



KANSAS CORPORATION COMMISSION 1060206
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1060206

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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				

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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DIGITAL LOG (785) 625-3858

Dual Induction Log

API No.	15-051-26,123-00-00	
Company	TDL, Inc.	
Well	Hiatt No.1	
Field	Wildcat	
County	Ellys	State Kansas
Location	E2 W2 E2 SW 1320' FSL & 1855' FWL	
Sec: 7	Twp: 14S	Rge: 18W
Other Services	CNL/CDL MEL	

Permanent Datum	Ground Level	Elevation 2151
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	5/21/2011	
Run Number	One	
Depth Driller	3900	
Depth Logger	3899	
Bottom Logged Interval	3898	
Top Log Interval	200	
Casing Driller	8.625 @ 234	
Casing Logger	235	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	10,000	
Density / Viscosity	9.4	59
pH / Fluid Loss	10.0	8.4
Source of Sample	Flowline	
Rm @ Meas. Temp	.3	@ 77
Rmf @ Meas. Temp	.23	@ 77
Rmc @ Meas. Temp	.41	@ 77
Source of Rmf / Rmc	Charts	
Rm @ BHT	.2	@ 117
Operating Rig Time	3 1/2 Hours	
Max Rec. Temp. F	117	
Equipment Number	17	
Location	Hays	
Recorded By	C. Desaire	
Witnessed By	Tom Denning	

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Comments

Thank you for using Log-Tech, Inc.
 (785) 625-3858
 Hays KS,
 3/4 N of Log-Tech to Springhill Rd,
 2 W, Turn N, E & N Into

Database File: c:\warrior\data\tdi_hiatt no.1\tdihd.db
 Dataset Pathname: dil\tdistk
 Presentation Format: dil2in
 Dataset Creation: Sat May 21 09:58:03 2011
 Charted by: Depth in Feet scaled 1:600

