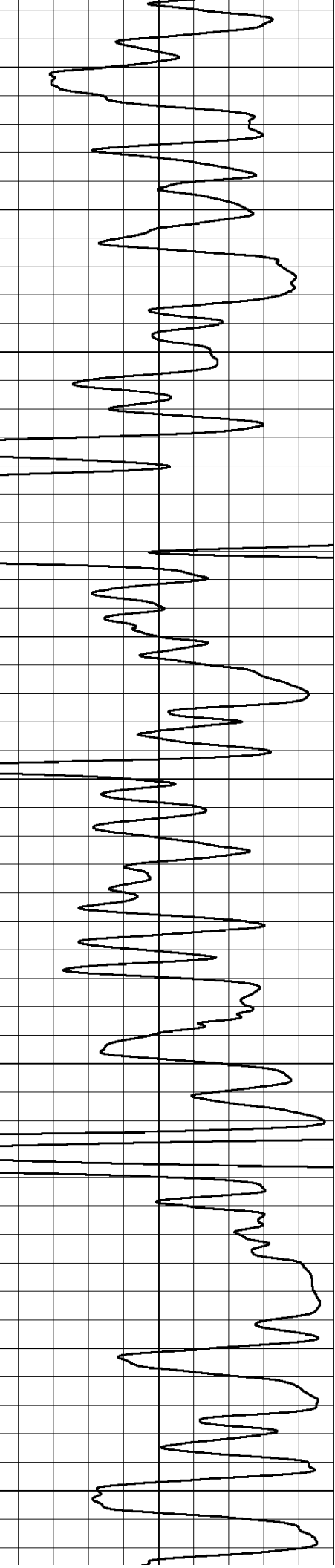
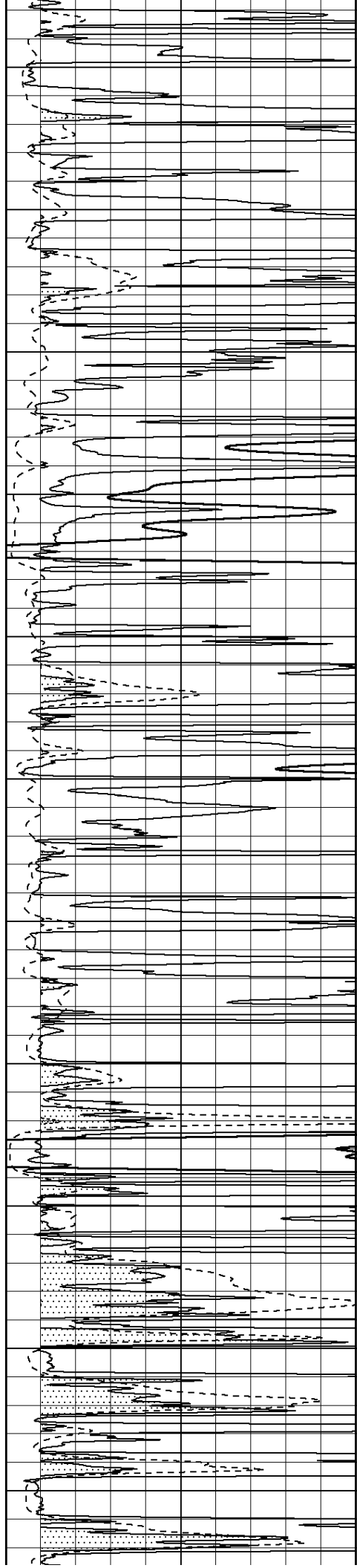
4050

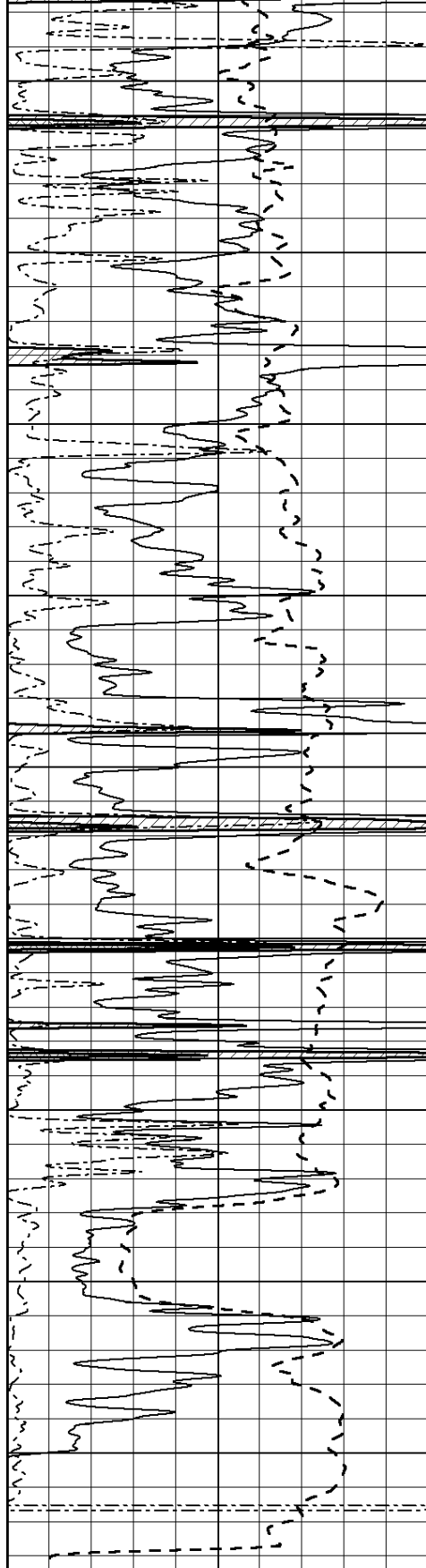
4100

4150

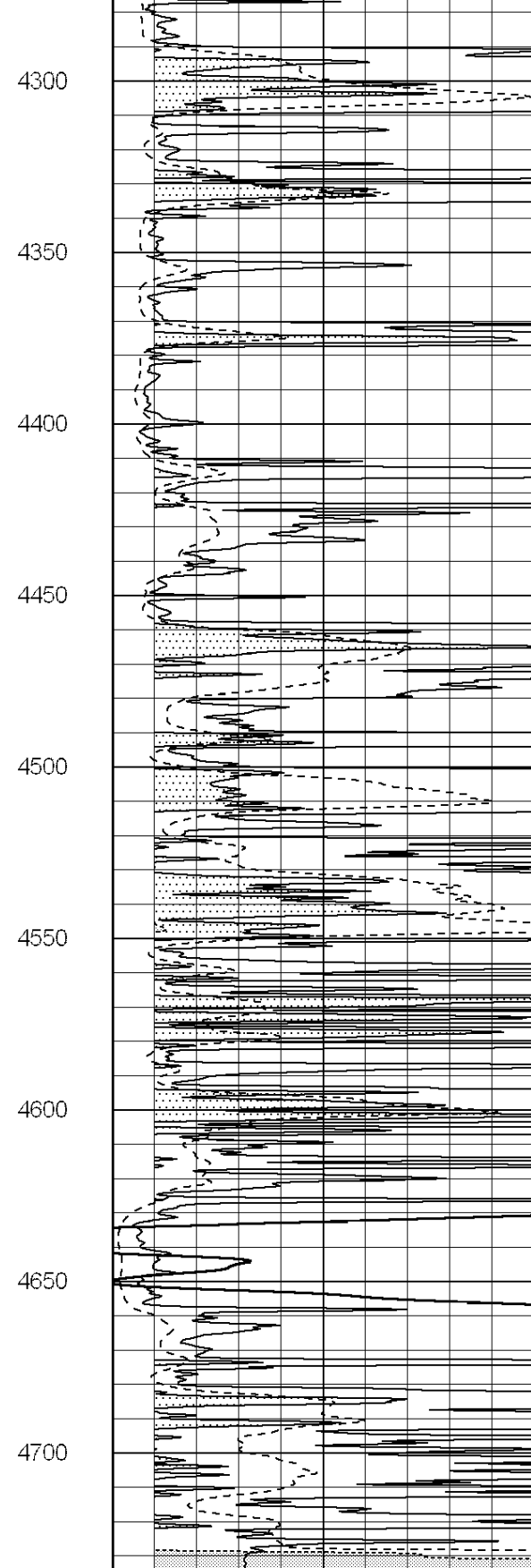
4200

4250

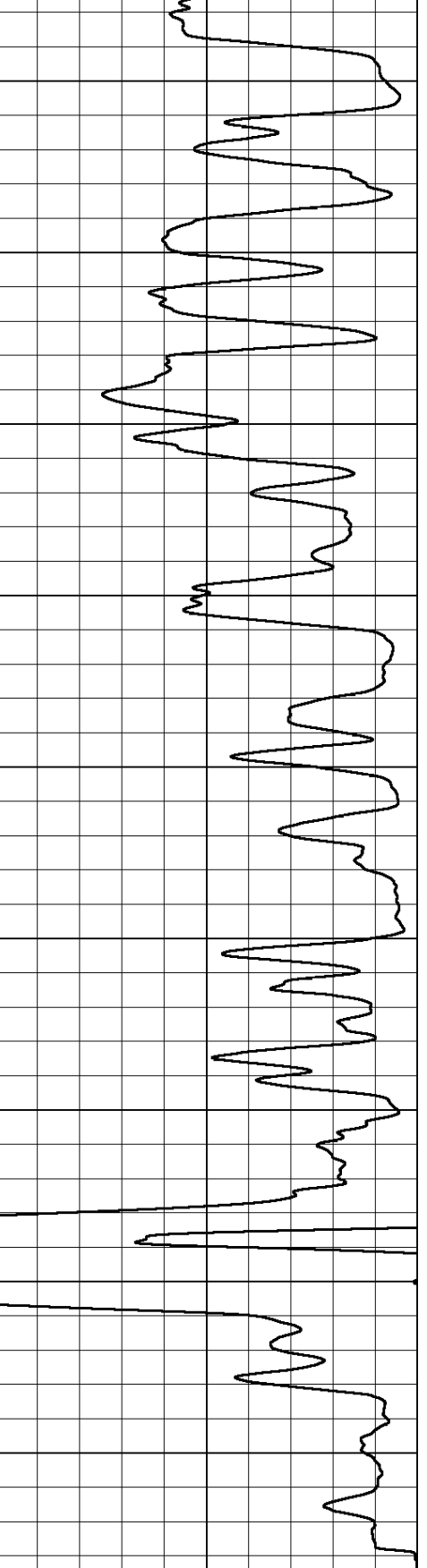




0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

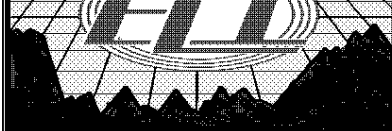


0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho/m)	0



50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



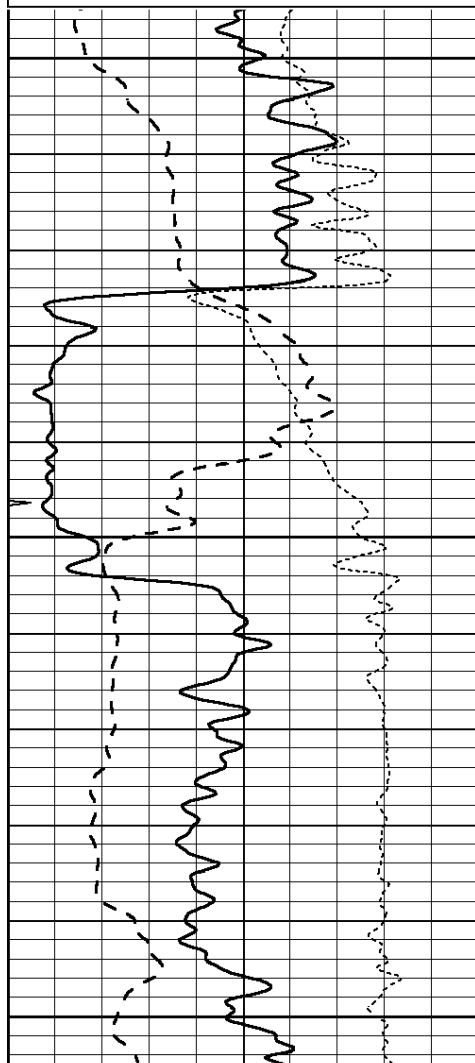


# ANHYDRITE

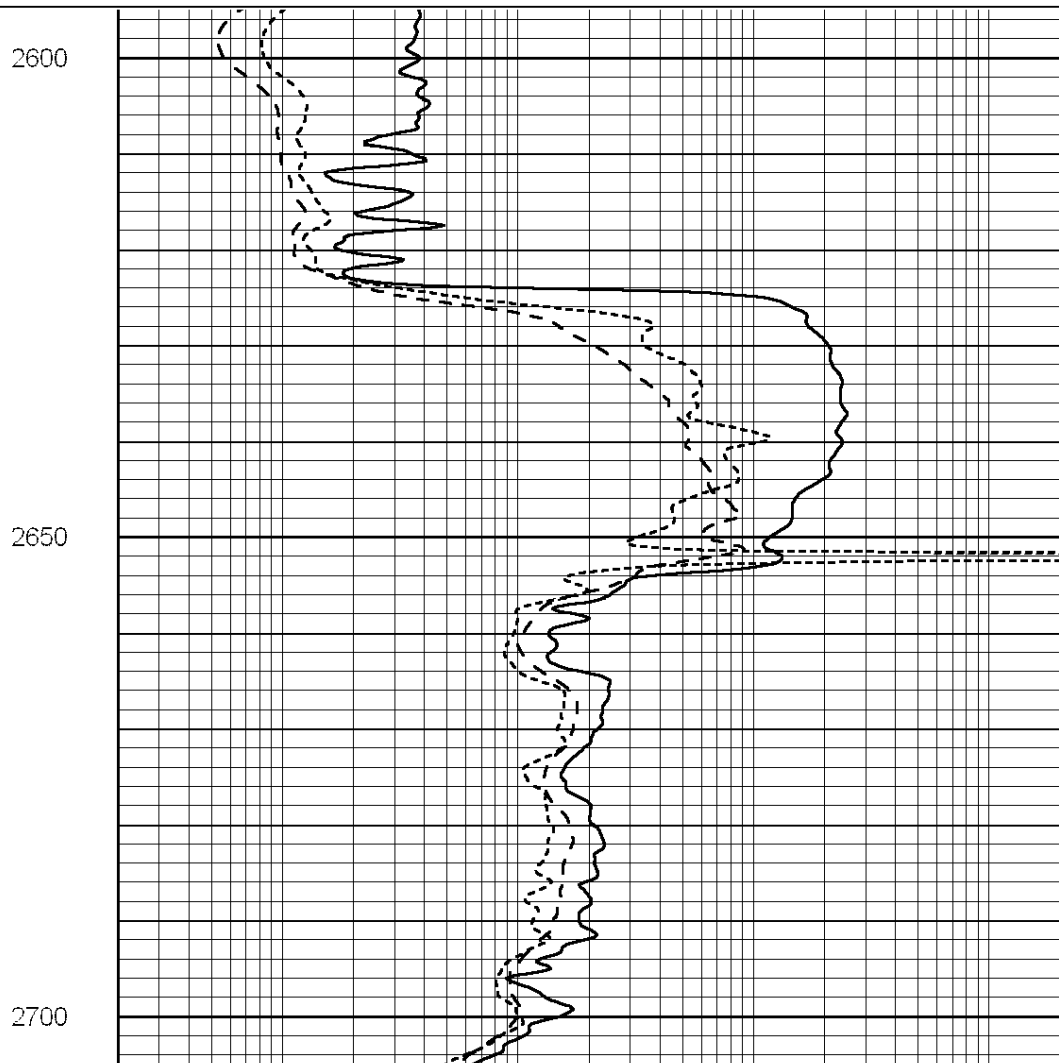
Database File: 1333dildn.db  
 Dataset Pathname: pass3.2  
 Presentation Format: \_dil  
 Dataset Creation: Sat Dec 10 03:41:11 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

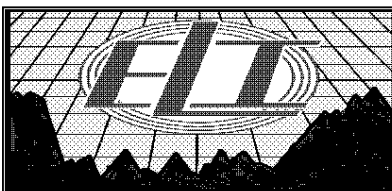
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

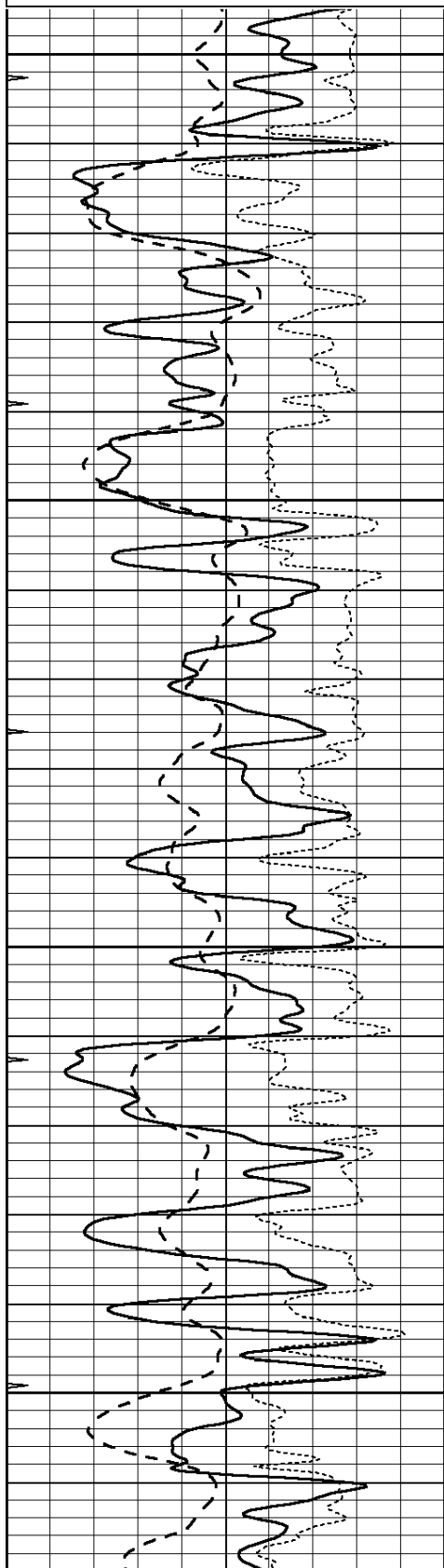


# MAIN PASS

Database File: 1333dildn.db  
 Dataset Pathname: pass3.1  
 Presentation Format: \_dil  
 Dataset Creation: Sat Dec 10 03:26:59 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