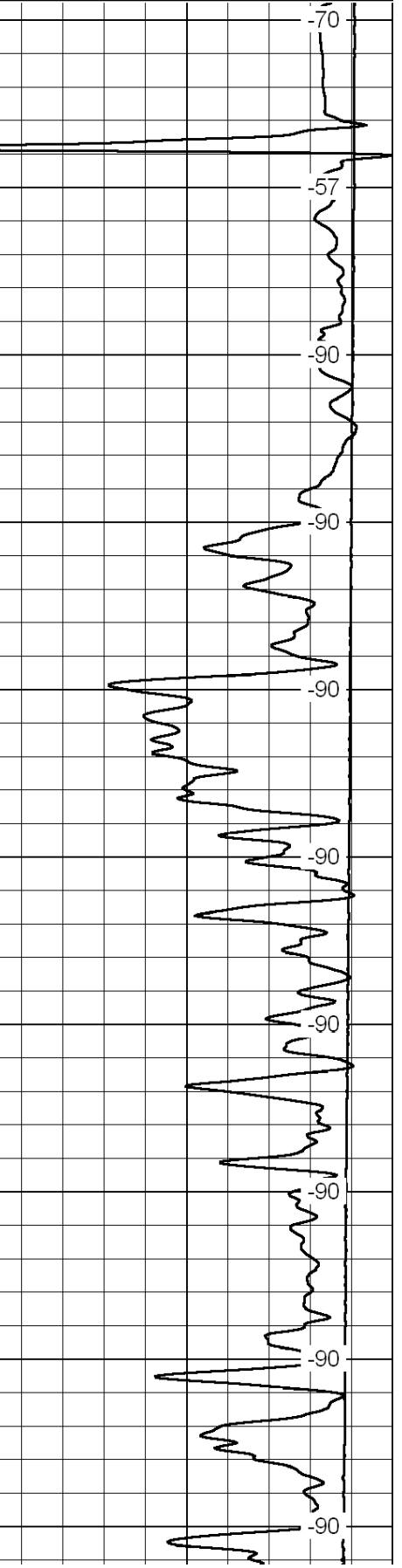
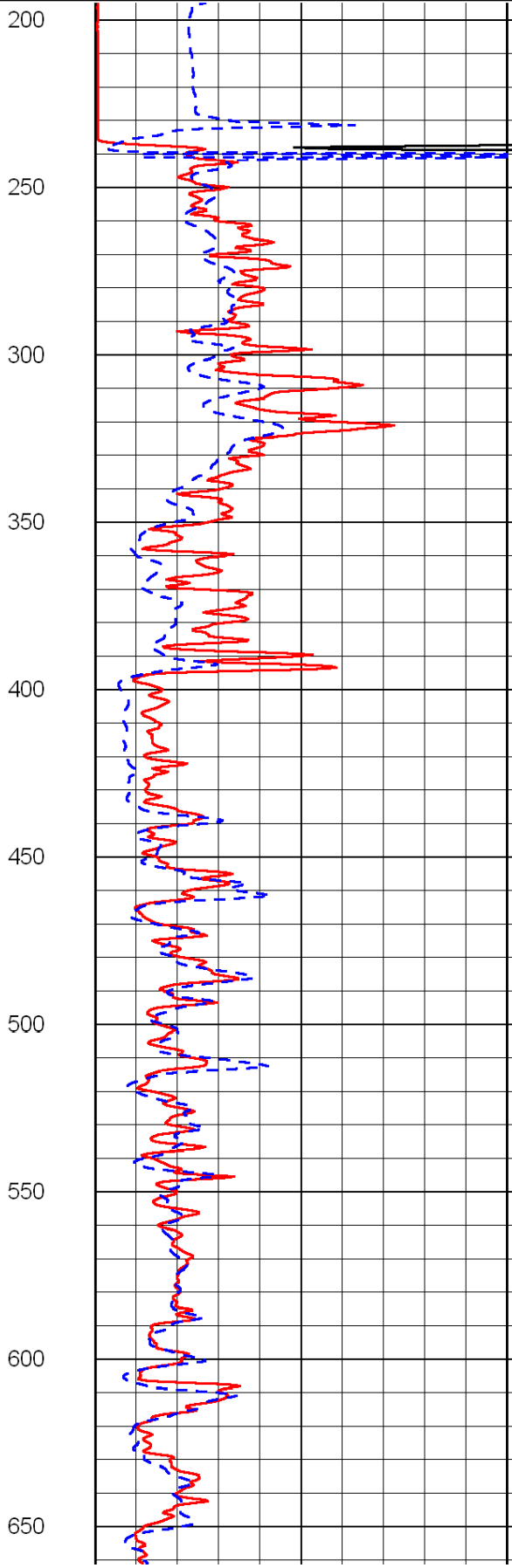
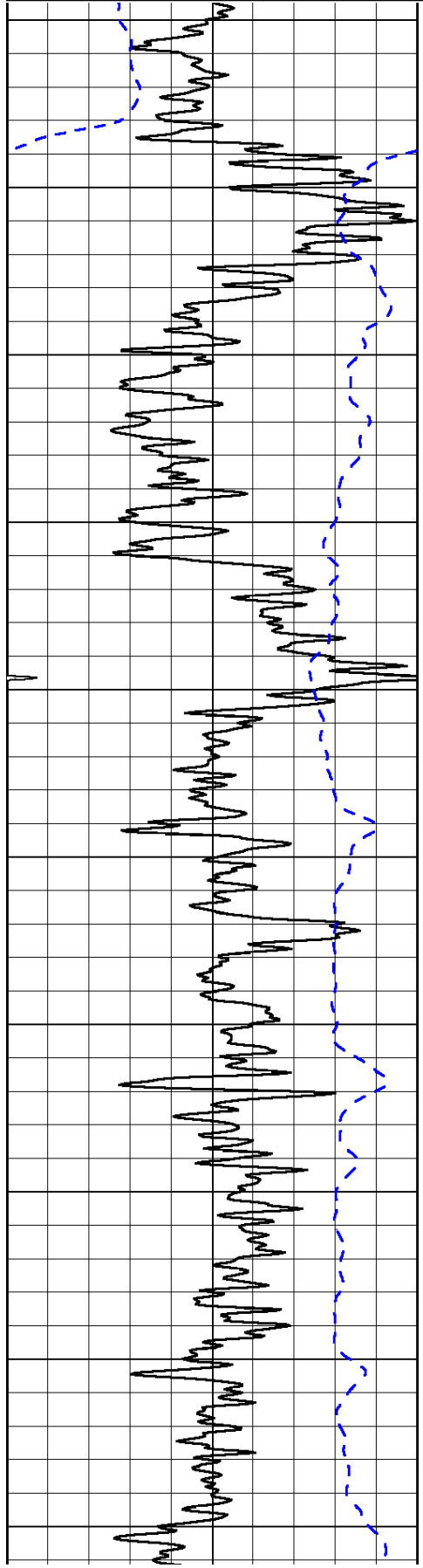
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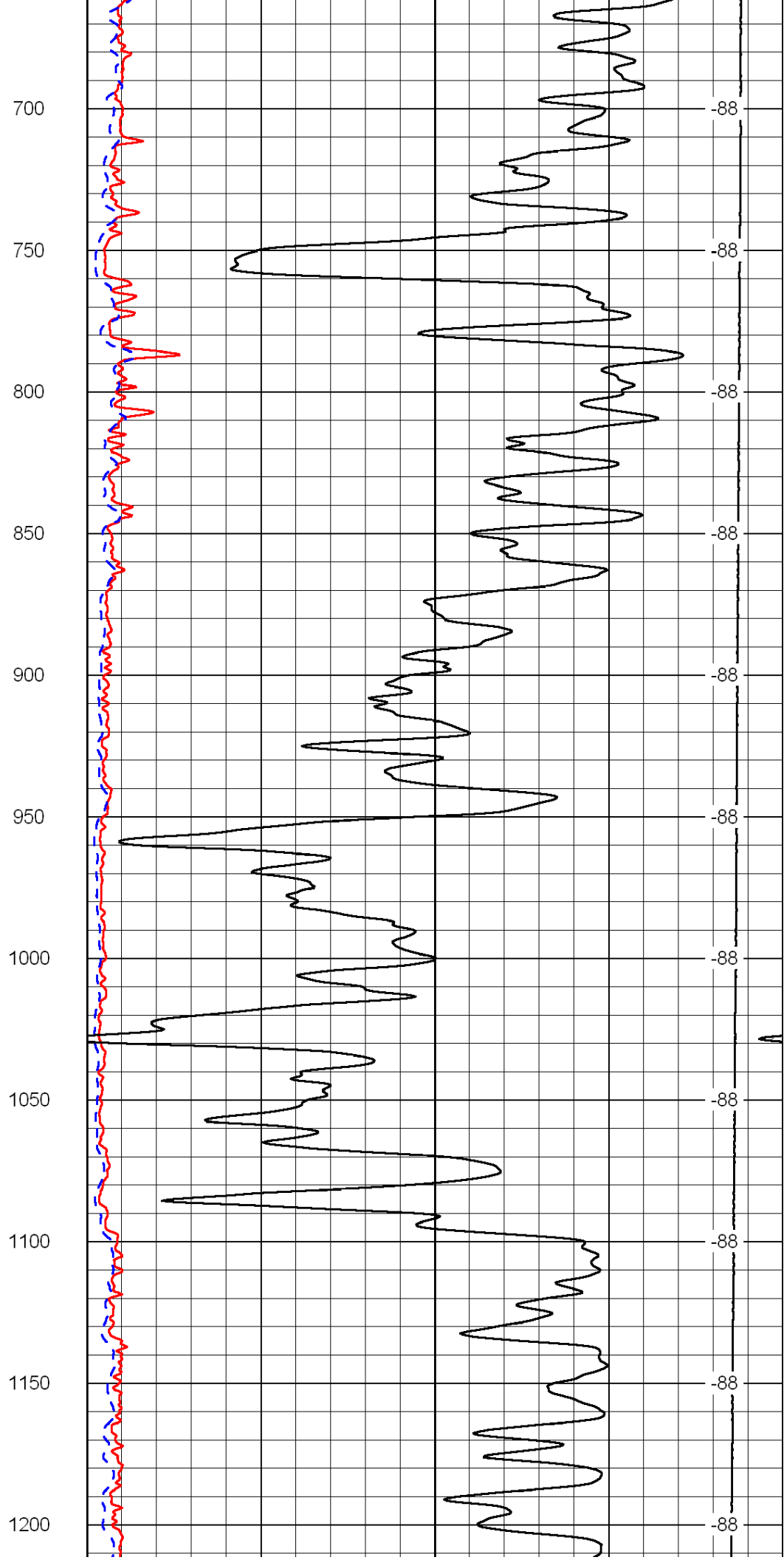
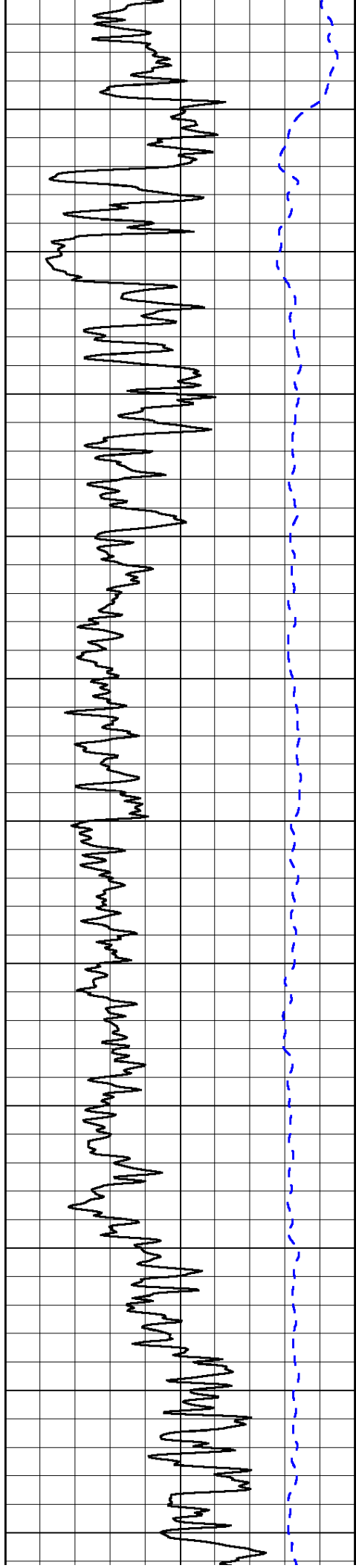
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0	Deep Resistivity	50