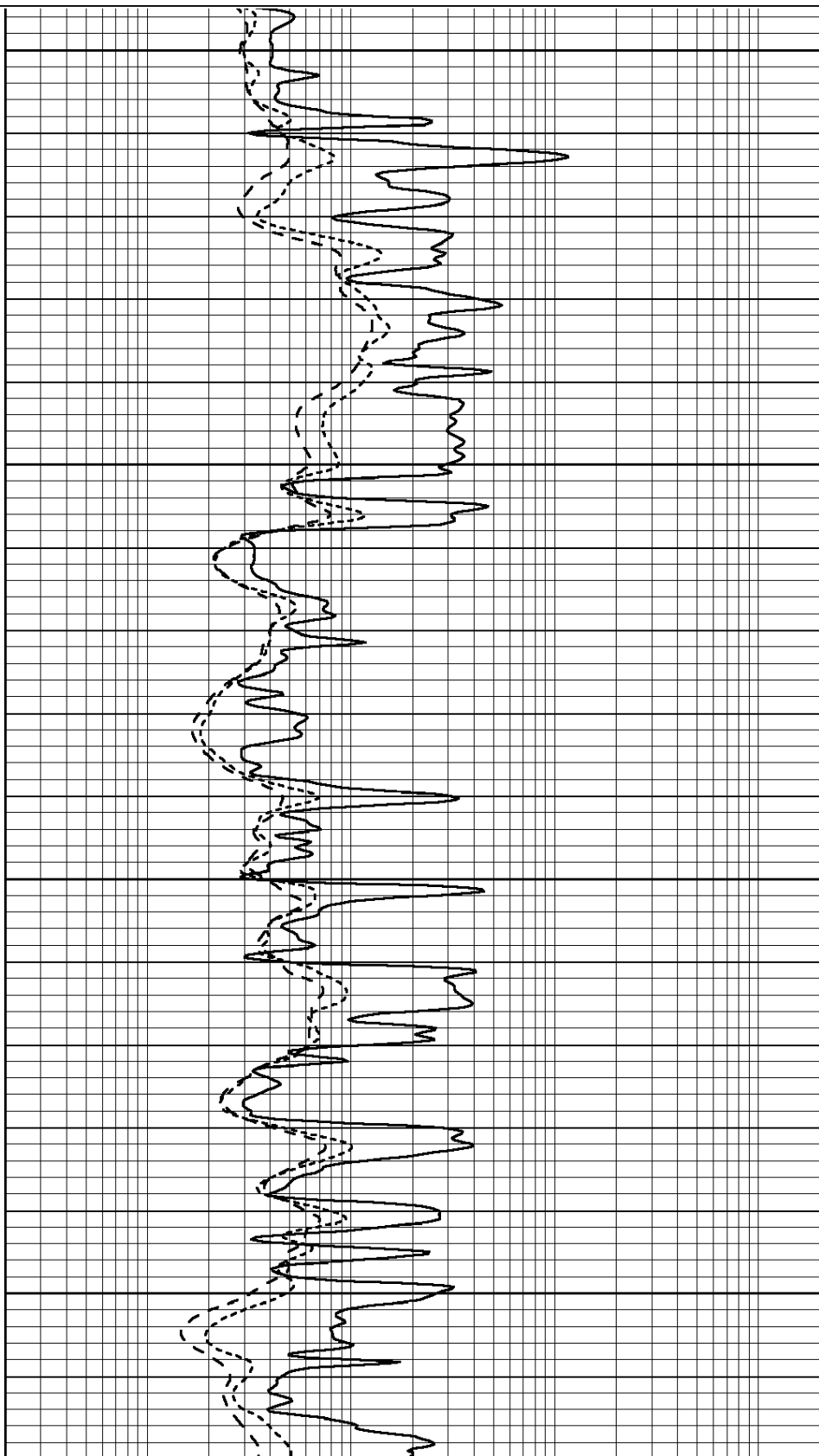


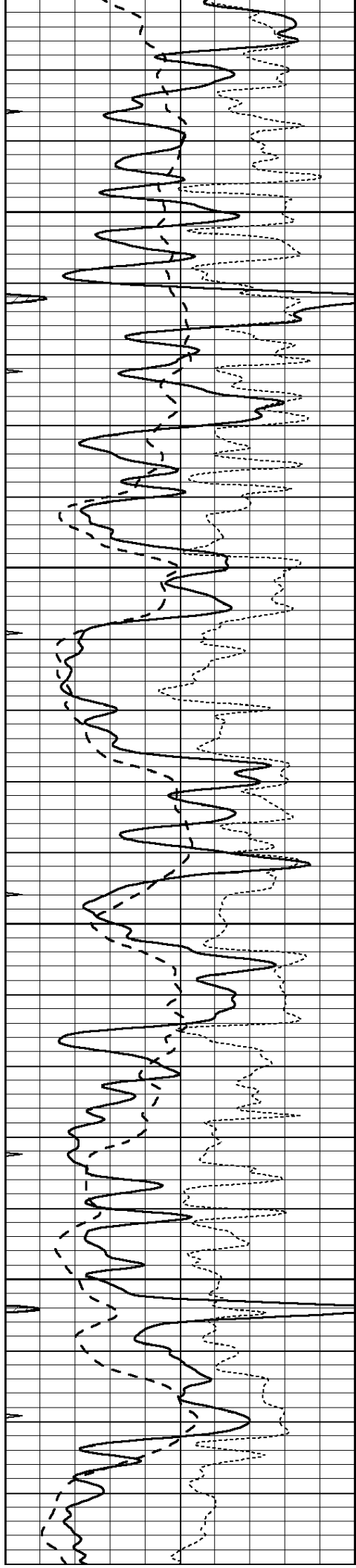
3500

3550

3600

3650



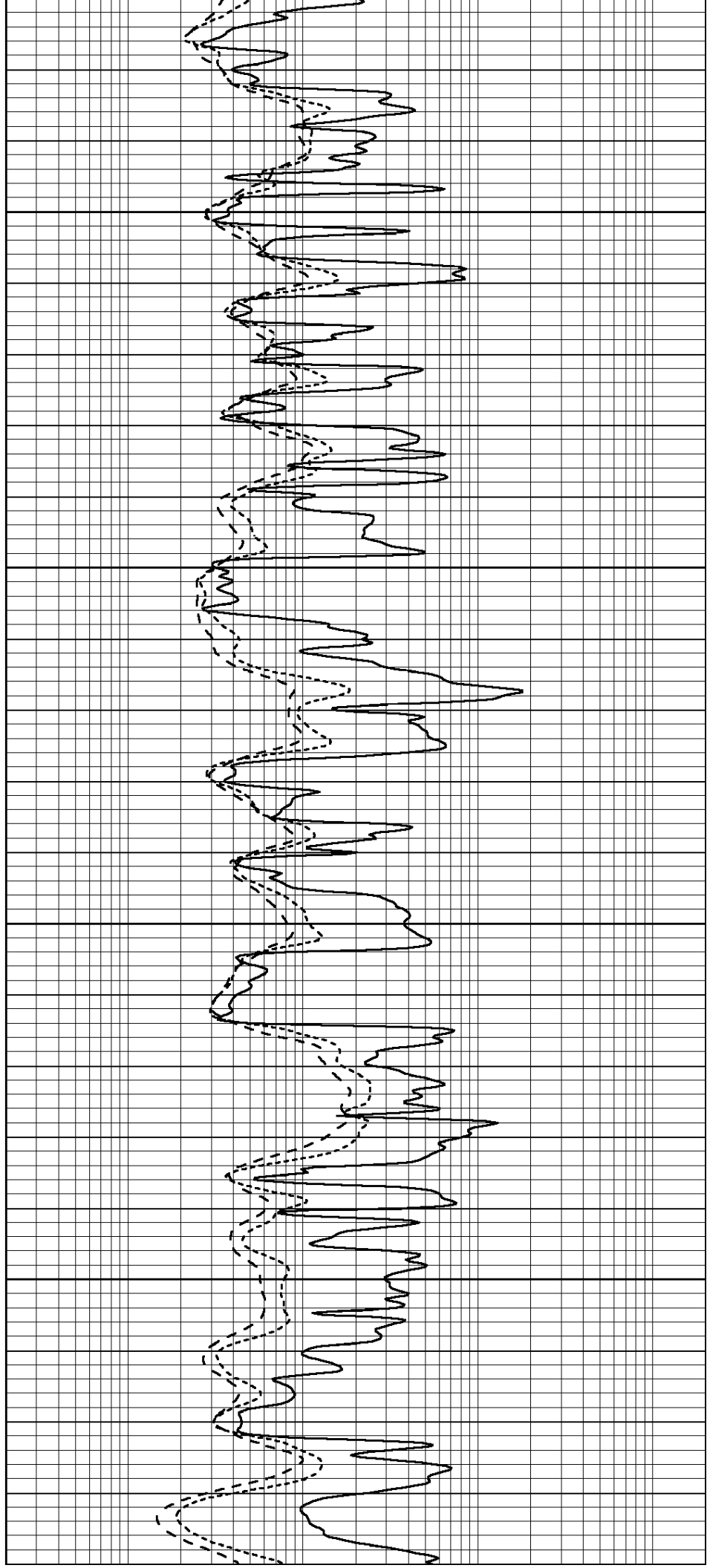


3700

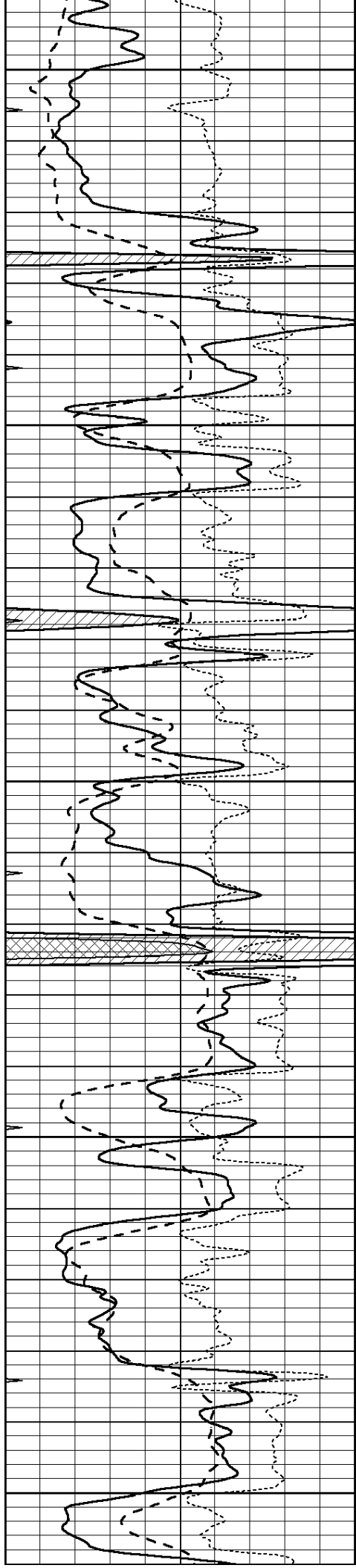
3750

3800

3850







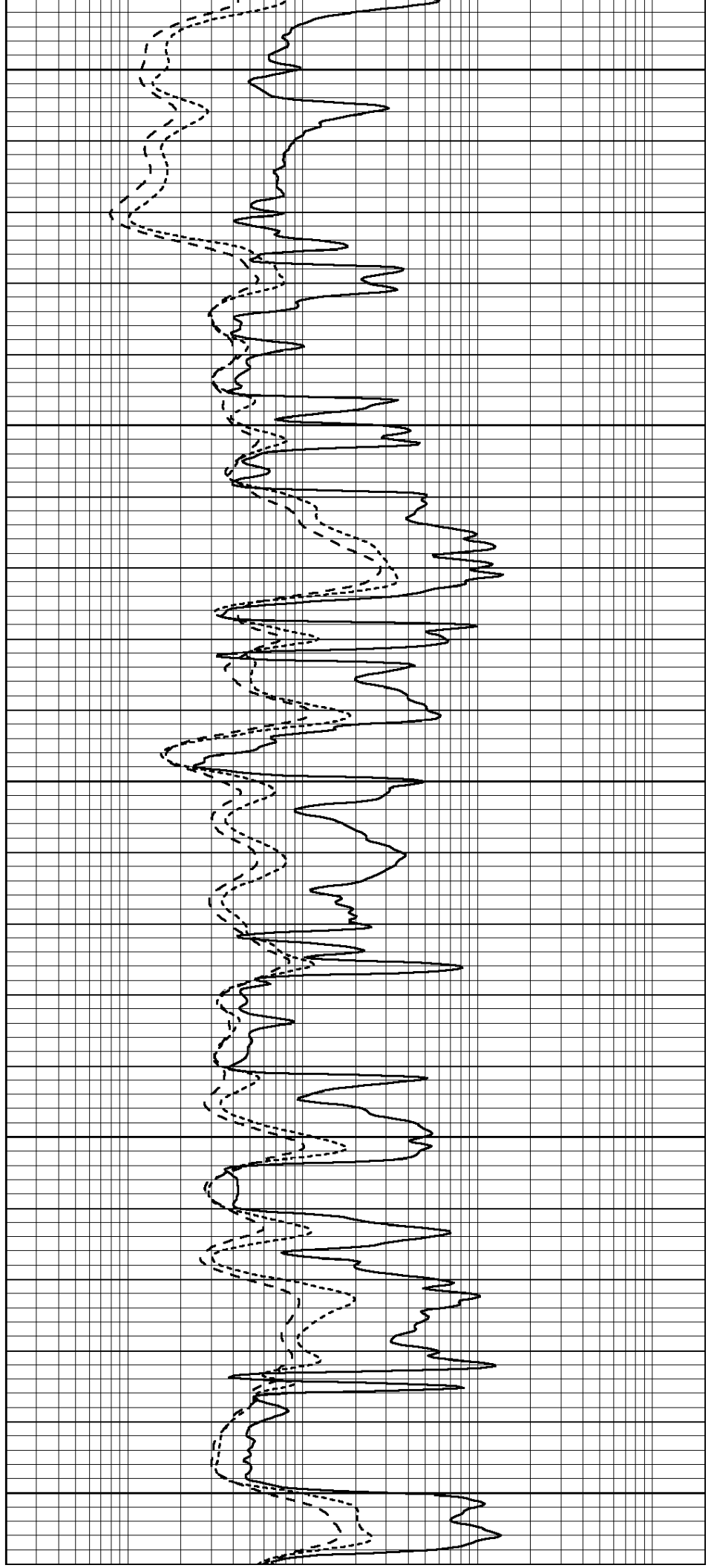
3900

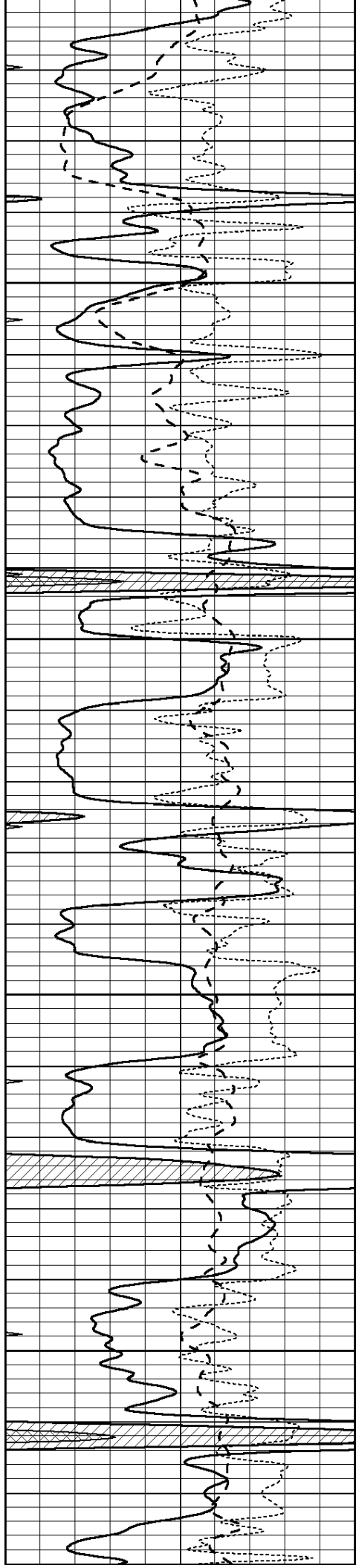
3950

4000

4050

4100



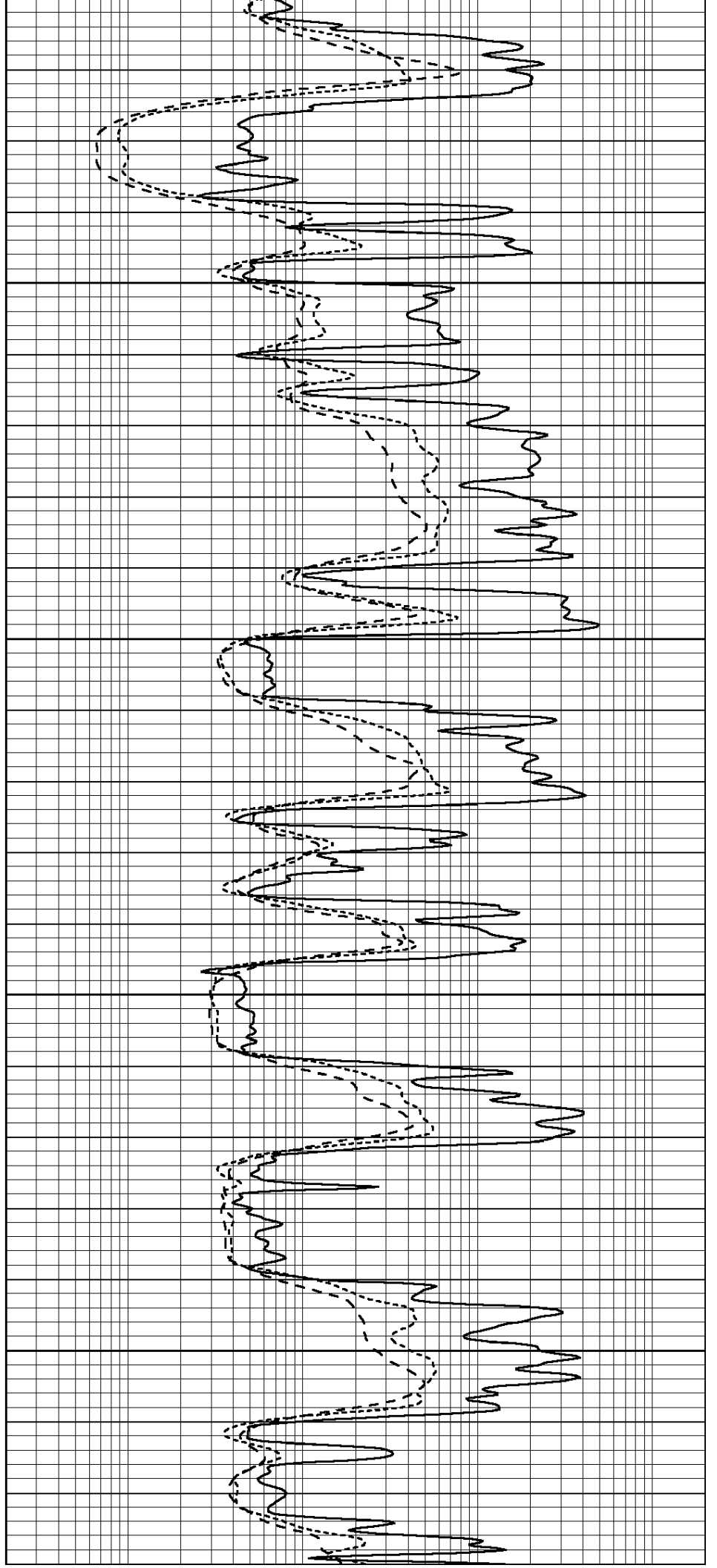


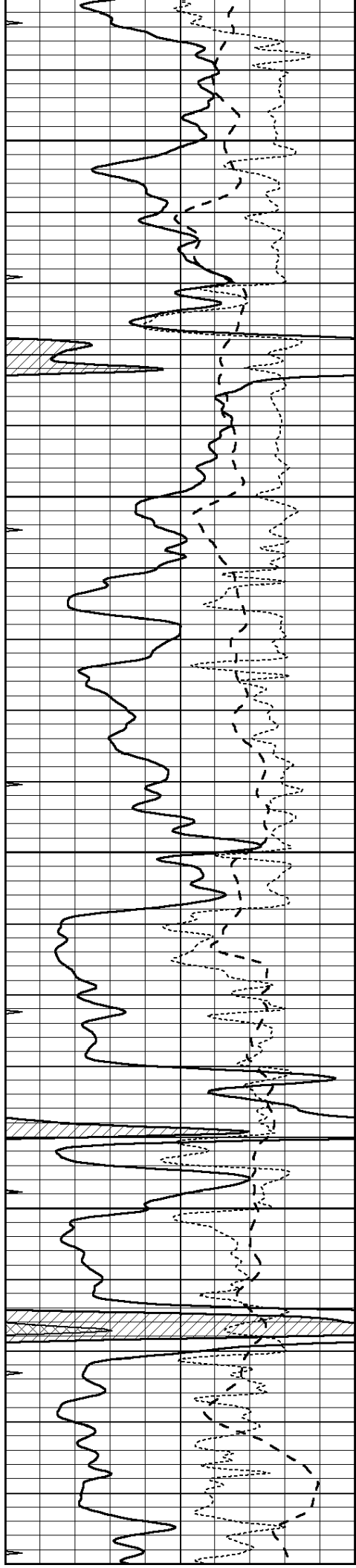
4150

4200

4250

4300





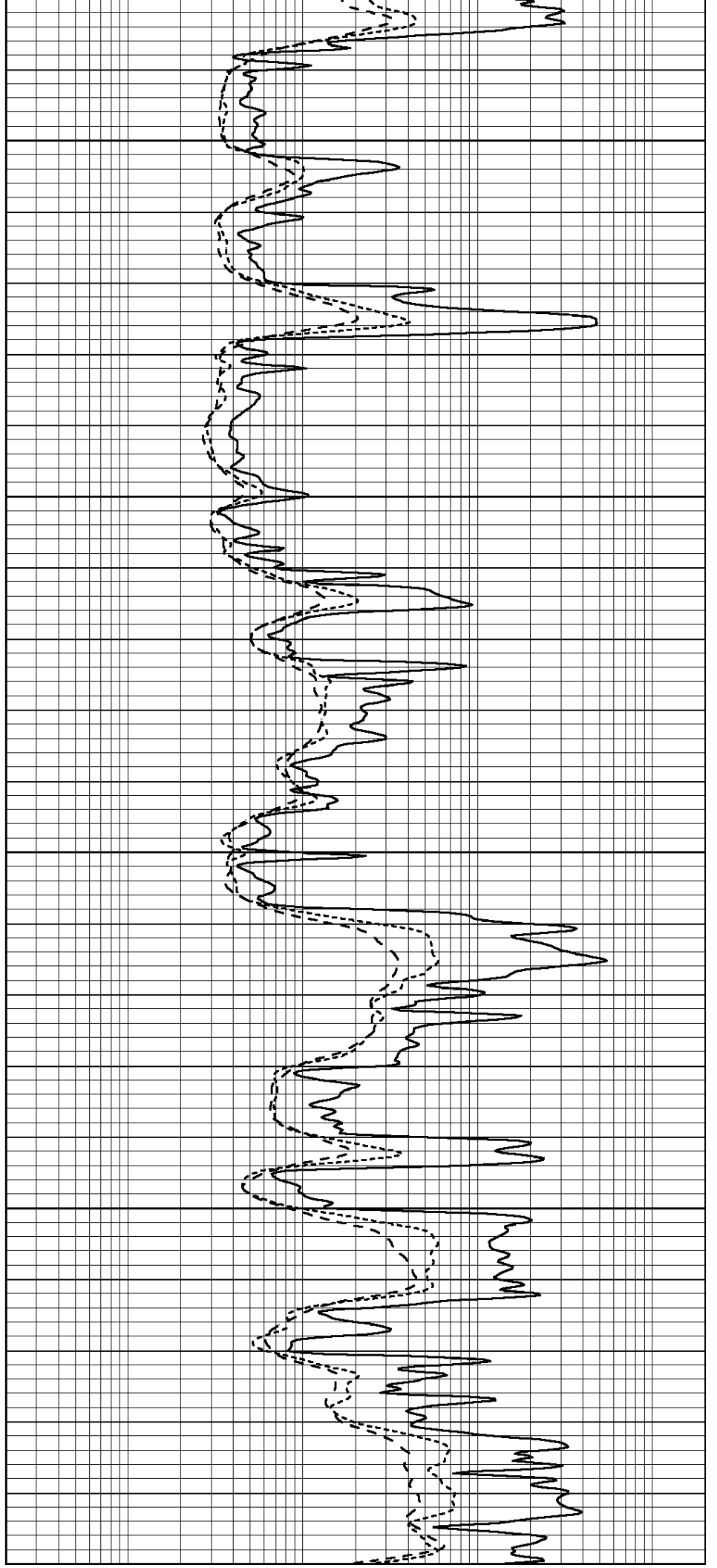
4350

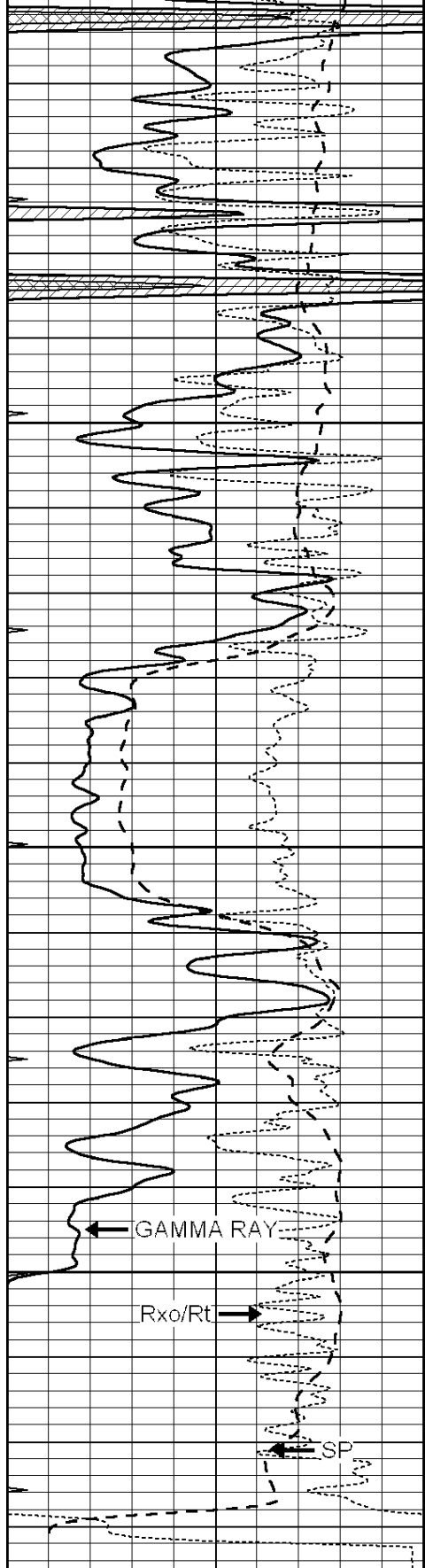
4400

4450

4500

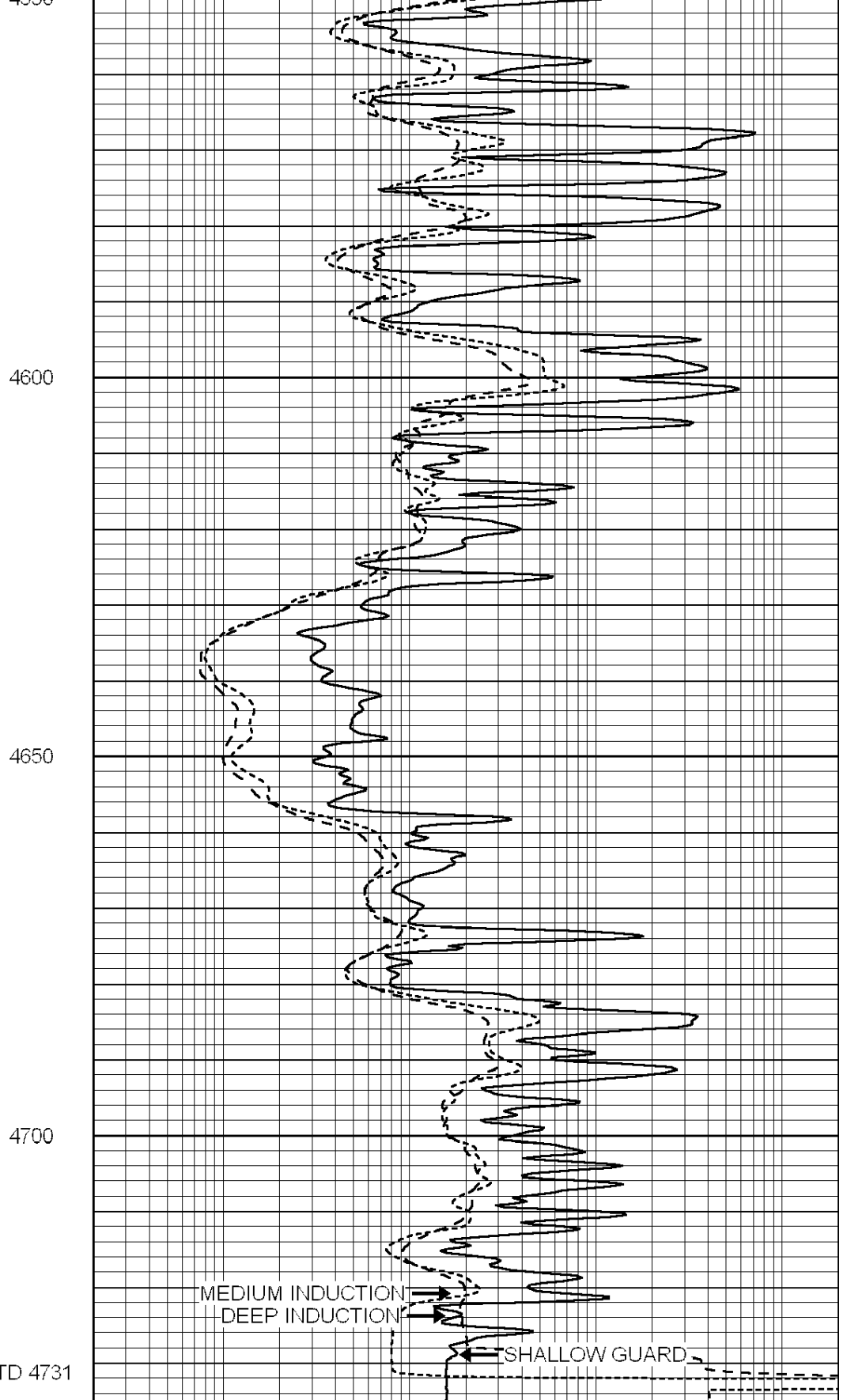
4550





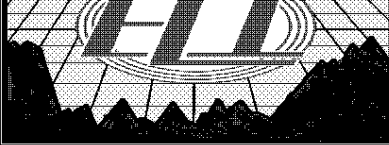
LTD 4731

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



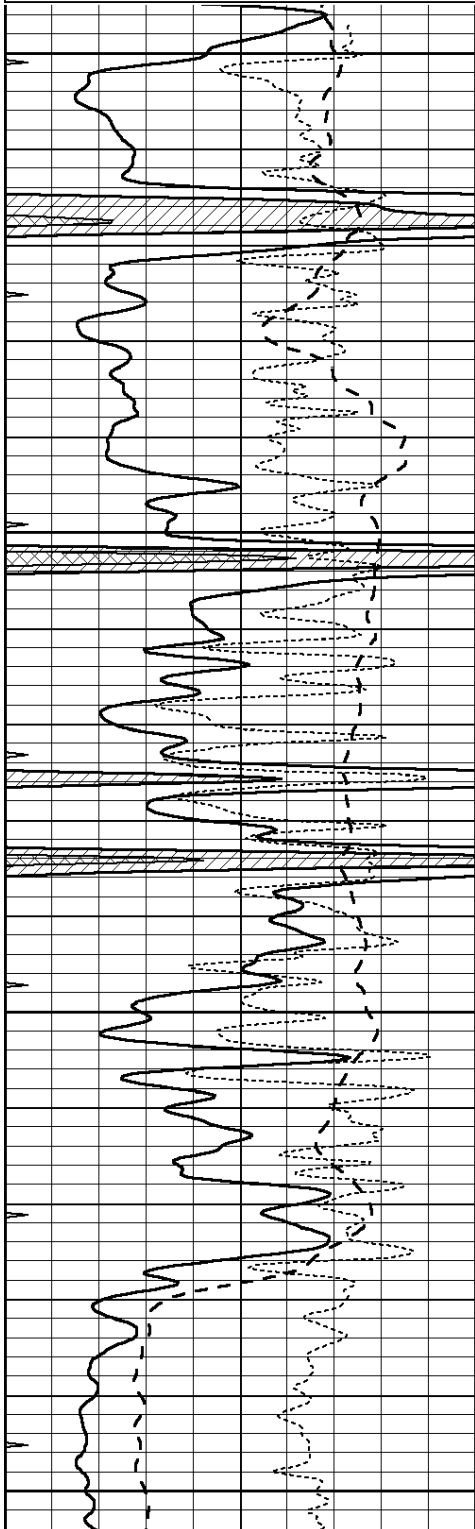


# REPEAT SECTION

Database File: 1333dildn.db  
Dataset Pathname: pass2.1  
Presentation Format: \_dil  
Dataset Creation: Sat Dec 10 03:40:09 2016 by Calc SOC 120430  
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

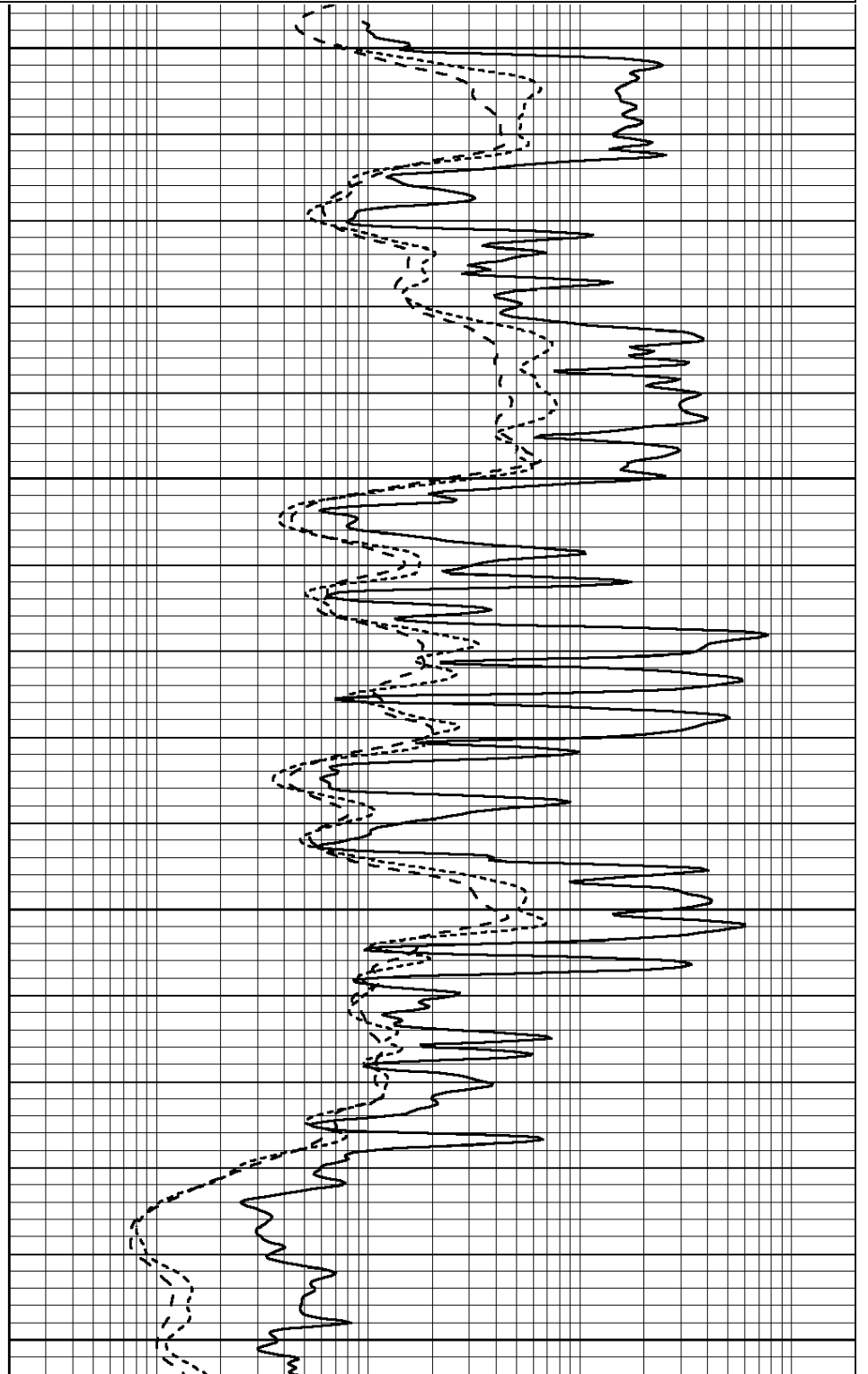


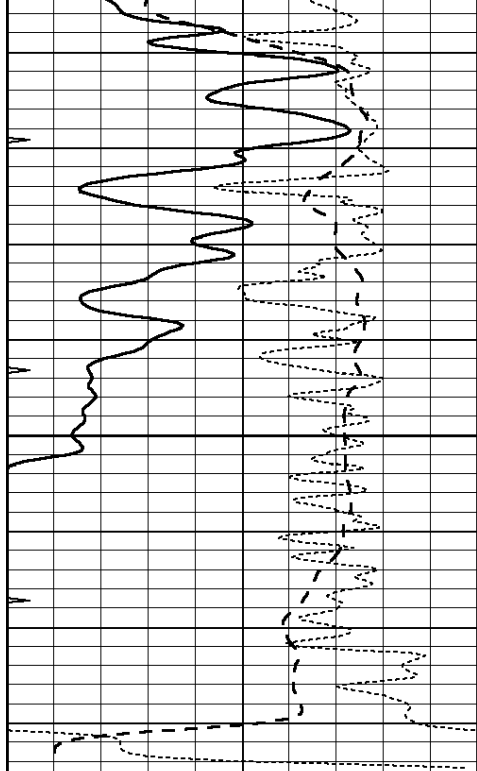
4500

4550

4600

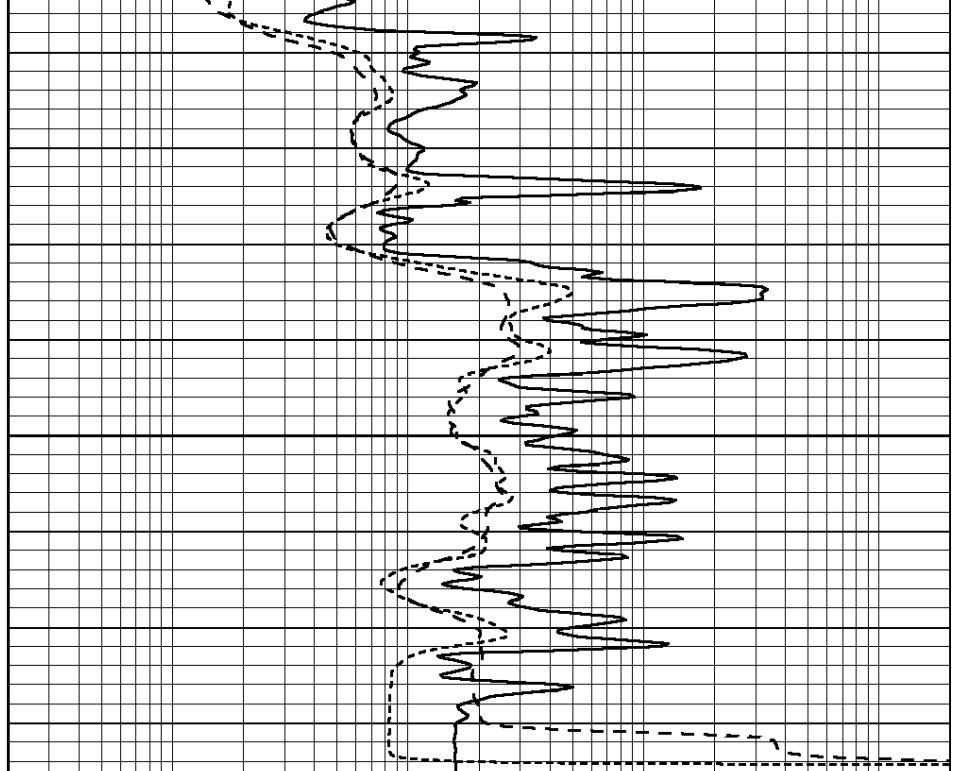
4650





4700

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

### Calibration Report

Database File: 1333dildn.db  
 Dataset Pathname: pass3.1  
 Dataset Creation: Sat Dec 10 03:26:59 2016 by Calc SOC 120430

### Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Thu Nov 03 11:12:55 2016  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

#### Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	625.000	0.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-45.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

#### Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		

After Survey Verification		Readings					Targets		Results	
		Zero	Cal		Zero	Cal		m'	b'	
Deep		0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
Medium		0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
LL3			1.000	Ohm-m		1.000	Ohm-m			
			0.000	Ohm-m		0.000	Ohm-m			
			1.000	mmho-m		1.000	mmho-m			

Litho Density Calibration Report  
Serial: 004N      Model: PRB

Master Calibration		Performed Fri May 30 11:01:00 2014						
		Background	Magnesium	Aluminum		Sandstone		
Window 1		1378.8	10804.6	3492.0		12453.4		cps
Window 2		1262.4	9313.5	3076.7		10594.7		cps
Window 3		1077.6	5668.7	2076.0		6314.8		cps
Window 4		306.4	313.0	306.4		315.6		cps
Long Space		0.0	8051.0	1814.3		9332.3		cps
Short Space		1.9	1706.1	1146.0		1707.6		cps
Rho			1.7100	2.5900		1.3800		g/cc
Pe			0.0000	2.5700		1.5500		
Rib Angle	: 45.0		Rib Slope	: 1.002		Density/Spine Ratio	: 0.571	
Spine Angle	: 75.0		Spine Slope	: 3.745		Spine Intercept	: -18.9	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969						
Window 1		0.0	0.0	0.0		0.0		cps
Window 2		0.0	0.0	0.0		0.0		cps
Window 3		0.0	0.0	0.0		0.0		cps
Window 4		0.0	0.0	0.0		0.0		cps
Long Space		0.0	0.0	0.0		0.0		cps
Short Space		0.0	0.0	0.0		0.0		cps
Measured Rho			0.0000	0.0000		0.0000		g/cc
Measured Correction			0.0000	0.0000		0.0000		g/cc
Measured Pe				0.0000		0.0000		

After Survey Verification		Performed Wed Dec 31 18:00:00 1969						
Window 1		0.0	0.0	0.0		0.0		cps
Window 2		0.0	0.0	0.0		0.0		cps
Window 3		0.0	0.0	0.0		0.0		cps
Window 4		0.0	0.0	0.0		0.0		cps
Long Space		0.0	0.0	0.0		0.0		cps
Short Space		0.0	0.0	0.0		0.0		cps
Measured Rho			0.0000	0.0000		0.0000		g/cc
Measured Correction			0.0000	0.0000		0.0000		g/cc
Measured Pe				0.0000		0.0000		

Compensated Neutron Calibration Report

Serial Number:      070808  
Tool Model:      Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

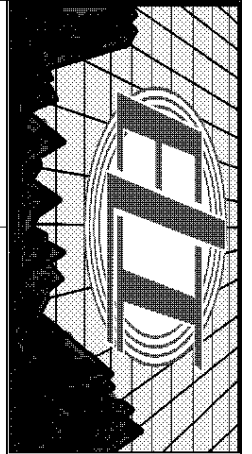
POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558		
Tool Model:	OPEN_GR		
Performed:	Mon Aug 22 01:00:15 2016		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	





MICRO LOG

Company ETERNITY EXPLORATION, LLC  
Well LANDENBURGER NO.1  
Field WILDCAT  
County THOMAS  
State KANSAS

Company ETERNITY EXPLORATION, LLC  
Well LANDENBURGER NO.1  
Field WILDCAT  
County THOMAS  
State KANSAS

Location: API # : 15-193-20980-00-00  
SEC 13 TWP 9S RGE 32W  
GROUND LEVEL Elevation 3027  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services CNL/CDL DIL/SONIC  
Elevation K.B. 3032 D.F. 3030 G.L. 3027

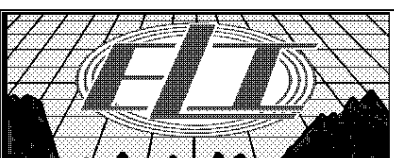
Date	12/10/16
Run Number	TWO
Depth Driller	4730
Depth Logger	4731
Bottom Logged Interval	4713
Top Log Interval	3800
Casing Driller	8 5/8"@24'
Casing Logger	246'
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/80
pH / Fluid Loss	9.4/8.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.0@80
Rmf @ Meas. Temp	.75@80
Rmc @ Meas. Temp	1.2@80
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.65@123
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	123 DEG/F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JUSTIN HENRICKSON
Witnessed By	KIM SHOEMAKER
	CARLO UGOLINI