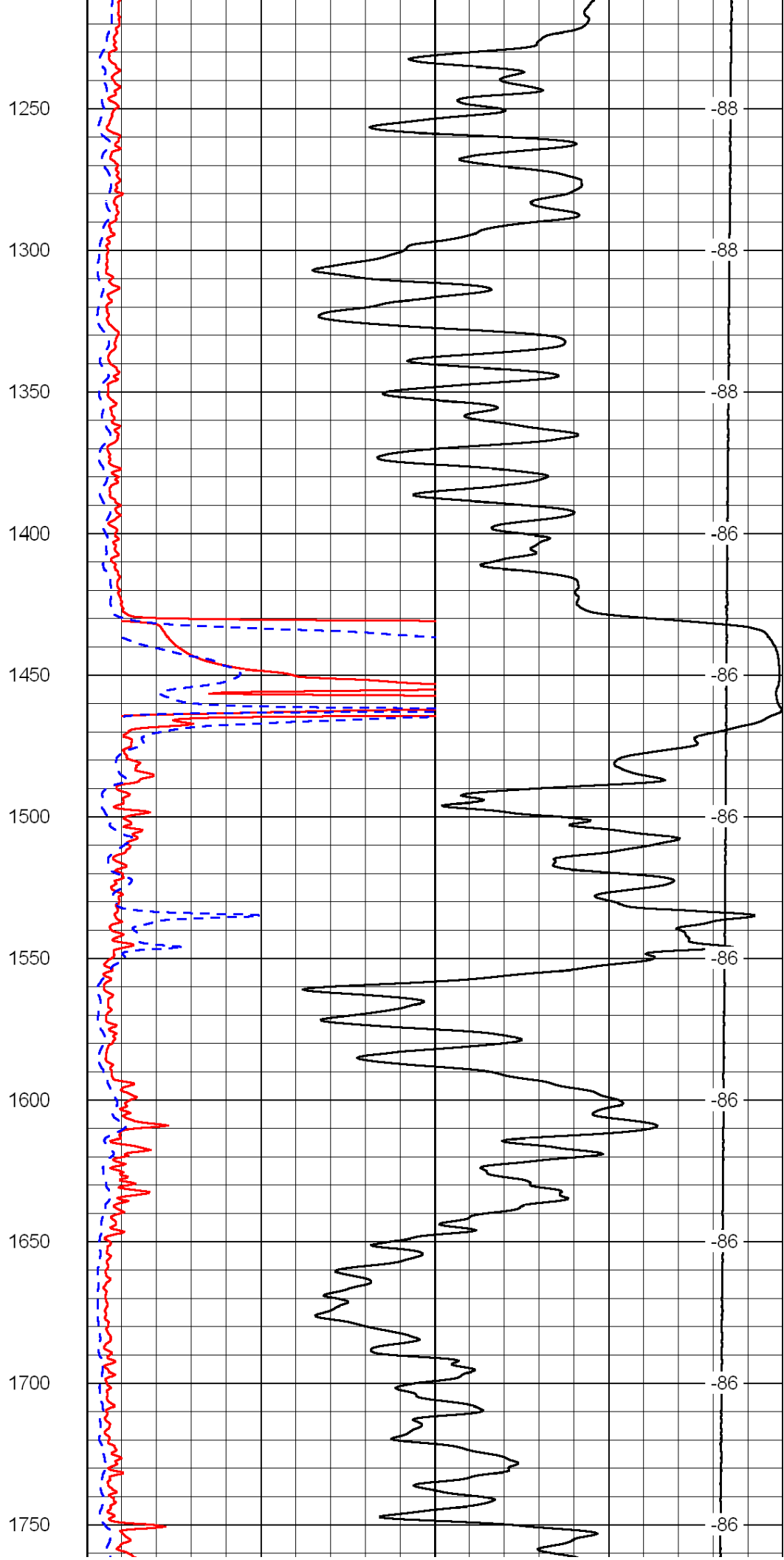
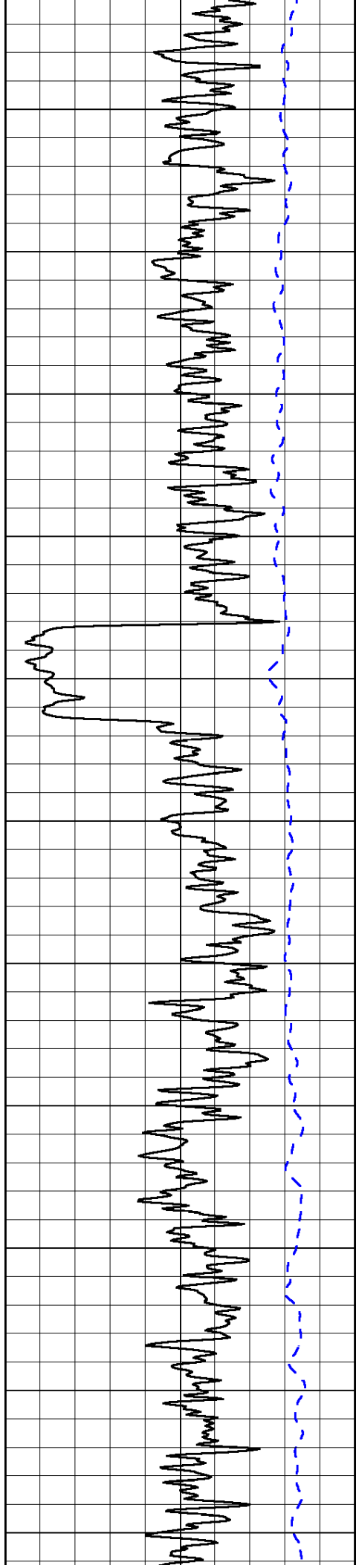
LSPD