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

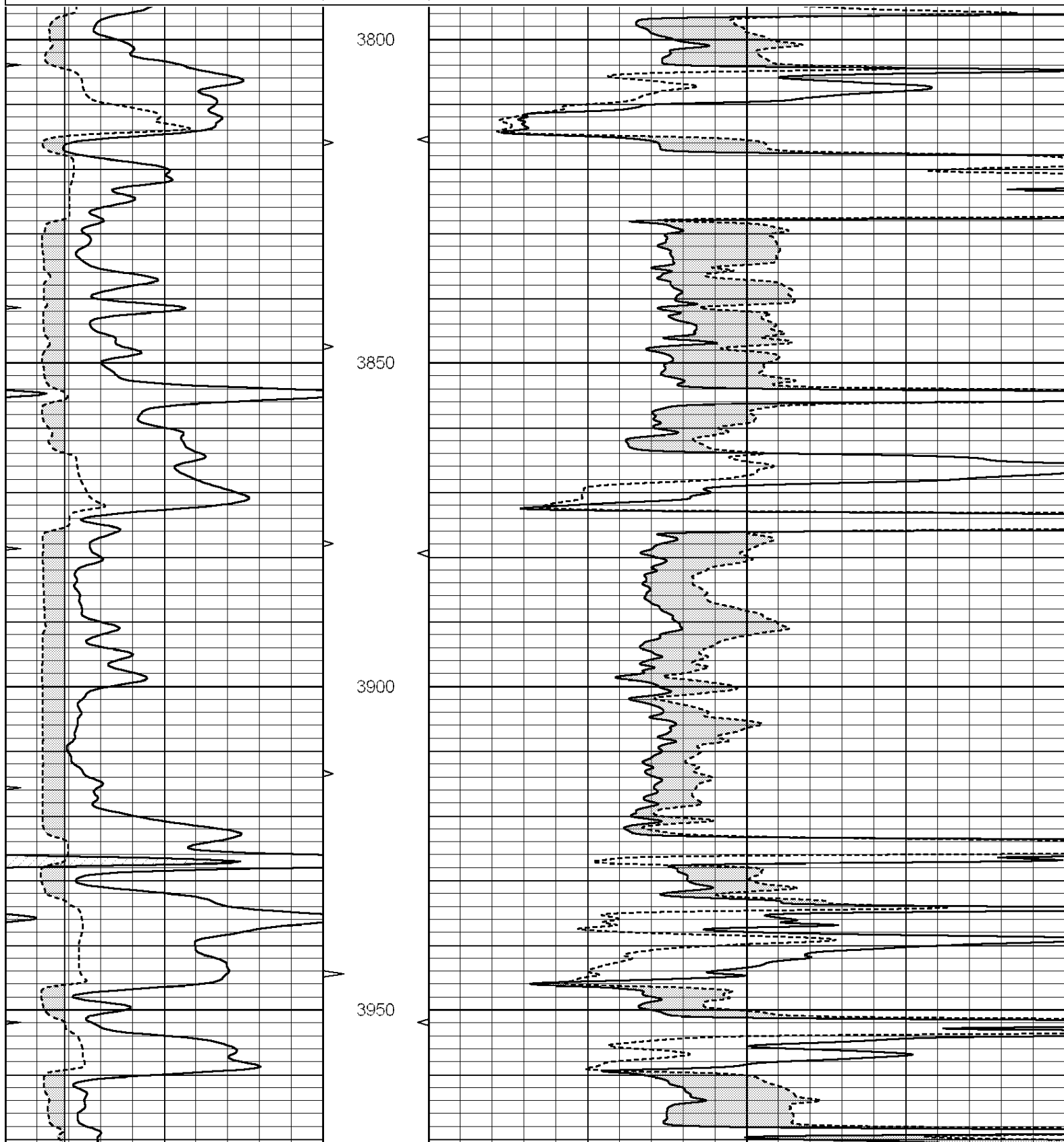
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
INTERSTATE EXIT #70  
5 NORTH TO J ROAD, 2 EAST, NORTHWEST INTO

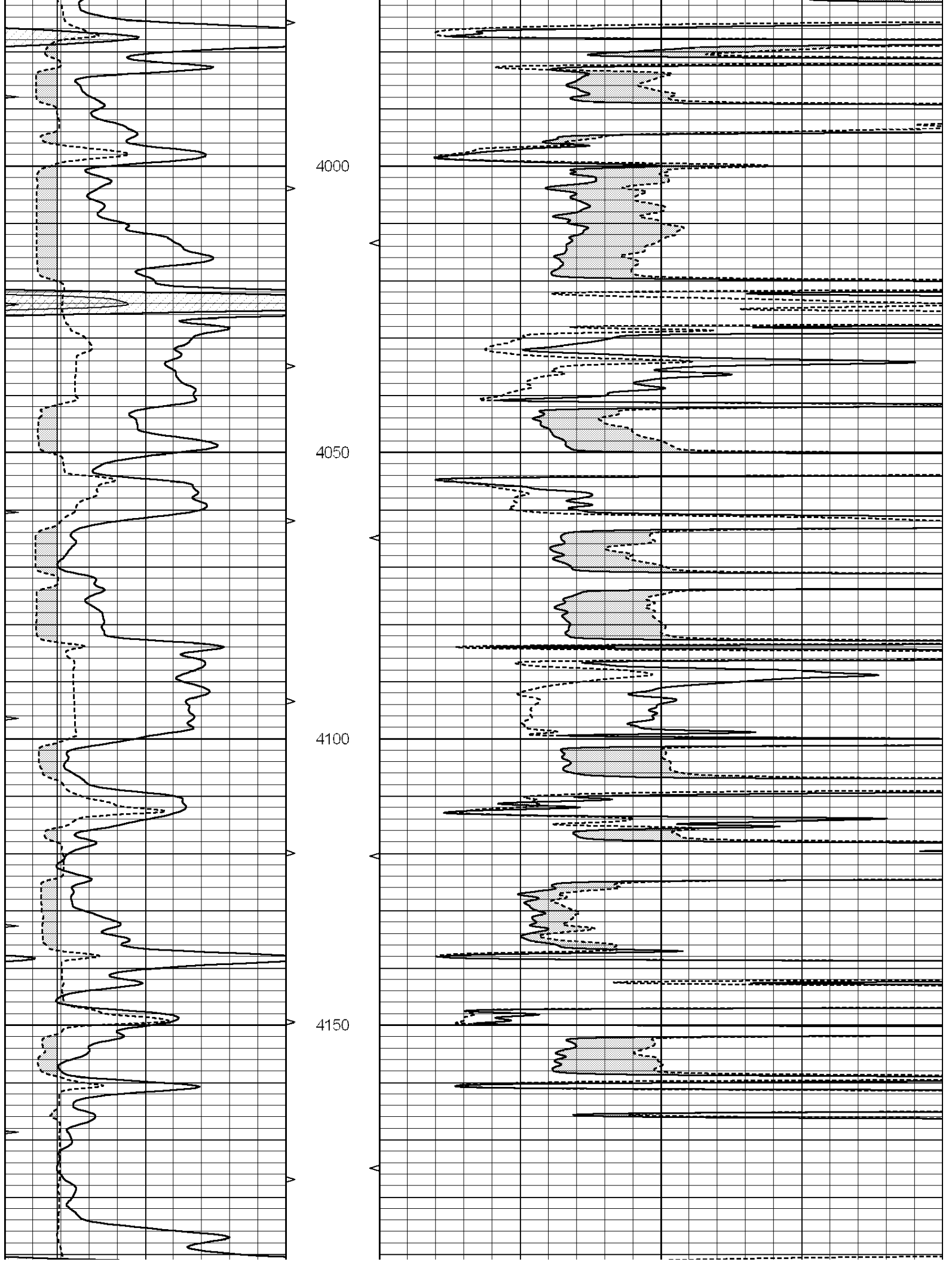


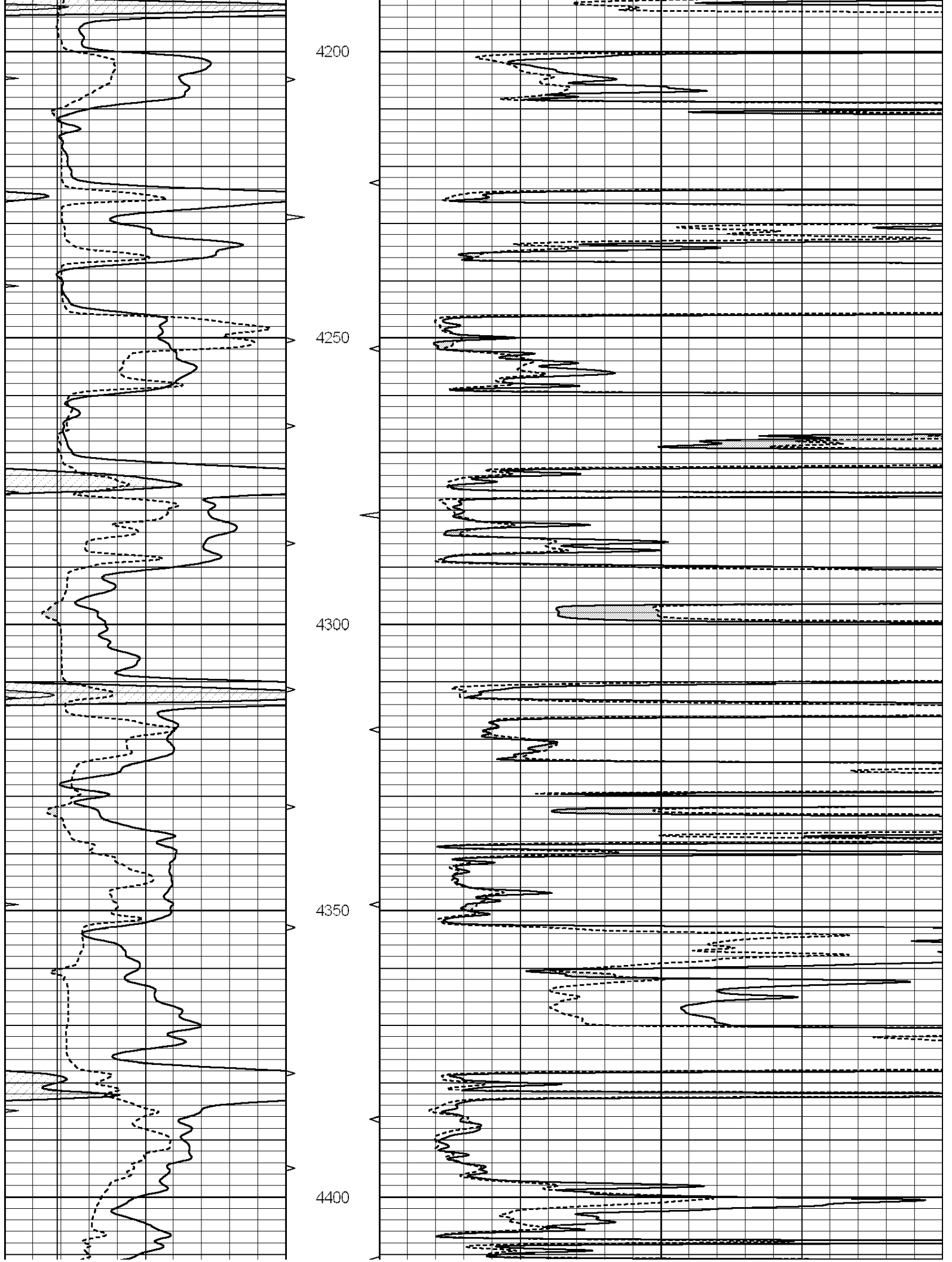
MAIN PASS

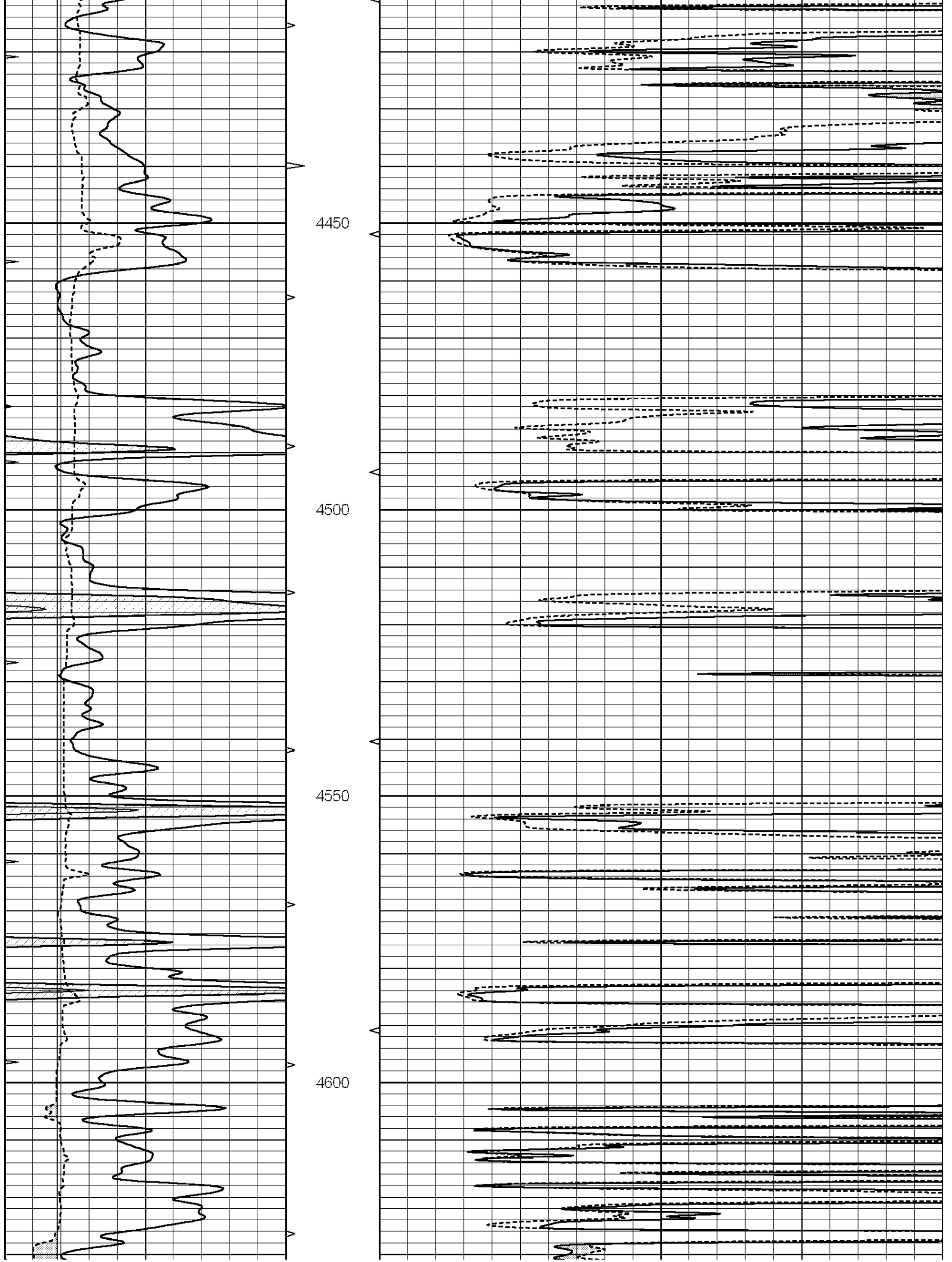
Database File: 1333dildn.db  
 Dataset Pathname: pass6.1  
 Presentation Format: \_micro  
 Dataset Creation: Sat Dec 10 05:57:48 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

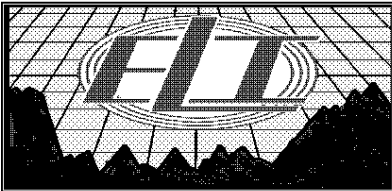
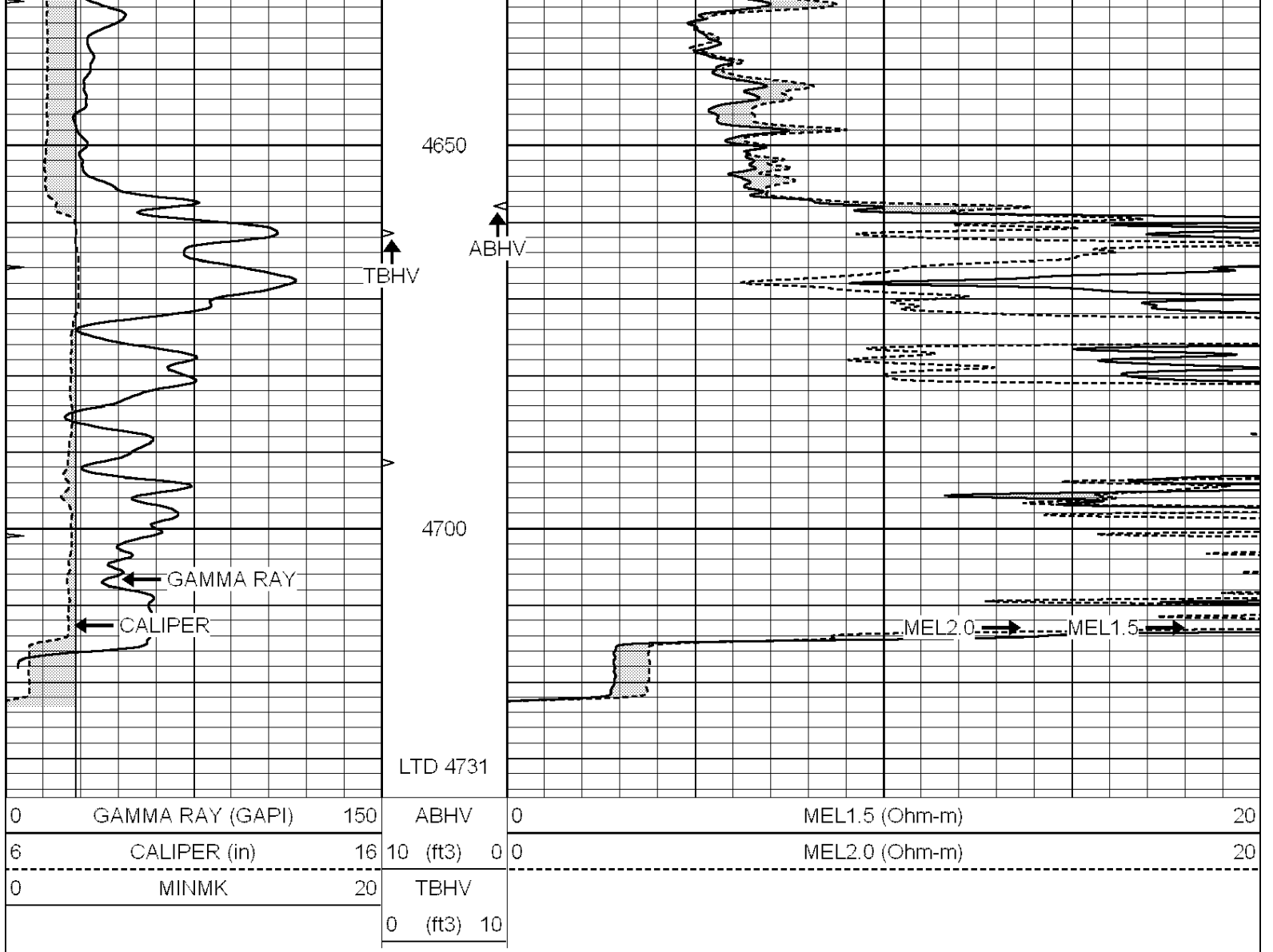
0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	20
6	CALIPER (in)	16	10 (ft3)	0	MEL2.0 (Ohm-m)	20
0	MINMK	20	TBHV			
			0 (ft3)	10		







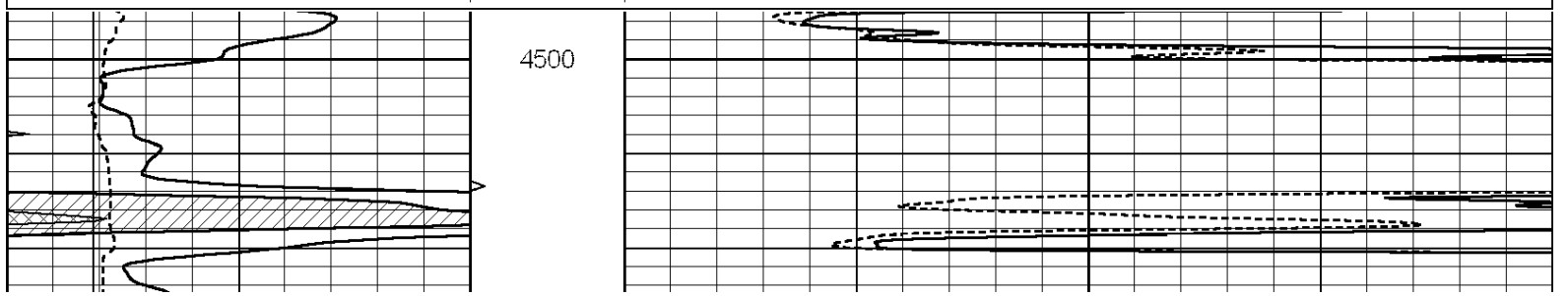


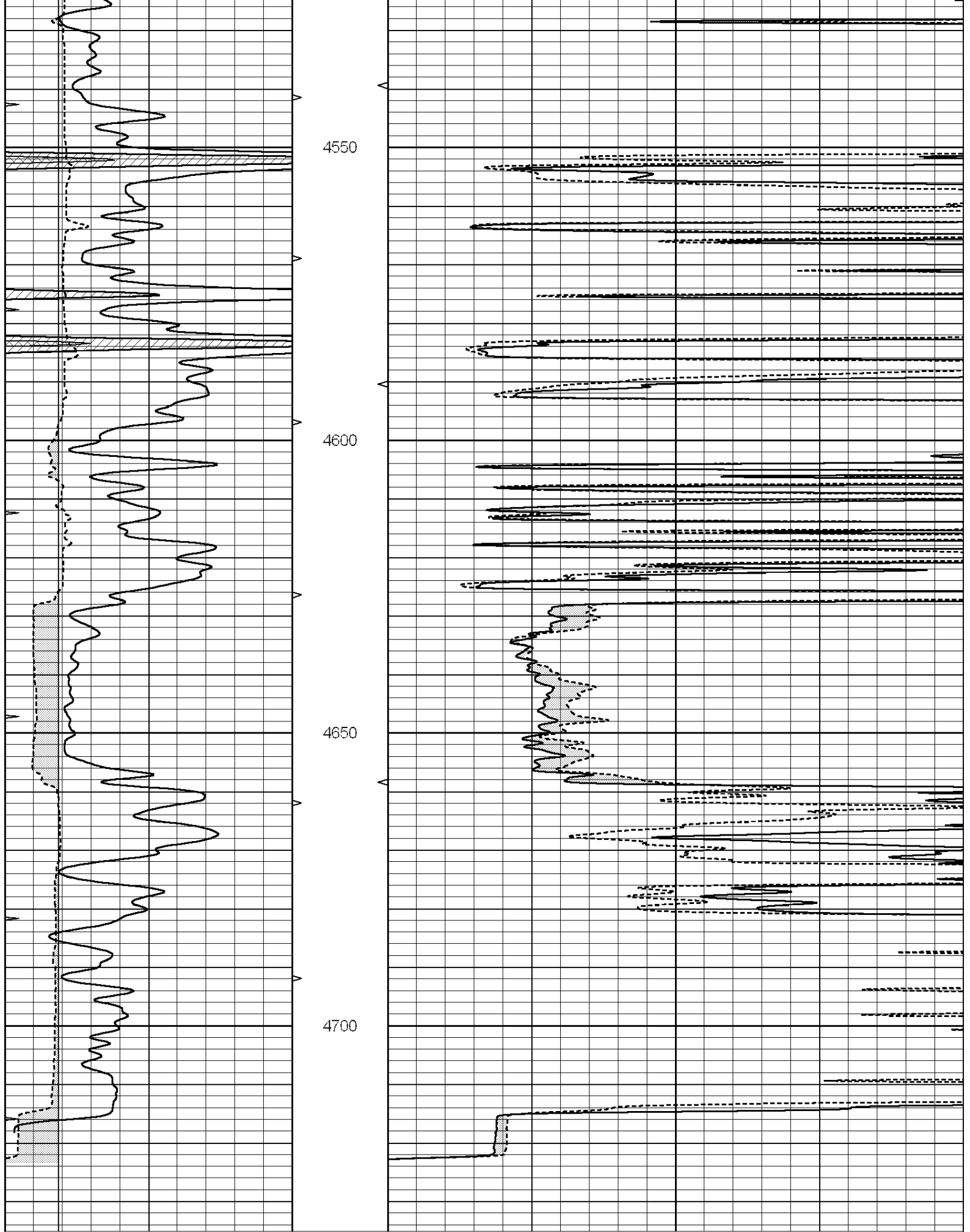


# REPEAT SECTION

Database File: 1333dildn.db  
 Dataset Pathname: pass5.1  
 Presentation Format: \_micro  
 Dataset Creation: Sat Dec 10 05:58:52 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	20
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	20
0	MINMK	20	TBHV			
			0 (ft3)	10		





0	GAMMA RAY (GAPI)	150	ABHV	0	MEL1.5 (Ohm-m)	20
6	CALIPER (in)	16	10 (ft3)	0 0	MEL2.0 (Ohm-m)	20

0	MINMK	20	TBHV
		0	(ft3) 10

Calibration Report

Database File: 1333dildn.db  
Dataset Pathname: pass5  
Dataset Creation: Sat Dec 10 05:17:38 2016 by Log SOC 120430

MICRO Calibration Report

Serial Number: 070912  
Tool Model: ProbeN  
Performed: Wed Nov 23 08:42:36 2016

Caliper Calibration:	Gain=2.790	Offset=5.836
	Low Cal	High Cal
References	7.200	15.000
Readings	0.489	3.285

1.5" Calibration:	Gain=42.000	Offset=-0.600
	Low Cal	High Cal
References	0.000	20.000
Readings	0.002	1.239

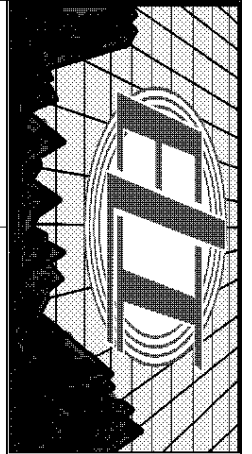
2" Calibration:	Gain=45.000	Offset=-0.600
	Low Cal	High Cal
References	0.000	20.000
Readings	0.003	1.075

Gamma Ray Calibration Report

Serial Number: 110959  
Tool Model: OPEN\_GR  
Performed: Tue Dec 06 03:03:33 2016

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2100	GAPI/cps





**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company ETERNITY EXPLORATION, LLC  
 Well LANDENBURGER NO.1  
 Field WILDCAT  
 County THOMAS  
 State KANSAS

Company ETERNITY EXPLORATION, LLC  
 Well LANDENBURGER NO.1  
 Field WILDCAT  
 County THOMAS State KANSAS

Location: API # : 15-193-20980-00-00  
 330' FSL & 330' FEL  
 SEC 13 TWP 9S RGE 32W  
 Permanent Datum GROUND LEVEL Elevation 3027  
 Log Measured From KELLY BUSHING 5' A.G.L.  
 Drilling Measured From KELLY BUSHING  
 Other Services  
 DIL/MEL  
 SONIIC  
 Elevation  
 K.B. 3032  
 D.F. 3030  
 G.L. 3027

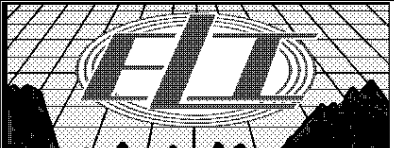
Date	12/10/16
Run Number	ONE
Depth Driller	4730
Depth Logger	4731
Bottom Logged Interval	4706
Top Log Interval	3500
Casing Driller	8 5/8" @ 24'
Casing Logger	246'
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/80
pH / Fluid Loss	9.4/8.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.0 @ 80
Rmf @ Meas. Temp	.75 @ 80
Rmc @ Meas. Temp	1.2 @ 80
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.65 @ 123
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	123 DEG/F
Equipment Number	922339
Location	HAYS, KANSAS
Recorded By	JUSTIN HENRICKSON
Witnessed By	KIM SHOEMAKER
	CARLO UGOLINI

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

**Comments**

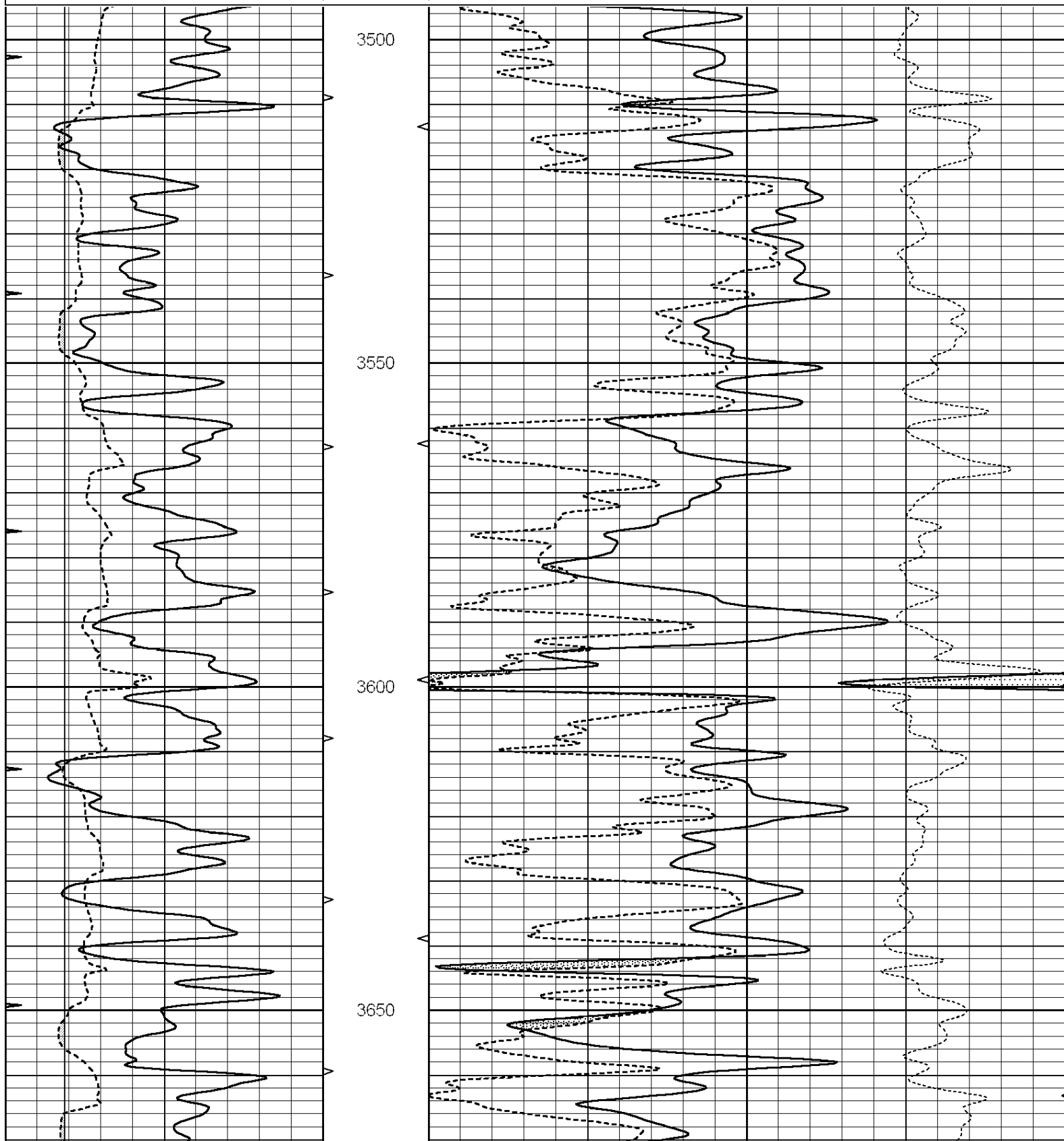
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395  
 DIRECTIONS  
 INTERSTATE EXIT #70  
 5 NORTH TO J ROAD, 2 EAST, NORTHWEST INTO

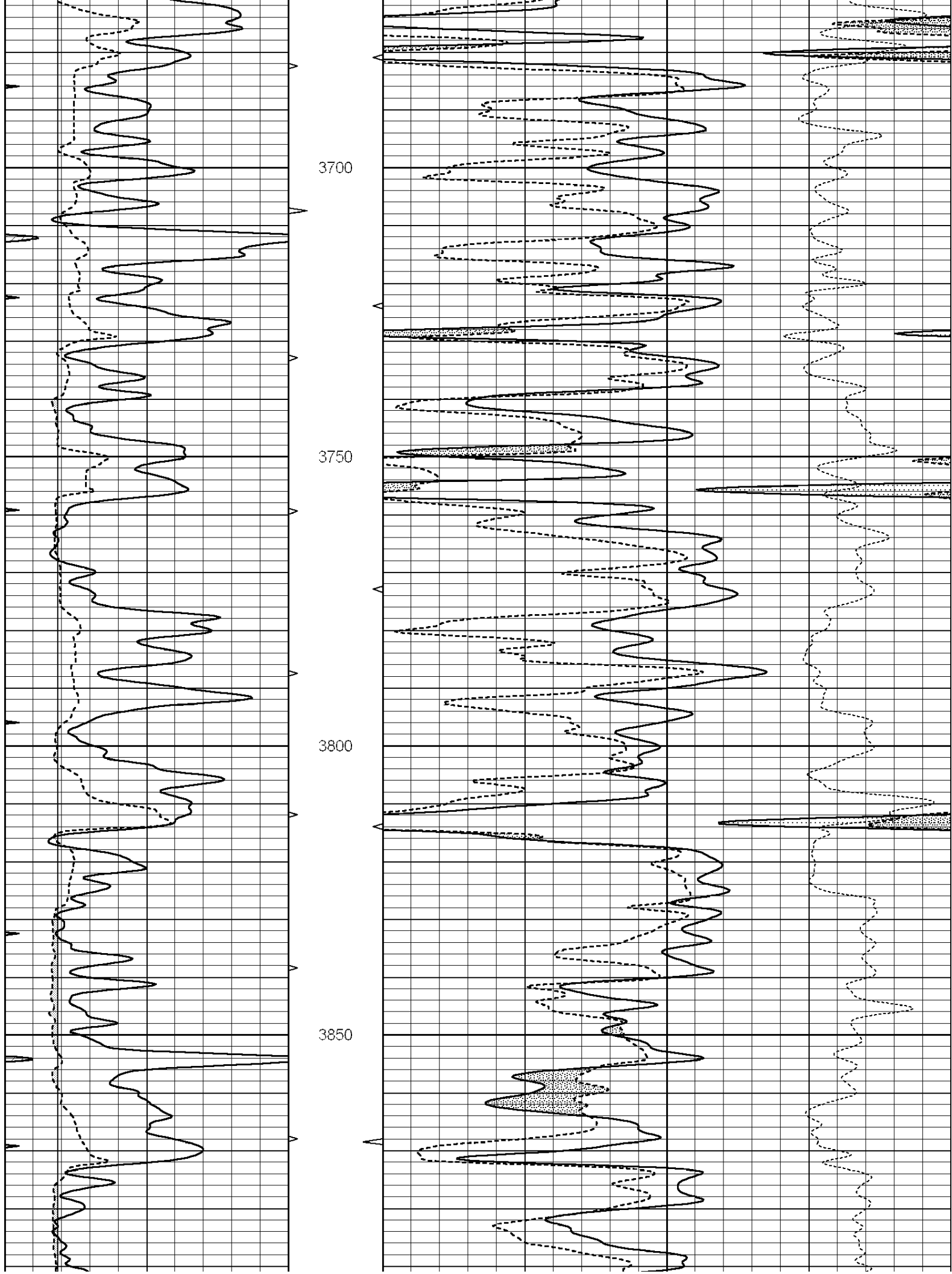


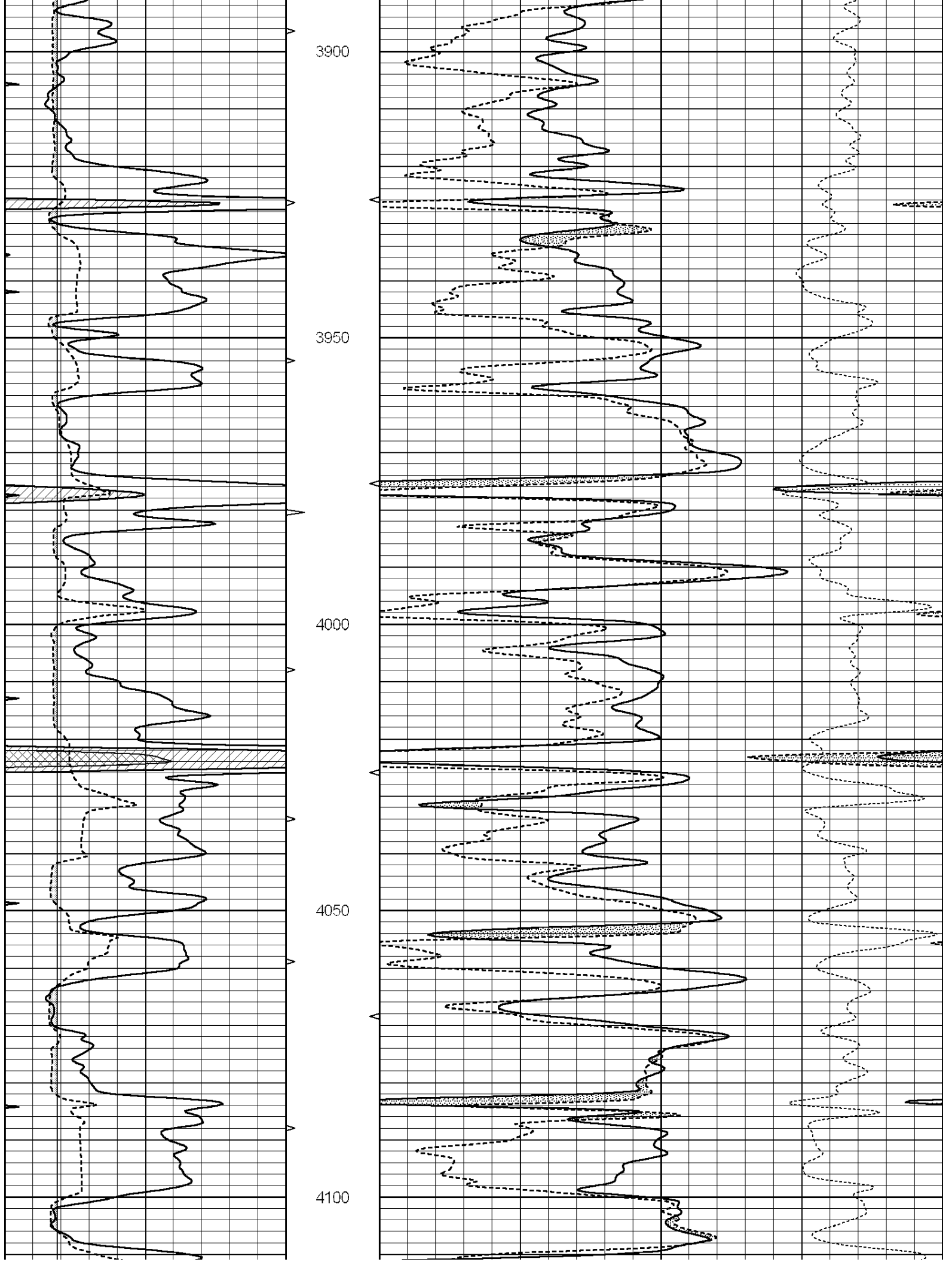
**MAIN PASS**

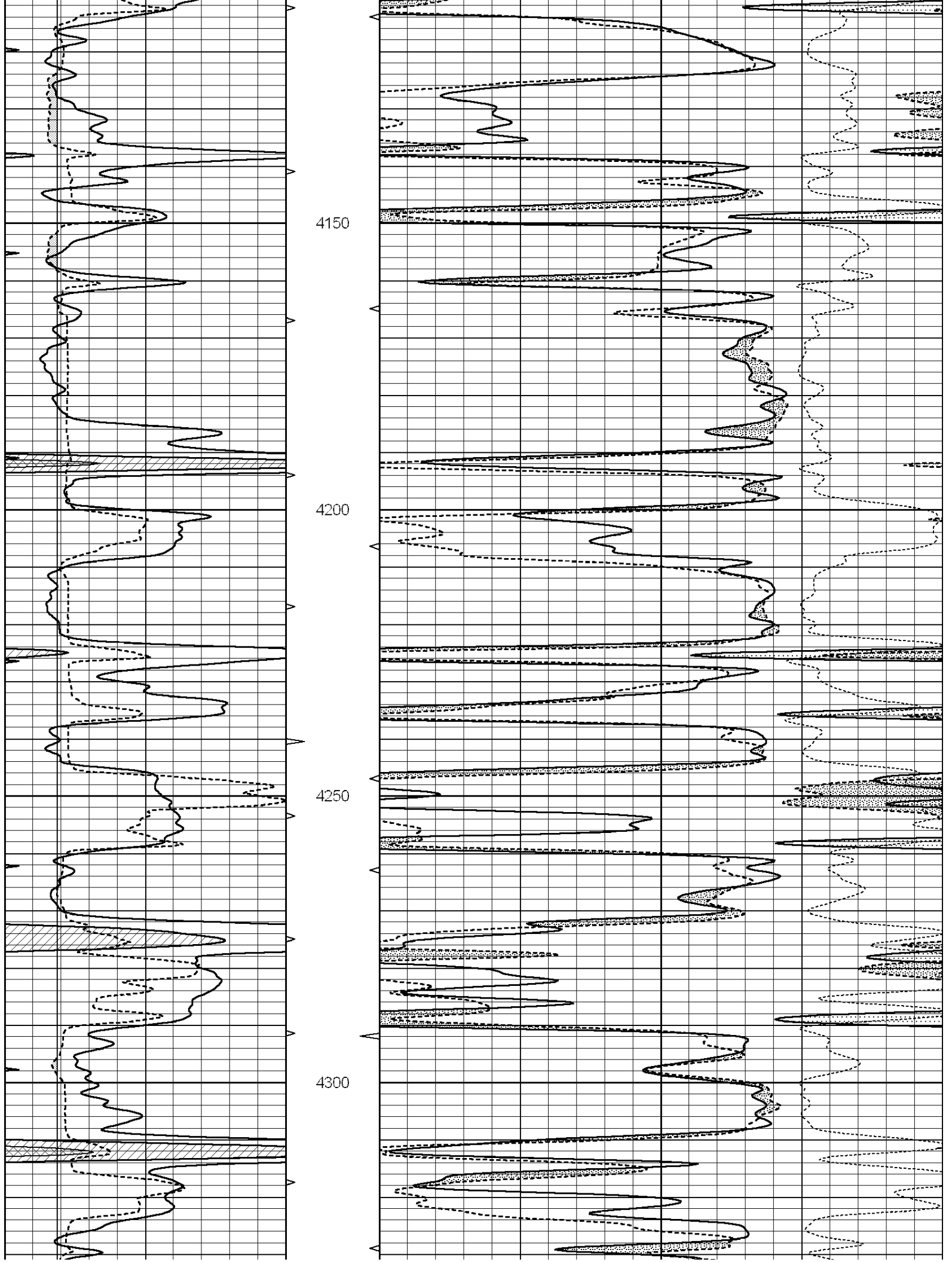
Database File: 1333dildn.db  
 Dataset Pathname: pass3.1  
 Presentation Format: den\_neu  
 Dataset Creation: Sat Dec 10 03:26:59 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