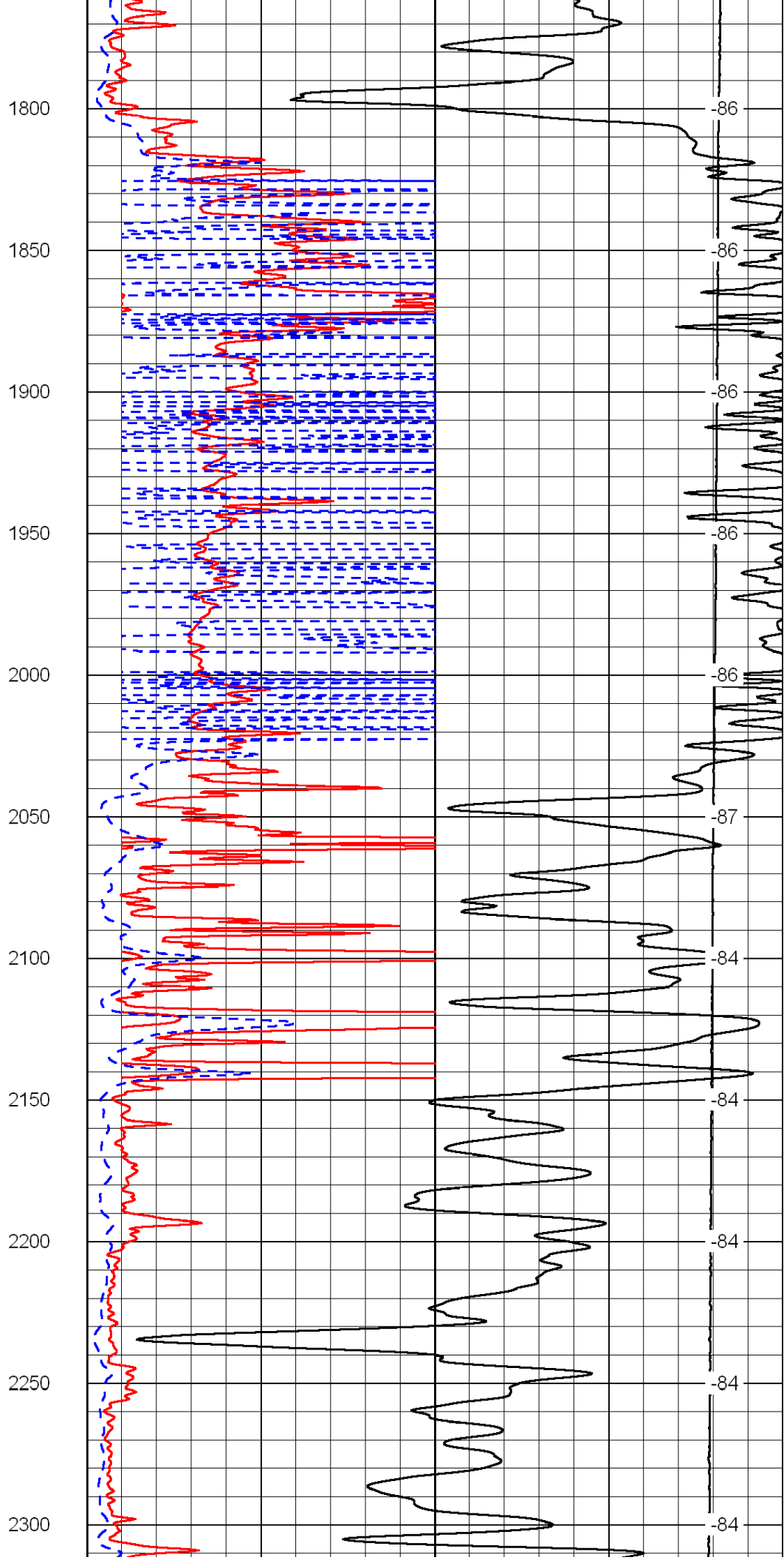
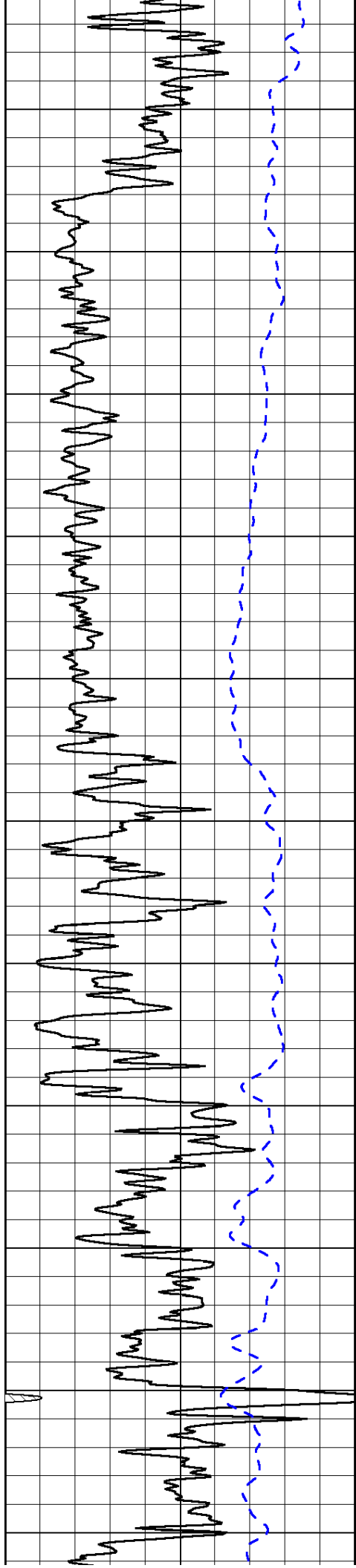
1000	Conductivity	0
15000	Line Tension	0