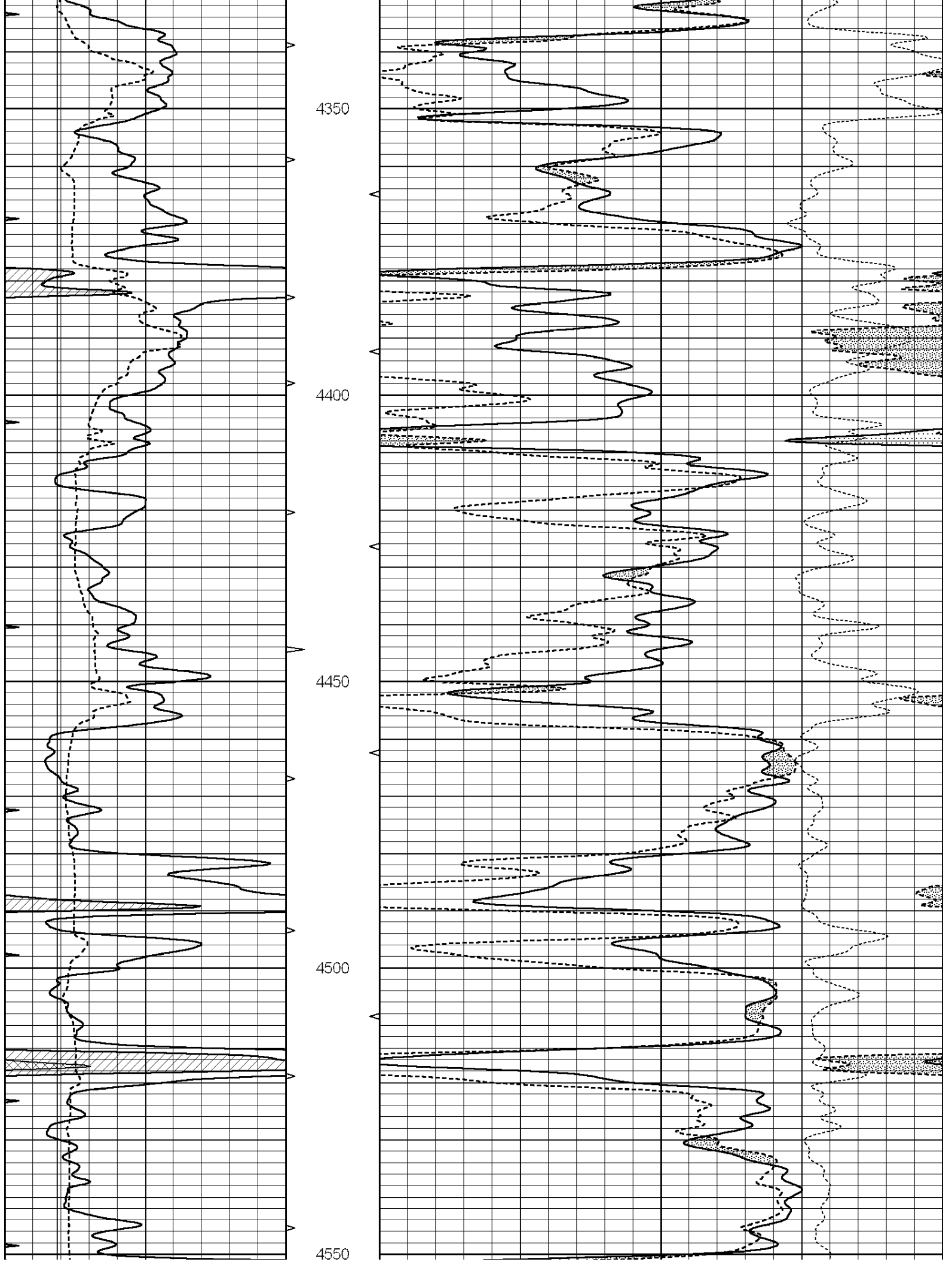
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

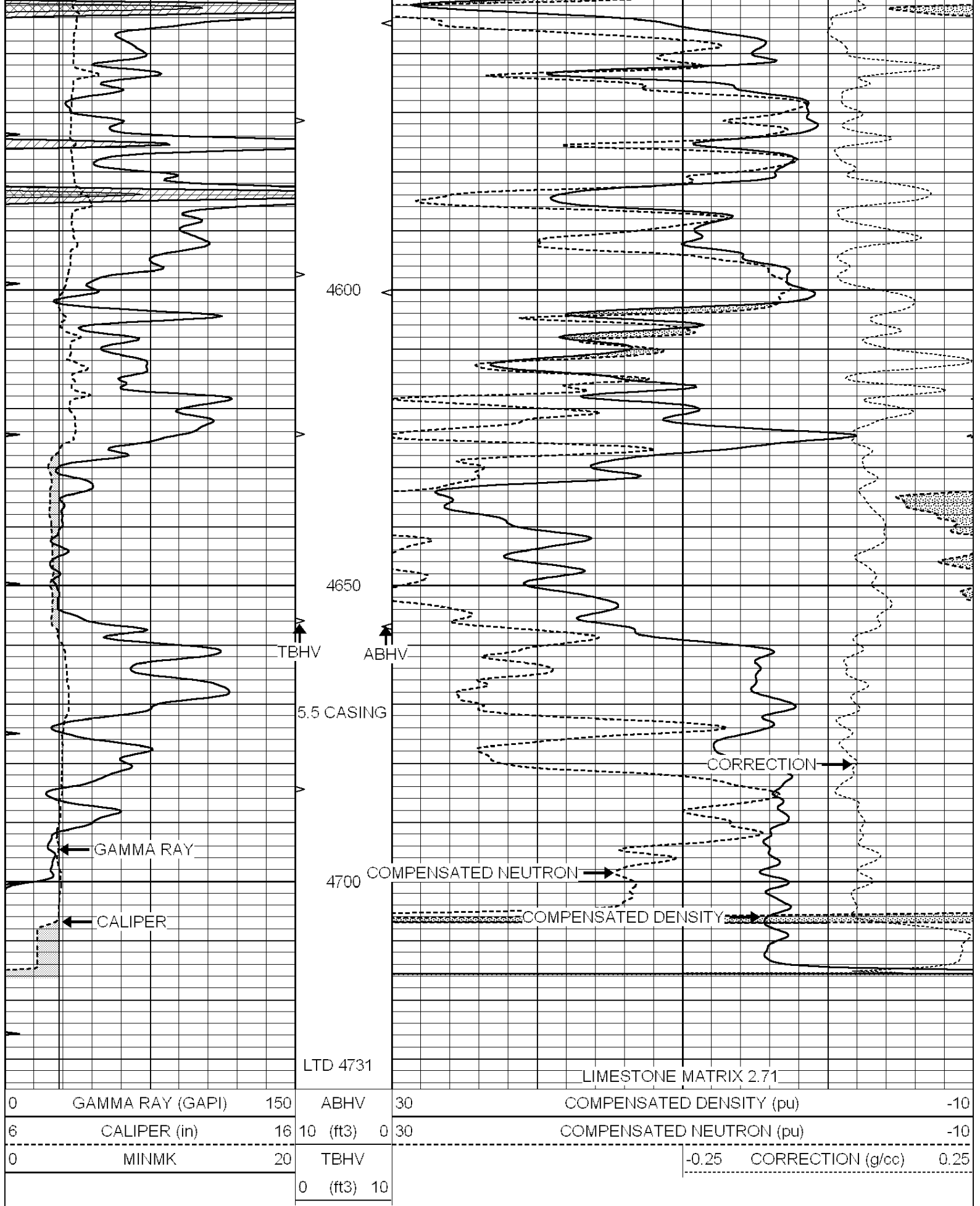




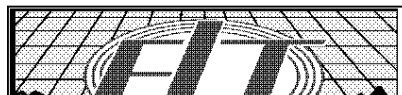








0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10	
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10			

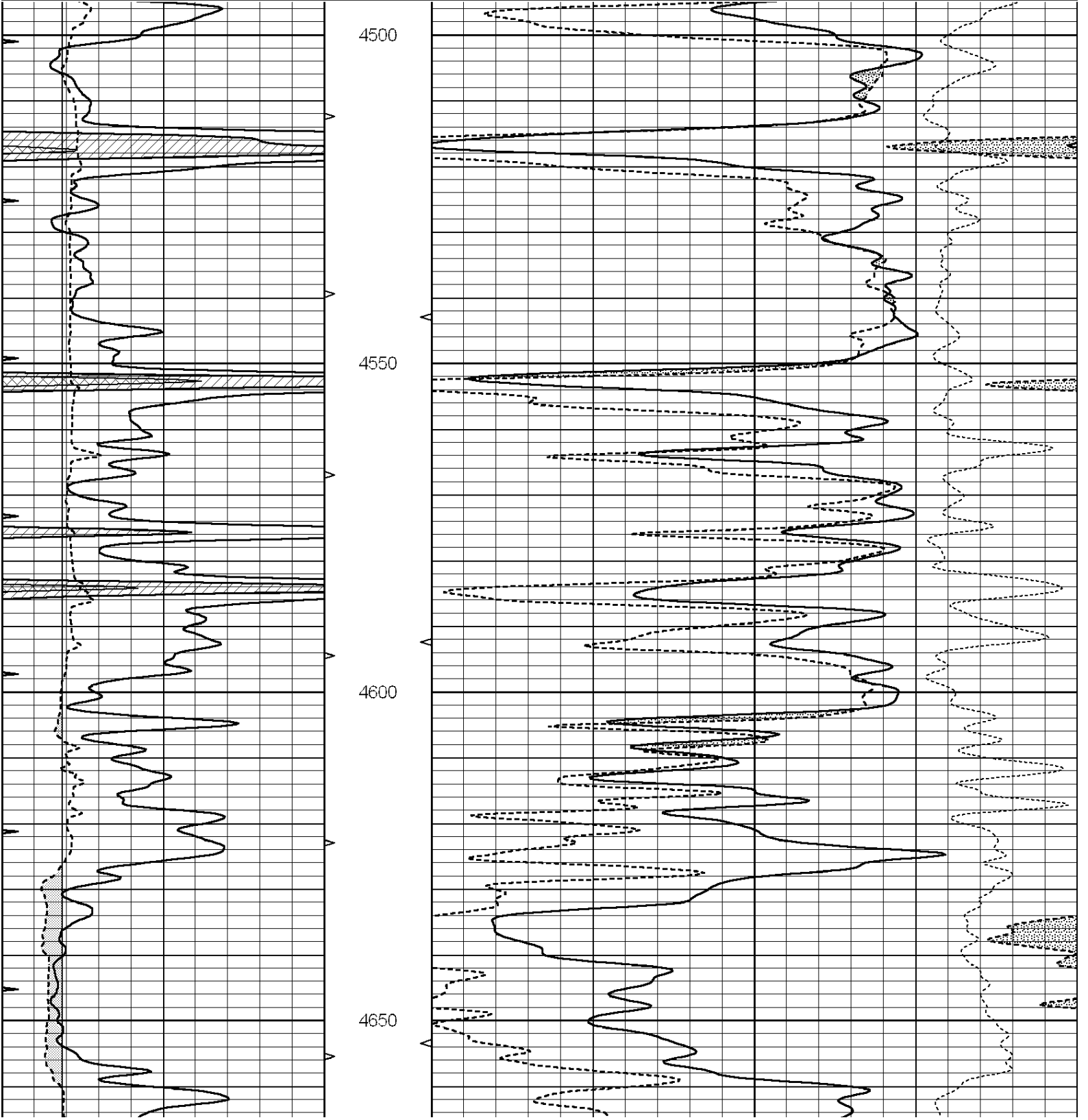


# DEDE AT SECTION

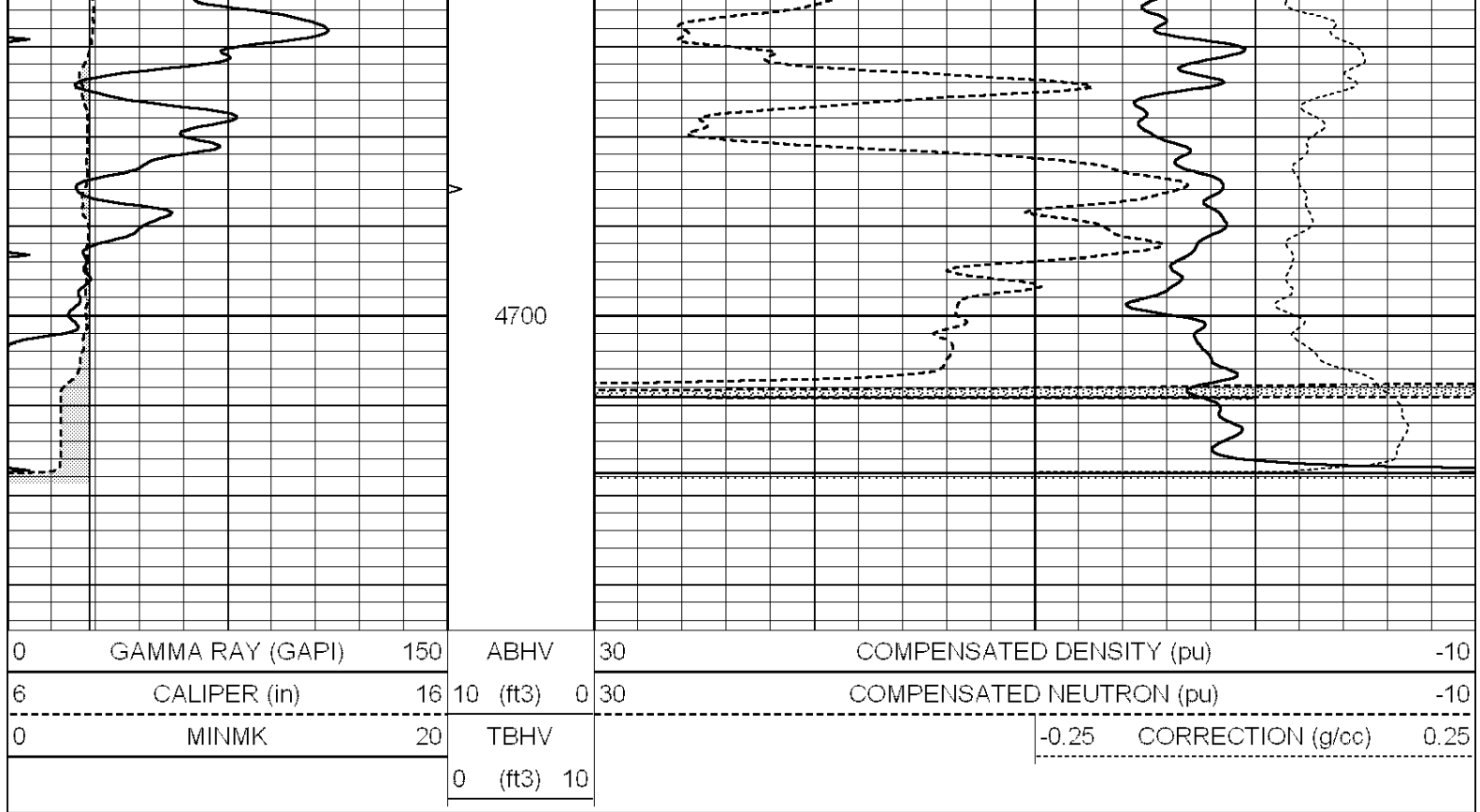
# REPEAT SECTION

Database File: 1333dildn.db  
 Dataset Pathname: pass2.1  
 Presentation Format: den\_neu  
 Dataset Creation: Sat Dec 10 03:40:09 2016 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		







### Calibration Report

Database File: 1333dildn.db  
 Dataset Pathname: pass3.1  
 Dataset Creation: Sat Dec 10 03:26:59 2016 by Calc SOC 120430

### Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Thu Nov 03 11:12:55 2016  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

#### Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	625.000	0.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-45.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

#### Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

#### After Survey Verification

	Readings	Targets	Results
--	----------	---------	---------

	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report  
Serial: 004N Model: PRB

Master Calibration

Performed Fri May 30 11:01:00 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1378.8	10804.6	3492.0	12453.4	cps
Window 2	1262.4	9313.5	3076.7	10594.7	cps
Window 3	1077.6	5668.7	2076.0	6314.8	cps
Window 4	306.4	313.0	306.4	315.6	cps
Long Space	0.0	8051.0	1814.3	9332.3	cps
Short Space	1.9	1706.1	1146.0	1707.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 45.0	Rib Slope	: 1.002	Density/Spine Ratio	: 0.571
Spine Angle	: 75.0	Spine Slope	: 3.745	Spine Intercept	: -18.9

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808  
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		

Long Space

cps

pu

pu

POST-SURVEY VERIFICATION

Detector

Readings

Measured

Target

Short Space

cps

Long Space

cps

pu

pu

Gamma Ray Calibration Report

Serial Number:

070558

Tool Model:

OPEN\_GR

Performed:

Mon Aug 22 01:00:15 2016

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.2800

GAPI/cps



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

ATTN: Kim Shoemaker

Job Ticket: 65644

**DST#: 1**

Test Start: 2016.12.07 @ 03:06:40

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:06:40

Time Test Ended: 10:42:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

**Interval: 4185.00 ft (KB) To 4269.00 ft (KB) (TVD)**

Reference Elevations: 3032.00 ft (KB)

Total Depth: 4269.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 81.56 psig @ 4186.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.07 End Date: 2016.12.07

Last Calib.: 2016.12.07

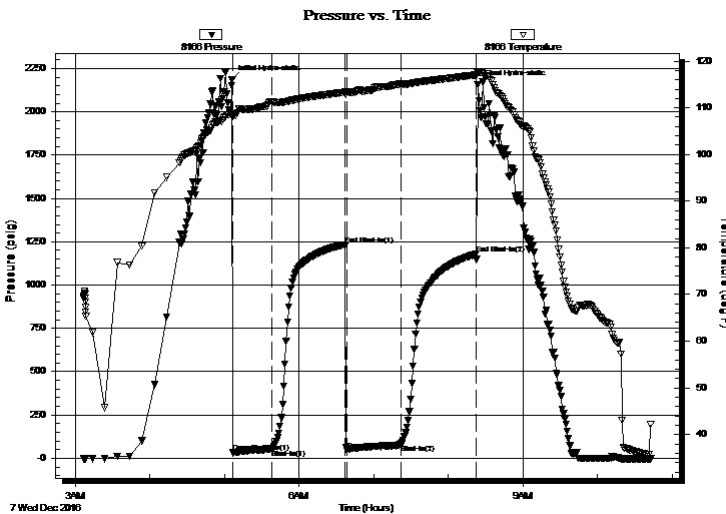
Start Time: 03:06:45 End Time: 10:42:39

Time On Btm: 2016.12.07 @ 05:06:10

Time Off Btm: 2016.12.07 @ 08:23:40

**TEST COMMENT:** IF: 1/4 blow built to 4 1/2 in 30 min.  
IS: No return.  
FF: Surface blow built to 4 in 45 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.71	108.57	Initial Hydro-static
1	31.61	108.22	Open To Flow (1)
32	53.55	111.25	Shut-In(1)
91	1233.65	113.35	End Shut-In(1)
92	47.00	113.27	Open To Flow (2)
136	81.56	115.10	Shut-In(2)
196	1177.86	117.04	End Shut-In(2)
198	2156.08	117.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.87
62.00	ocm 5%o 95%m	0.87

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

Job Ticket: 65644

**DST#: 1**

ATTN: Kim Shoemaker

Test Start: 2016.12.07 @ 03:06:40

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	ocm 10%o 90%m	0.870
62.00	ocm 5%o 95%m	0.870

Total Length: 124.00 ft

Total Volume: 1.740 bbl

Num Fluid Samples: 0

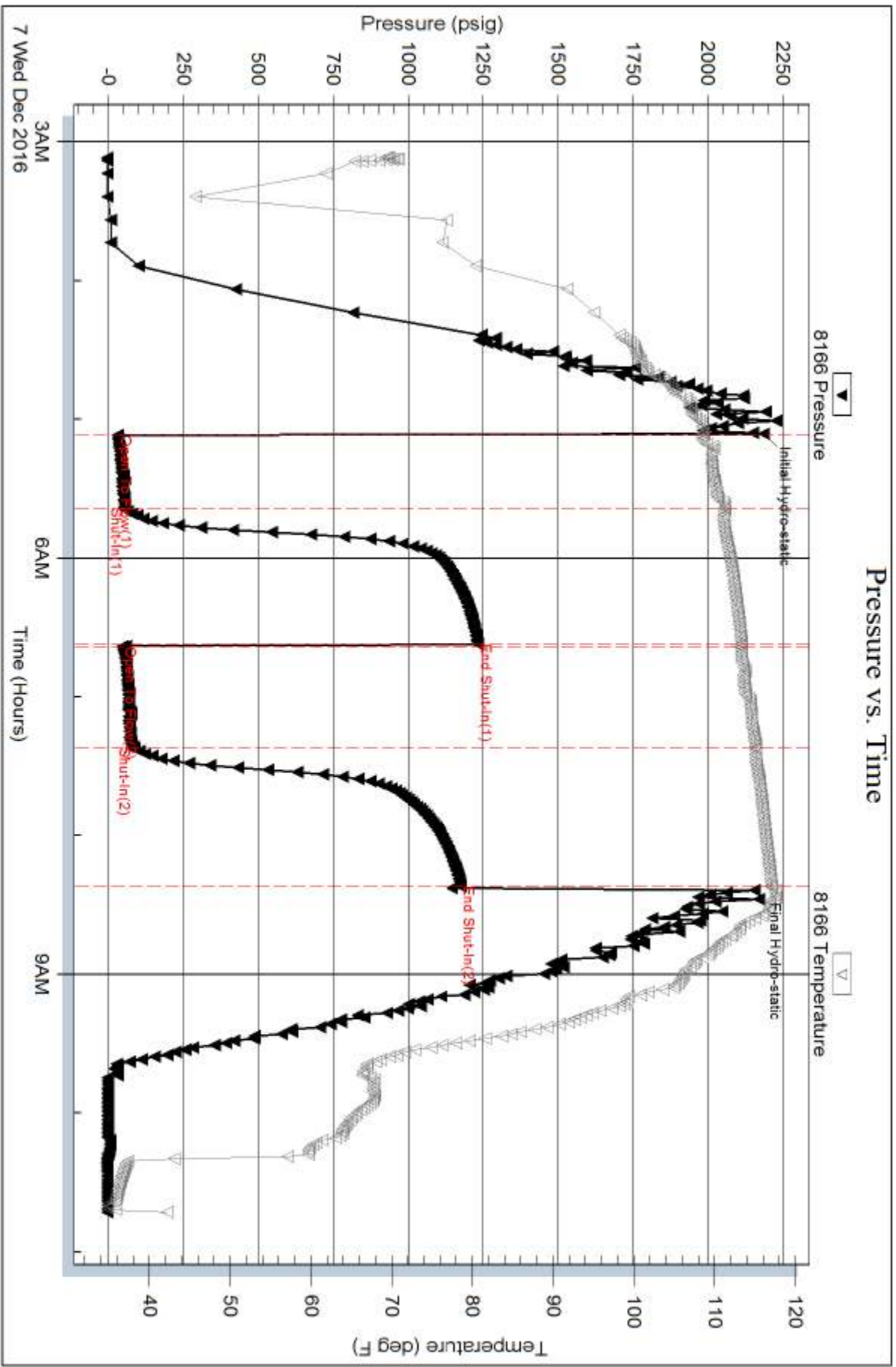
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



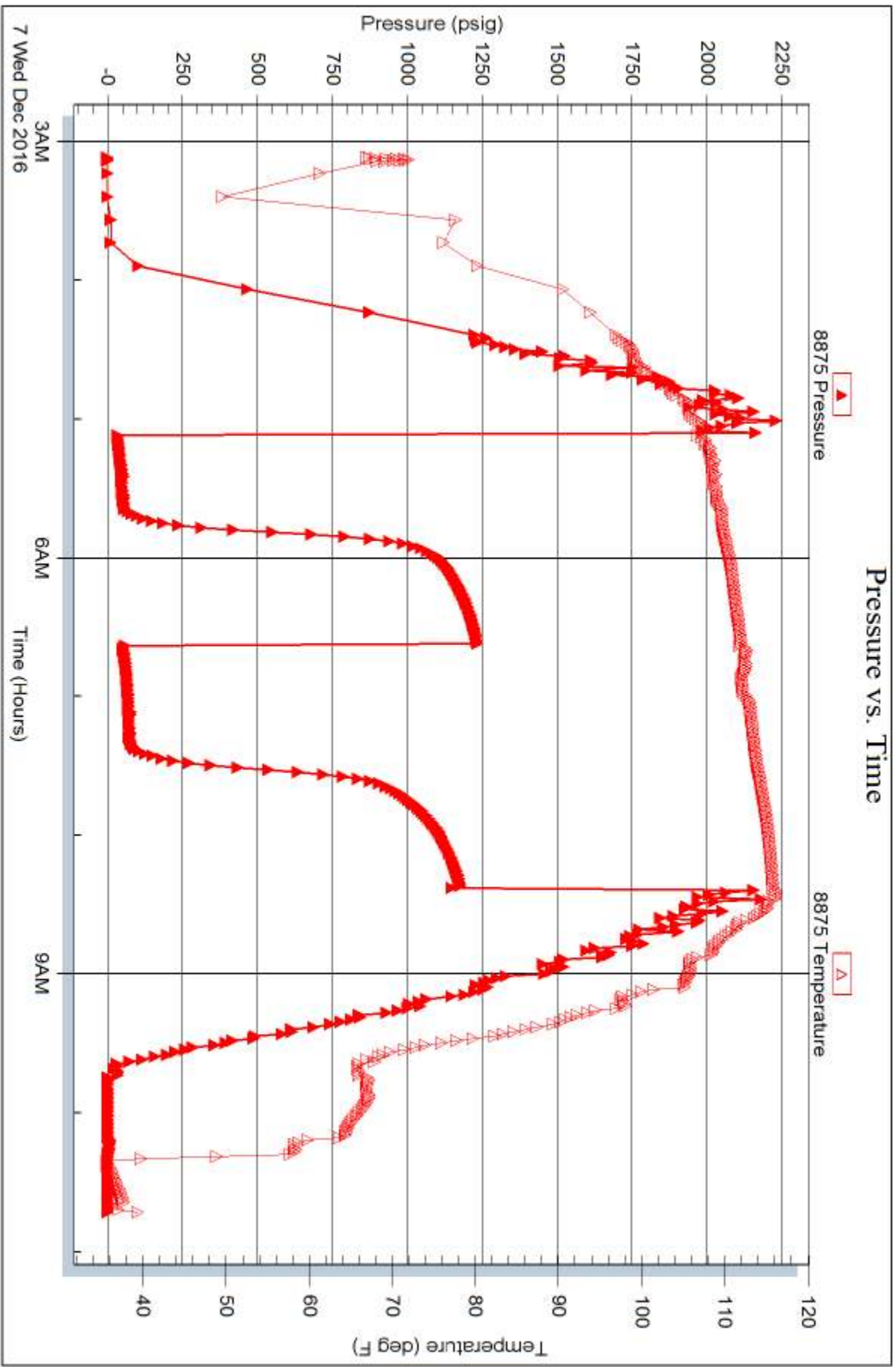
Serial #: 8875

Inside

Eernity Exploration LLC

#1 Landenburger

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65644

Printed: 2016.12.07 @ 10:55:13





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

ATTN: Kim Shoemaker

Job Ticket: 65645

**DST#: 2**

Test Start: 2016.12.07 @ 21:34:17

## GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:23:17

Time Test Ended: 07:29:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4273.00 ft (KB) To 4333.00 ft (KB) (TVD)**

Reference Elevations: 3032.00 ft (KB)

Total Depth: 4333.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 715.88 psig @ 4274.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.07

End Date:

2016.12.08

Last Calib.:

2016.12.08

Start Time: 21:34:22

End Time:

07:29:17

Time On Btm:

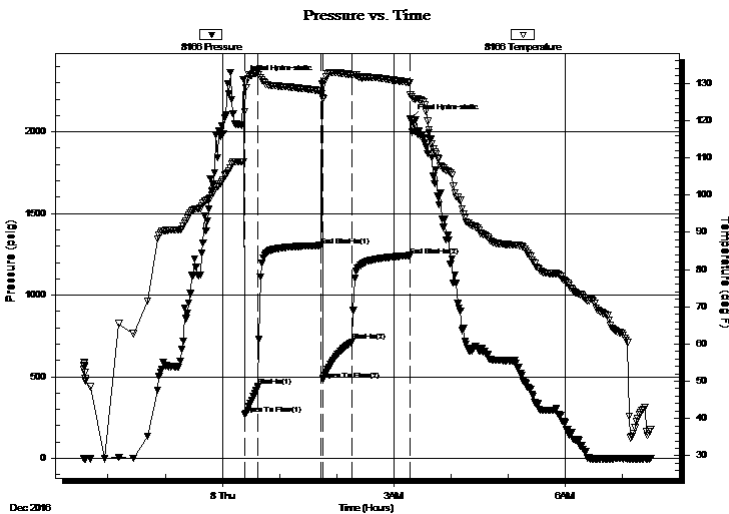
2016.12.08 @ 00:21:47

Time Off Btm:

2016.12.08 @ 03:17:17

**TEST COMMENT:** IF: BOB in 1 min.  
IS: Surface blow died in 5 min.  
FF: BOB in 2 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2321.64	108.95	Initial Hydro-static
2	272.06	122.40	Open To Flow (1)
16	442.93	132.88	Shut-In(1)
81	1304.02	128.02	End Shut-In(1)
84	481.36	126.07	Open To Flow (2)
115	715.88	132.34	Shut-In(2)
175	1242.20	130.24	End Shut-In(2)
176	2079.29	127.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
189.00	mcw 95%w 5%m	2.65
756.00	ocmw 10%o 80%w 10%m	10.60
315.00	ocmw 5%o 65%w 30%m	4.42
267.00	ocmw 5%o 55%w 40%m	3.75
0.00	108 GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

Job Ticket: 65645

**DST#: 2**

ATTN: Kim Shoemaker

Test Start: 2016.12.07 @ 21:34:17

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

34000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
189.00	mcw 95%w 5%m	2.651
756.00	ocmw 10%o 80%w 10%m	10.605
315.00	ocmw 5%o 65%w 30%m	4.419
267.00	ocmw 5%o 55%w 40%m	3.745
0.00	108 GIP	0.000

Total Length: 1527.00 ft      Total Volume: 21.420 bbl

Num Fluid Samples: 0

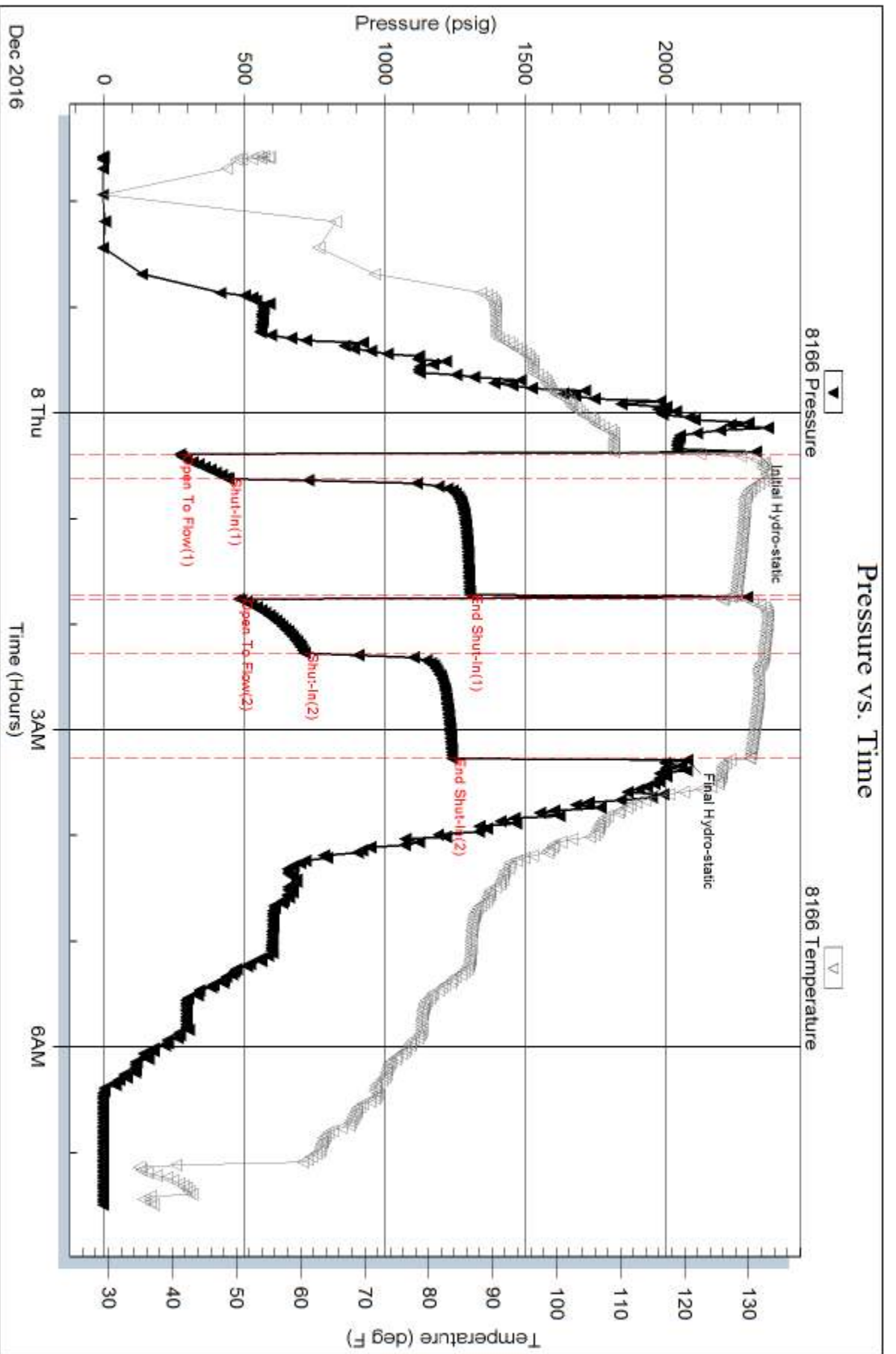
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .50@28=34000



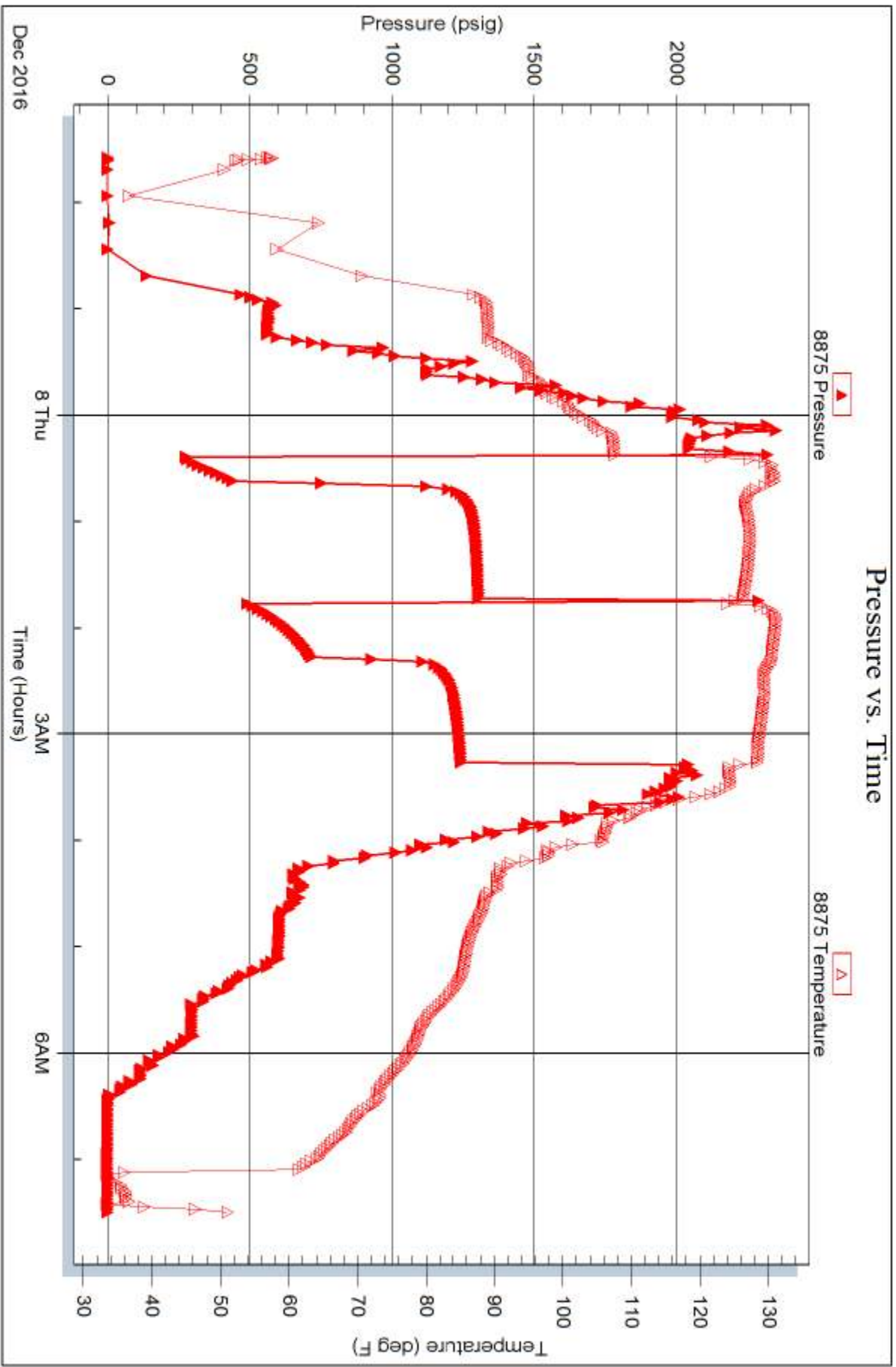
Serial #: 8875

Inside

Eernity Exploration LLC

#1 Landenburger

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65645

Printed: 2016.12.08 @ 10:55:51



## DRILL STEM TEST REPORT

Prepared For: **Eternity Exploration LLC**

338 Spyglass Dr.  
Coppell, Tx 75019

ATTN: Kim Shoemaker

### **#1 Landenburger**

#### **13-9s-32w Thomas, Ks**

Start Date: 2016.12.08 @ 07:52:21

End Date: 2016.12.08 @ 16:01:21

Job Ticket #: 65646                      DST #: 3

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

Printed: 2016.12.08 @ 16:51:28



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

ATTN: Kim Shoemaker

Job Ticket: 65646

**DST#: 3**

Test Start: 2016.12.08 @ 07:52:21

## GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:30:21

Time Test Ended: 16:01:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

**Interval: 4307.00 ft (KB) To 4333.00 ft (KB) (TVD)**

Reference Elevations: 3032.00 ft (KB)

Total Depth: 4333.00 ft (KB) (TVD)

3027.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8166 Outside**

Press@RunDepth: 140.96 psig @ 4308.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.08 End Date: 2016.12.08

Last Calib.: 2016.12.08

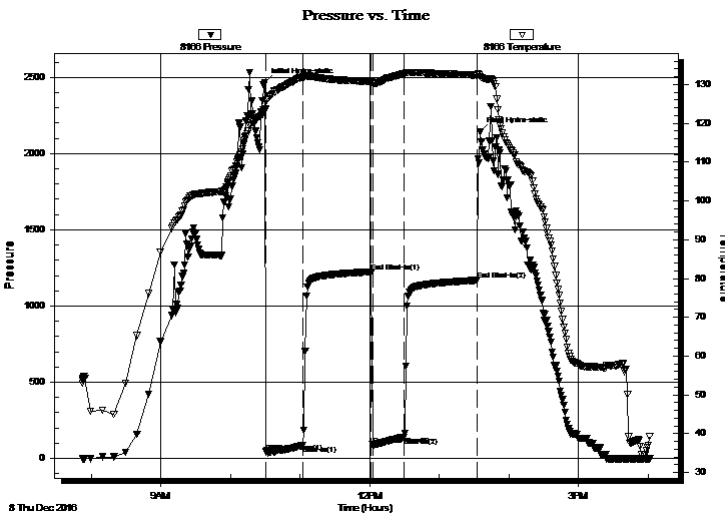
Start Time: 07:52:26 End Time: 16:01:20

Time On Btm: 2016.12.08 @ 10:29:21

Time Off Btm: 2016.12.08 @ 13:35:21

**TEST COMMENT:** IF: BOB in 3 min.  
IS: Surface blow built to 3 died in 47 min.  
FF: BOB in 6 min.  
FS: BOB in 11 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2466.63	123.63	Initial Hydro-static
1	42.47	123.62	Open To Flow (1)
33	85.98	131.92	Shut-In(1)
92	1223.61	130.80	End Shut-In(1)
93	88.71	130.27	Open To Flow (2)
121	140.96	132.83	Shut-In(2)
183	1169.16	132.43	End Shut-In(2)
186	2141.49	132.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
126.00	gocw m 20%g 5%o 5%w 70%m	1.77
234.00	go 20%g 80%o	3.28
0.00	2223 GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