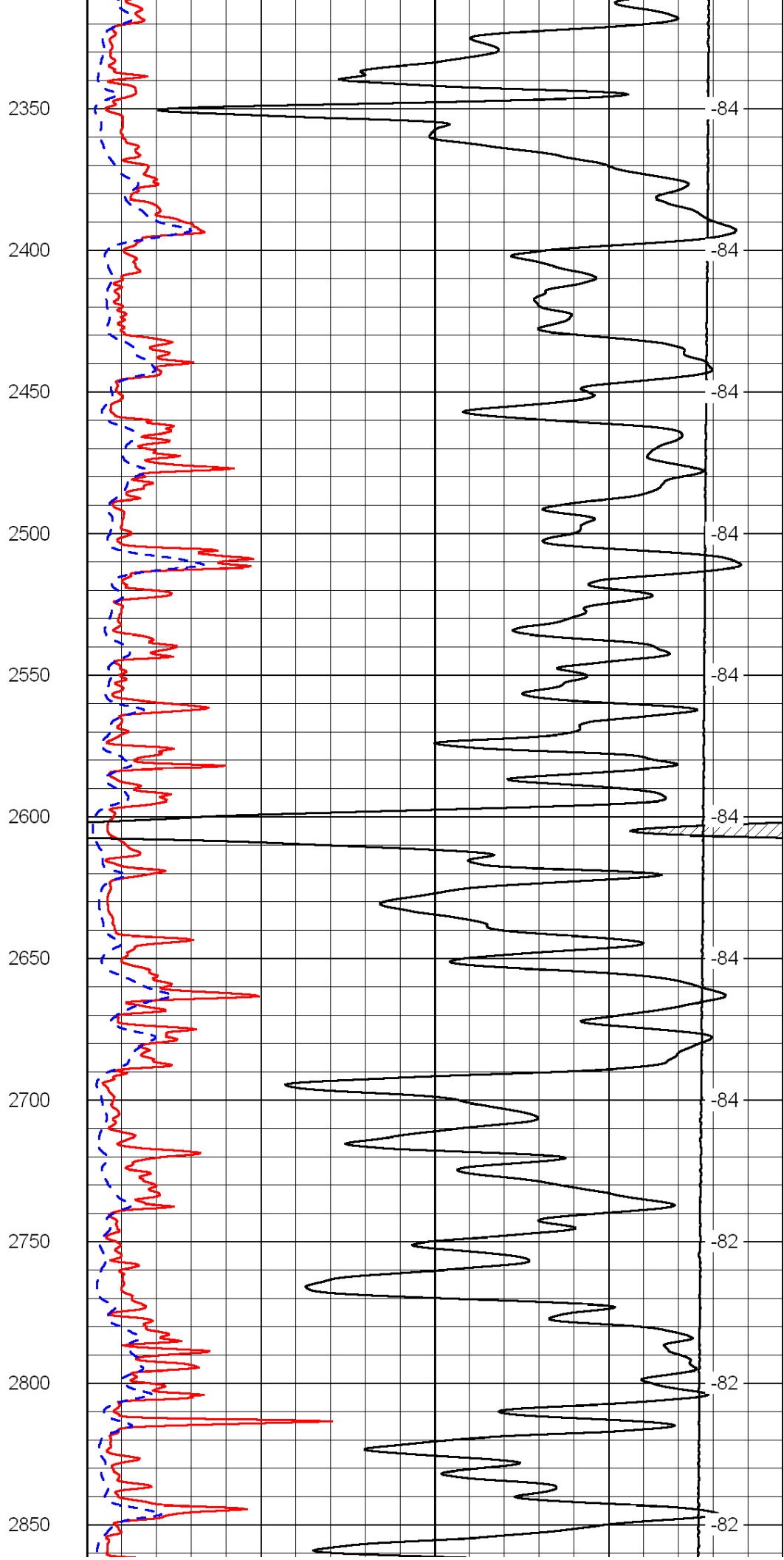
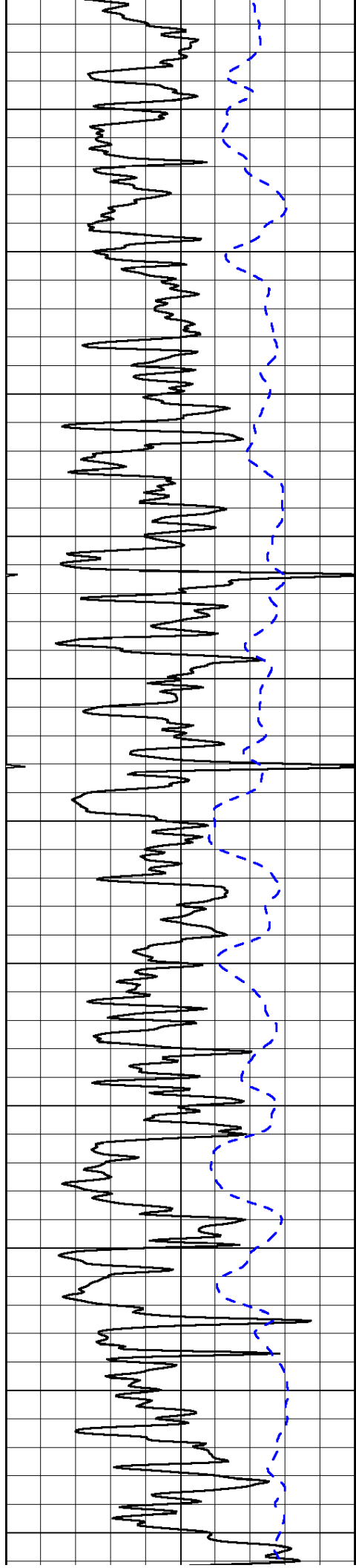
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50	Deep Resistivity	500