Job Ticket: 65646

**DST#: 3**

ATTN: Kim Shoemaker

Test Start: 2016.12.08 @ 07:52:21

## Tool Information

Drill Pipe:	Length: 4283.00 ft	Diameter: 3.80 inches	Volume: 60.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 60.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4307.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 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
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Stubb	1.00			4281.00	
Shut In Tool	5.00			4286.00	
Hydraulic tool	5.00			4291.00	
Jars	5.00			4296.00	
Safety Joint	2.00			4298.00	
Packer	5.00			4303.00	27.00 Bottom Of Top Packer
Packer	4.00			4307.00	
Stubb	1.00			4308.00	
Recorder	0.00	8875	Inside	4308.00	
Recorder	0.00	8166	Outside	4308.00	
Perforations	20.00			4328.00	
Bullnose	5.00			4333.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Eternity Exploration LLC

**13-9s-32w Thomas, Ks**

338 Spyglass Dr.  
Coppell, Tx 75019

**#1 Landenburger**

Job Ticket: 65646

**DST#: 3**

ATTN: Kim Shoemaker

Test Start: 2016.12.08 @ 07:52:21

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

41 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
126.00	gocw m 20%g 5%o 5%w 70%m	1.767
234.00	go 20%g 80%o	3.282
0.00	2223 GIP	0.000

Total Length: 360.00 ft

Total Volume: 5.049 bbl

Num Fluid Samples: 0

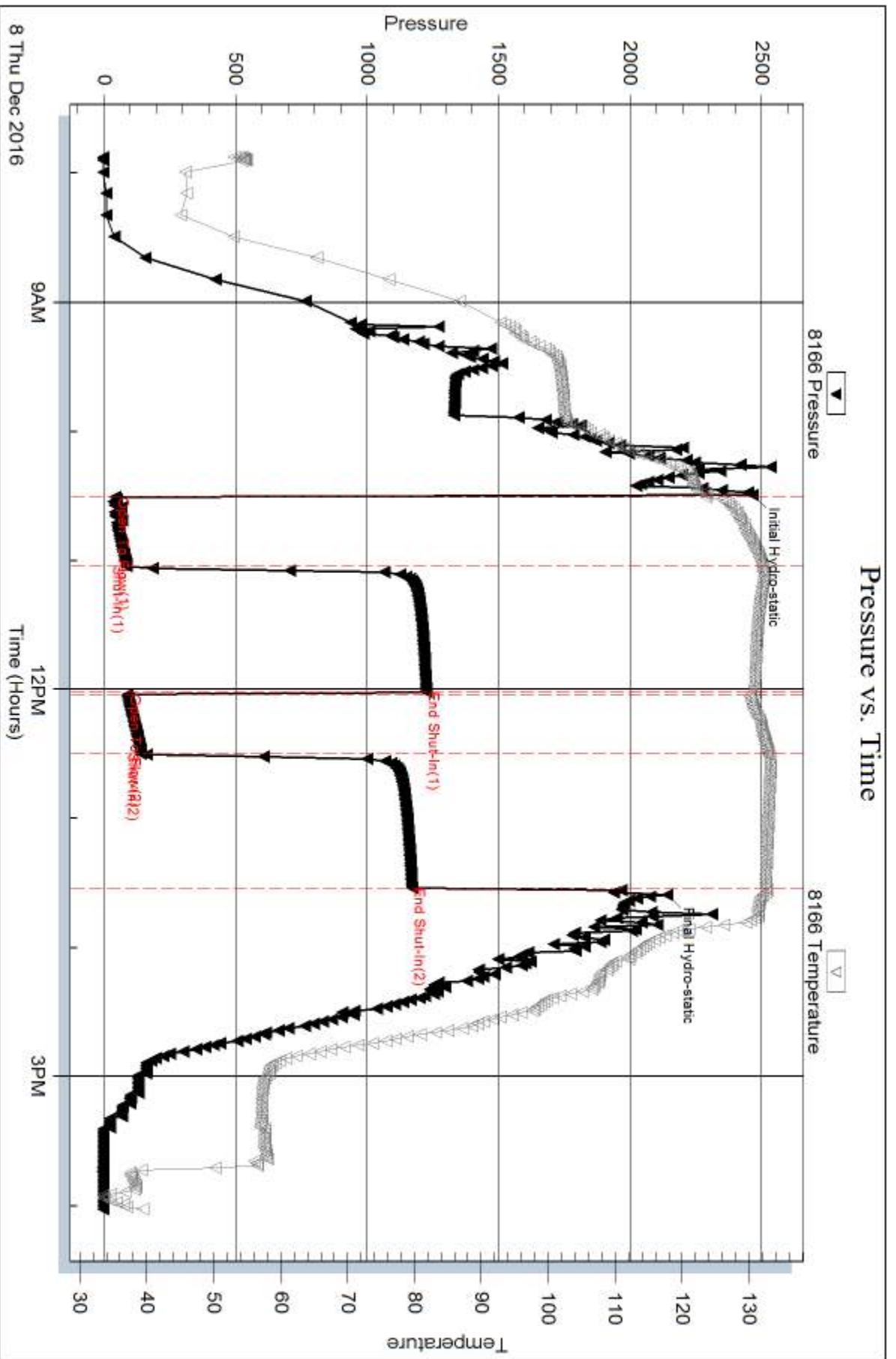
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 38@30=41



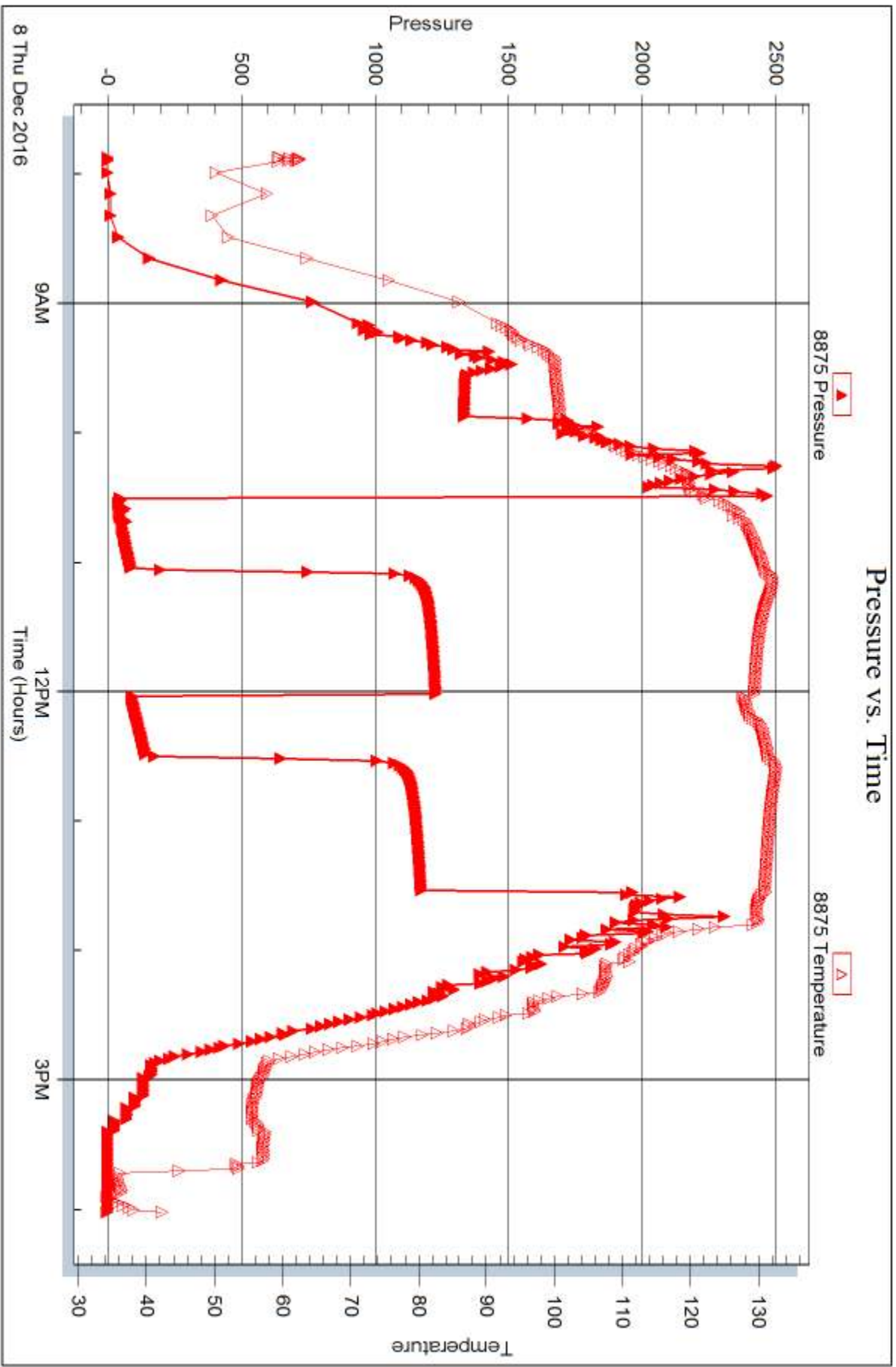
Serial #: 8875

Inside

Eternity Exploration LLC

#1 Landenburger

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65646

Printed: 2016.12.08 @ 16:51:32

# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY ETERNITY EXPLORATION, LLC

LEASE Ø 1 LADENBURGER

FIELD WILDCAT

LOCATION SE SE SE, 330' FSL ÷ 330' FEL

SEC 13 TWP 9s RGE 32w

COUNTY THOMAS STATE KANSAS

CONTRACTOR WHITE KNIGHT DRILLING, LLC

SPUD 12-1-16 COMP 12-10-16

RTD 4730 LTD 4731

MUD UP 3352 TYPE MUD CHEMICAL

### ELEVATIONS

KB 3032

DF \_\_\_\_\_

GI 3027

Measurements Are All  
From 3032 KB

### CASING

SURFACE 8 5/8" @ 247'

PRODUCTION 5 1/2" @

### ELECTRICAL SURVEYS

DUAL IND., N-DENS, MICRO,  
SONIC

SAMPLES SAVED FROM 3800 TO 4730

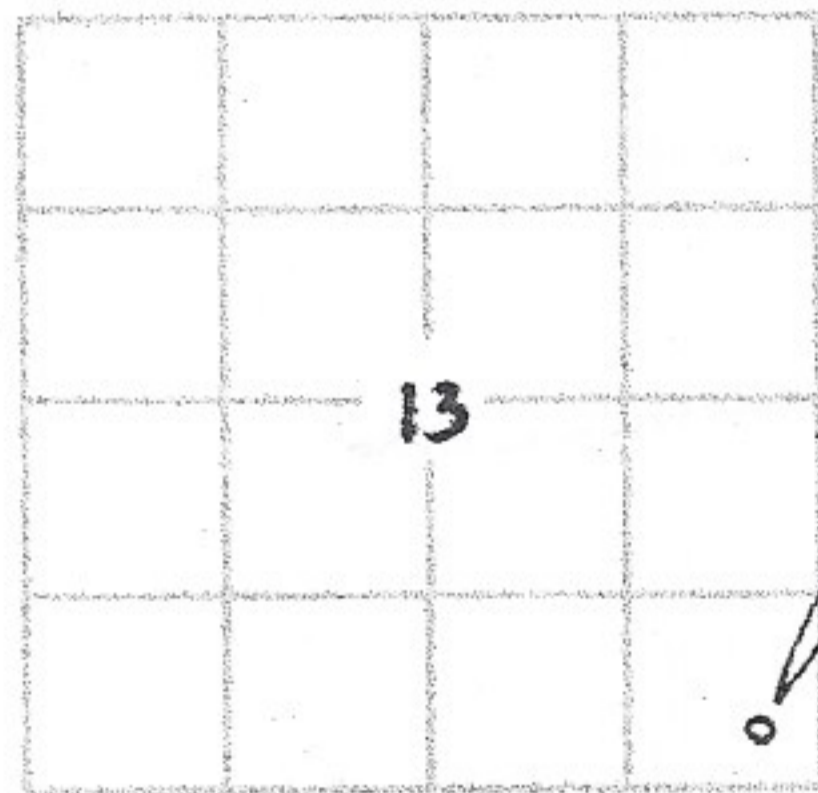
DRILLING TIME KEPT FROM 3500 TO 4730

SAMPLES EXAMINED FROM 3800 TO 4730

GEOLOGICAL SUPERVISION FROM 3800 TO 4730

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2624+ 408	2626+ 406
B/ANH.	2659+ 378	2659+ 373
HEEBNER	4021- 989	4021- 989
LANSING	4063- 1031	4063- 1031
STARK	4272- 1240	4274- 1242
HUSHPOCKNEY	4310- 1278	4310- 1278
B/KC	4336- 1304	4338- 1306
FORT SCOTT	4520- 1488	4520- 1488
CHEROKEE	4550- 1518	4550- 1518
MISSISSIPPI	4626- 1594	4627- 1595



API: 15-193-20980

REMARKS

12-1-16 SPUD  
 12-2 @ 249'  
 12-3 @ 1425'  
 12-4 @ 2715'  
 12-5 @ 3485'  
 12-6 @ 4142'  
 12-7 @ 4269'  
 12-8 @ 4338'  
 12-9 @ 4523'  
 12-10 @ 4730'

4000

LS. wt Foss.ool. Calcitic

LS wt Vch lgy.

**HEEBNER 4021-989**  
Sh. Blk Carb.

Sh. Lt. G. Blue ls Sdy.

**TORONTO 4041-1009**

LS wt Sh Foss. Foss. Pr. F. Vlsch  
DK Br. Blk Wry Stn. VSSFD No Flour Noodor

LS wt Vsh Foss S&A

Sh Rd

**LANSING 4063-1031**

LS. wt Sliool.ool. Vsl. Chly.

LS. Tn wt ool. Sli Calcitic

Sh Rd.

4100

LS. Tn wt Sli. Foss Sli. & Vsl. Calcitic

Δ Orange

LS. wt Lgy. Vsl. Foss

LS. wt Lgy. V Foss. Svc. Sli Dolomitic

LS. wt Chly.

Sh. Rd.

LS. wt Sli Foss Sli Chly.

VIS: 64  
WT: 9.4  
WL: 10.8  
CWL: 4000

LS. wt. Vsl. Foss Vsl. A

LS Tn lgy. Vsl. A

**MUNCIE CREEK 4190-1158**  
Sh Blk Carb.

LS Br Vsl. Foss Sli Calcitic

Sh Lgy. W.

LS Tn Sli Foss F. Vlyd T. Br Stn. T. Fg  
No Flour (1) piece. Noodor

LS. wt Tn Sli A

Sh Blk.

LS Br lgy. Vsl. Foss.

\* Bottom 62' appeared to me to 30-40% oil  
KBS

4200

DST (1)

**DST (1) 4185-4269**

1<sup>st</sup> OPEN: Blow built to 4 1/2"

2<sup>nd</sup> OPEN: " " " 4"

30-60-45-60

Rec. 62' 50CM (51.0%)

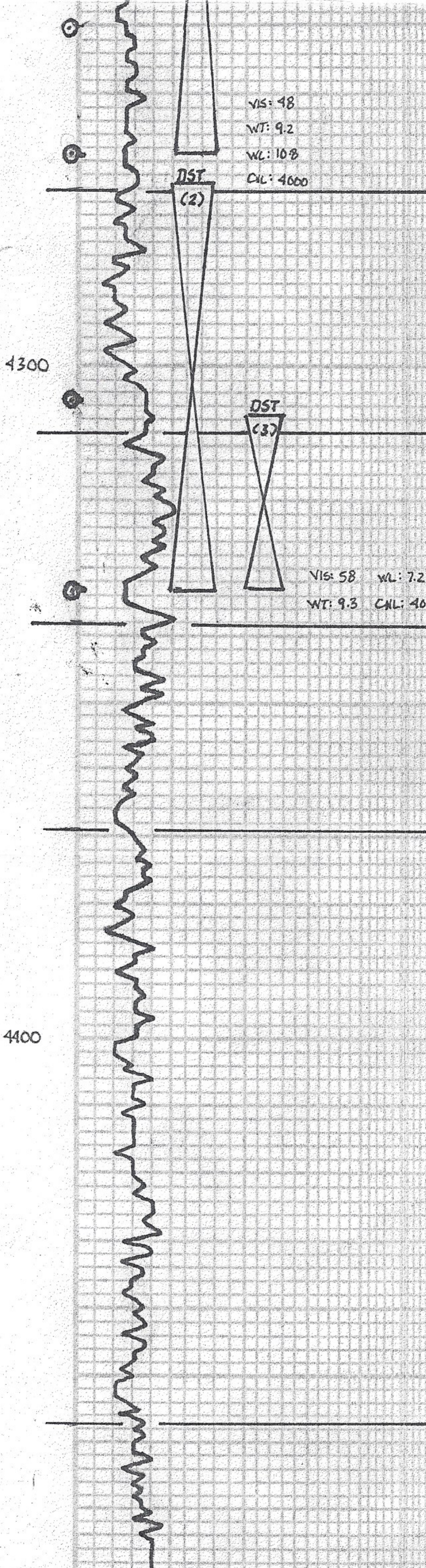
62' 0CM (101.0%)

TF: 124'

95% M)

90% M)

SP: 31-53



Sh. Lt. Lg.  
 LS Lg. Tn wt Sil. Foss VSii Chly.  
 P. Vg p Lt Bt Spcl. Stn. SSFD F. Flow  
 F. Odor

**DST (2) 4273-4333**  
 1<sup>st</sup> OPEN Bottom Bucket 1 min.  
 2<sup>nd</sup> OPEN: " " 2 "  
 15-75-30-60  
 Rec. 108' GIP  
 267' SOCMW  
 315' SOCMW  
 756' OMCW  
 189' VSMW  
 (5% oil, 55% w. 40)  
 (5% oil, 65% w. 3)  
 (10% oil, 80% w.)  
 (95% w. 5% M)  
 TF: 1527'  
 RW: .50 @ 28  
 CHL: 34000  
 FP: 272-442  
 481-715°  
 SIP: 1304-1242°  
 BB: None

**STARK 4274-1242**  
 Sh. Blk

Sh. Rd Lg.  
 LS Lg. wt Sil.ool. Sil. Chly.  
 LS Lg. Sil. Foss. Foss F. Vg p Lt Spcl Stn  
 SSFD Dull Flow F. Odor

**DST (3) 4307-4333**  
 1<sup>st</sup> OPEN: Bottom bucket 3 min.  
 2<sup>nd</sup> OPEN: " " 6 "  
 30-60-30-60  
 Rec. 2223' GIP  
 234' 60 (80% oil 20% M)  
 126' OGWM (20% G) 5% oil 5%  
 TF: 360'  
 FP: 42-85  
 88-140°  
 SIP: 1223-1169°  
 BB: 3"  
 BB: Bottom Bucket 11 min

**HUSHPUCKNEY 4310-1278**  
 Sh. Blk Carb.

Sh. Lg.  
 LS  
 LS wt dol. Foss VSii Δ F. Vg p  
 Lt Bt Spcl-Sol. Stn SSFD Ti. 6.85  
 F. Flow F. Odor

**B/KC 4338-1306**

Sh. Rd Lg.  
 LS Tn Lg. Foss  
 Sdy sh. Lt. Lt. Bt - Silty

\* Bottom 126' Appeared to Me to be muddy oil (40SD% oil) KBS

**MARMATON 4369-1337**

LS. Tn wt VSii Foss SA Δ  
 Sh. Rd.  
 Sh. Rd. Silty. same shly LS.

LS. Lg. Foss.  
 Sh. Rd.  
 Sh. Rd. Lg.

LS. Lt. Lg. VSii Foss Sil. Chly.  
 LS. Tn Sil. Foss Sil. Δ LS wt chly.

Sh. Rd. Lg.

**PAWNEE 4457-1425**

LS. Tn Lg. VSii Foss  
 LS. Lt. Lg. VSii Foss

4300

4400

4500

Samples to TD were near Terrible. 90% sh mostly Rd. G.

sh. L. G.  
Ls. Tn wt. VSl. Foss VSl. Ch. G.

SH BLK Carb.  
**FORT SCOTT 4520-1488**

Ls. Tn G. Sl. Foss Sl. A

Δ G. Sl. Foss

Ls. Lt G. wt VSl. Foss Sl. A

**CHEROKEE 4550-1518**  
SH BLK Carb.

Ls. wt. VSl. Ch. G.

Ls. Tn G. VSl. Foss Sl. A

sh. DK G.

**JOHNSON 4588-1556**

✓ LOG

Ls. Tn G. Sl. Foss P. V. Is. p. DK Br. BLK SW  
VSSFO - No Flow No odor

Sdy Ls Lt Blue

Sdy sh Lt G. Fr. Md. Gr. Sub Rd

sh Yellow G. weather Δ

VIS: 80  
WT: 9.3  
WL: 8.0  
CIL: 5000

**MISSISSIPPI 4627-1595**

Dol. Tn V Foss In Suc.

Ls. Tn wt V Foss In Suc.

Dol. G. Lt G. V Foss In Sl. Foss w/ R. G. Foss.

sh Yellow G.

Ls. Tn Foss Sl. A

Dol. G. V Foss In Suc. w/ DK G. Incl.

Ls. Tn wt dol. Foss Sl. A Glassy.

4700

Ls. Tn G. Sl. Foss Calcitic

Ls. G. Foss Calcitic

OTD 4720-1480