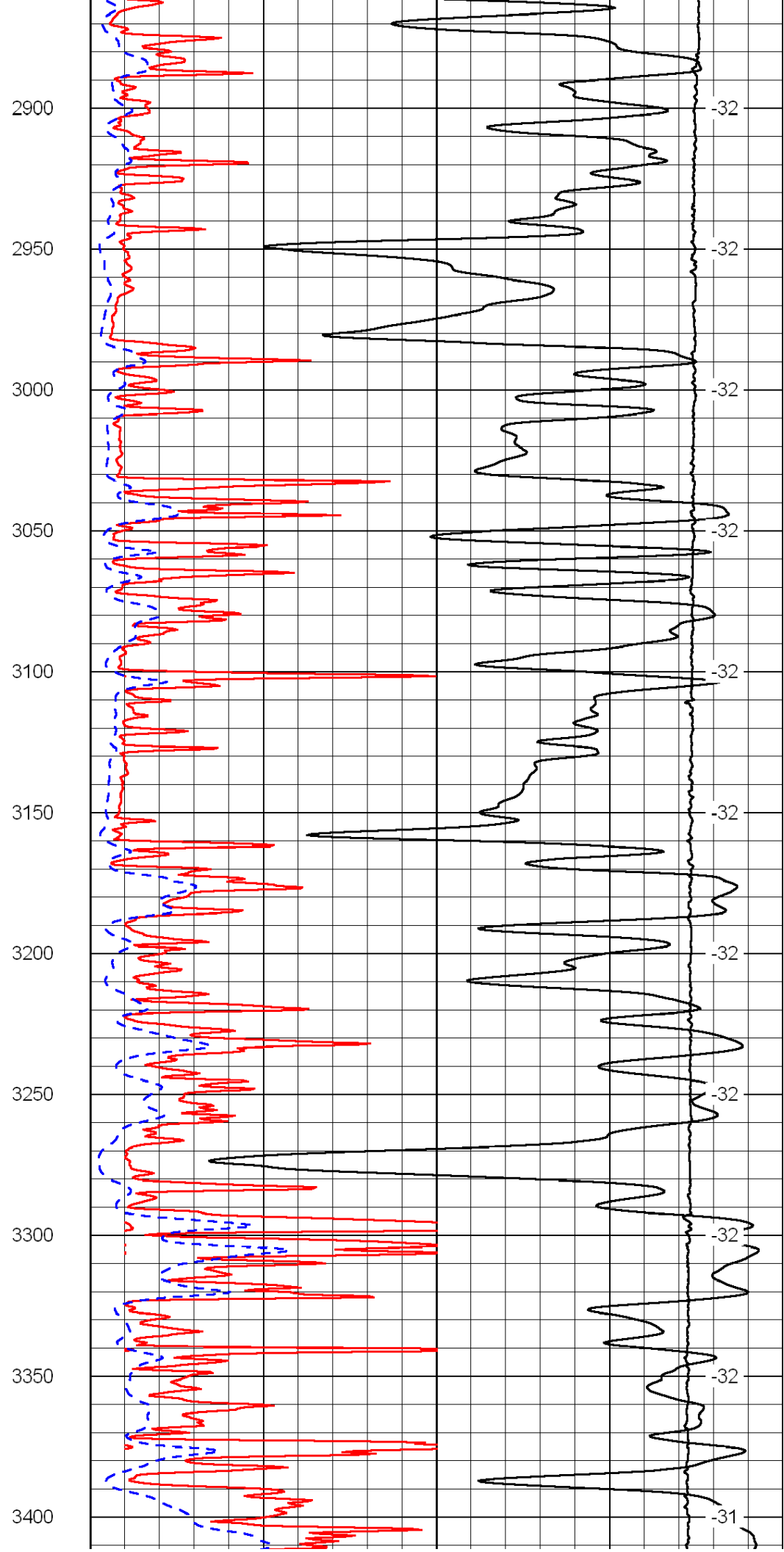
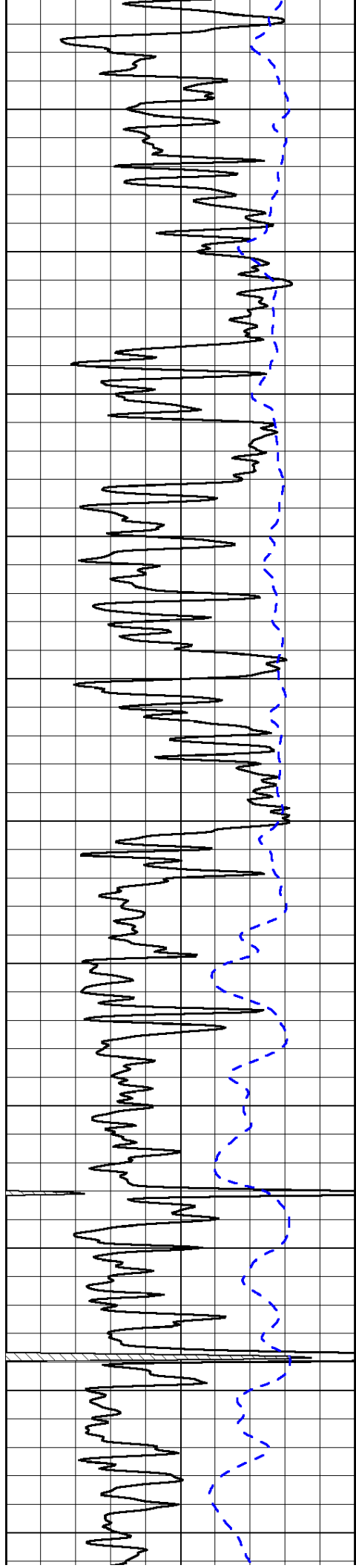


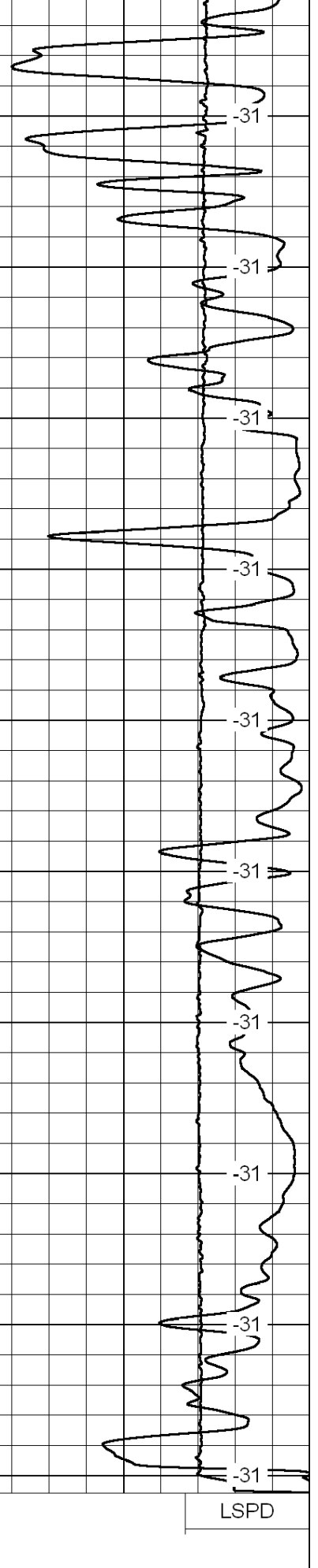
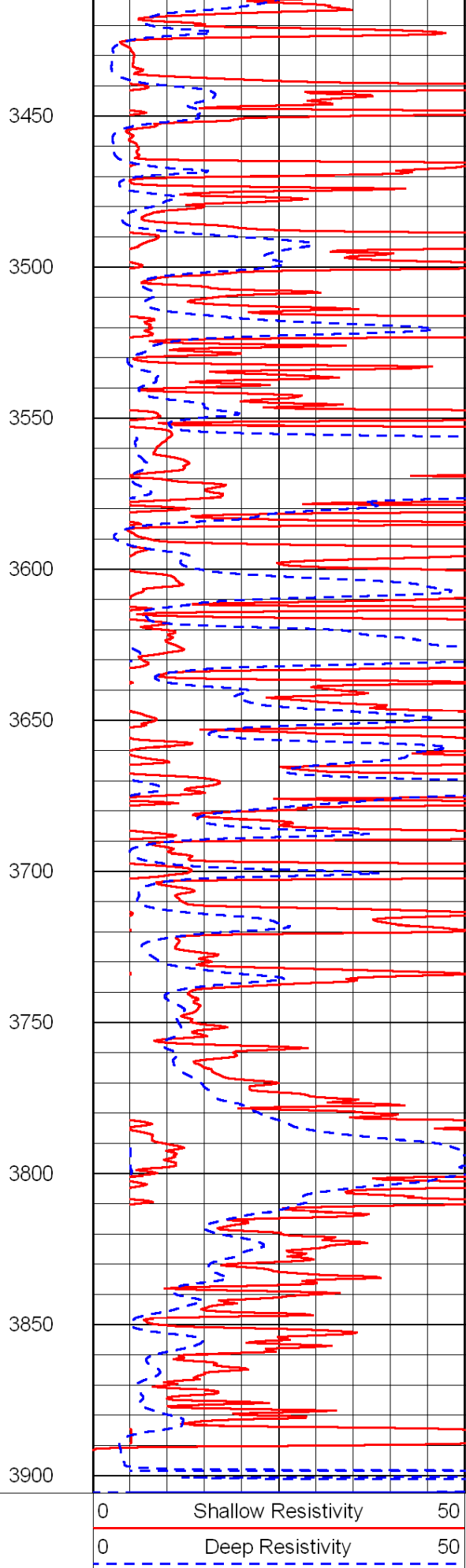
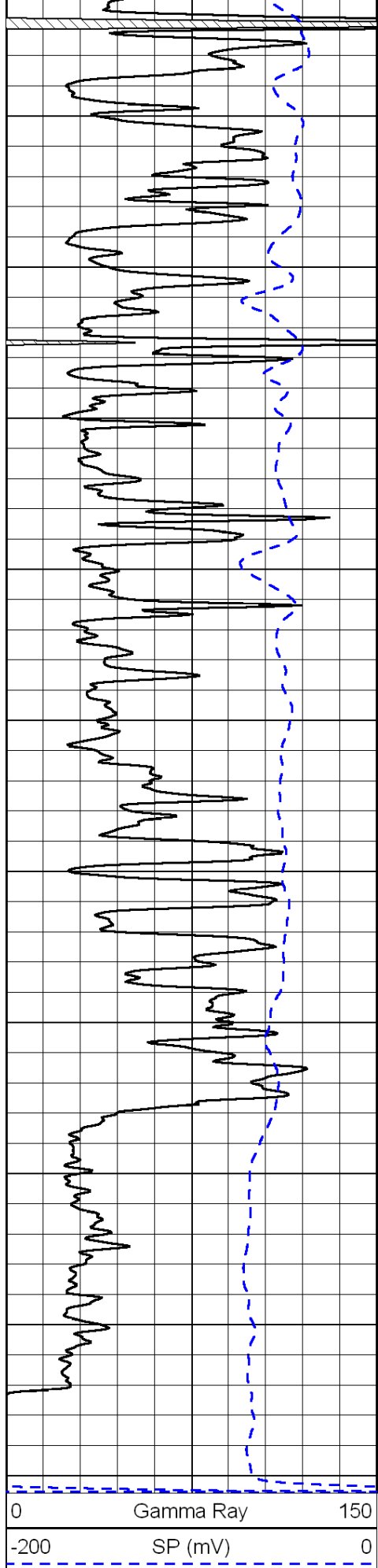












0 Gamma Ray 150
 -200 SP (mV) 0

0 Shallow Resistivity 50
 0 Deep Resistivity 50

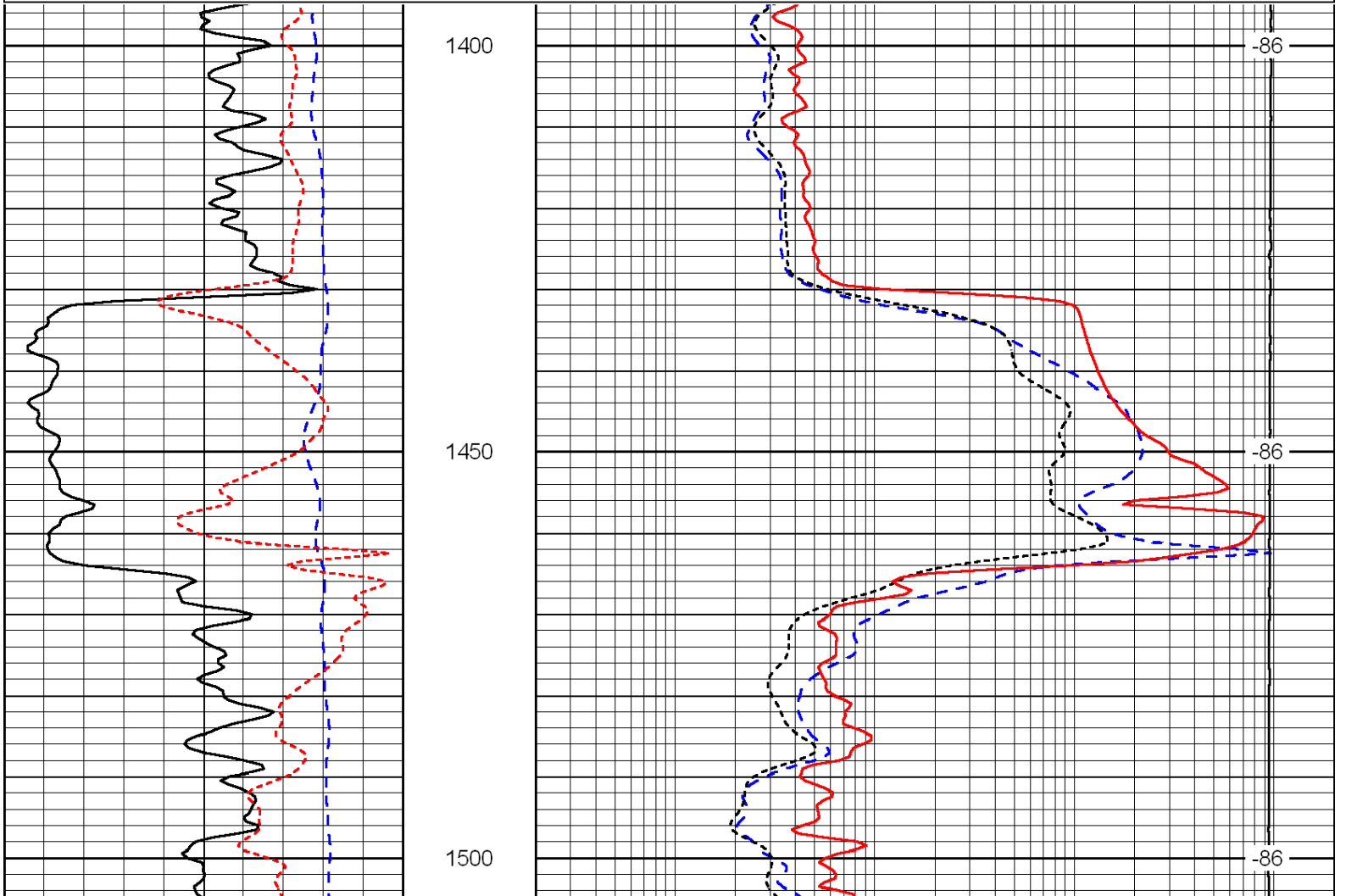
LSPD

1000 Conductivity 0
 15000 Line Tension 0

50 Shallow Resistivity 500

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 Dataset Pathname: dil/tdistk
 Presentation Format: dil
 Dataset Creation: Sat May 21 09:58:03 2011
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	0.2	Deep Resistivity	2000
-200	SP (mV)	0	0.2	Medium Resistivity	2000
-160	Rxo / Rt	40	0.2	Shallow Resistivity	2000
			15000	Line Tension	0



0	Gamma Ray	150	0.2	Deep Resistivity	2000
-200	SP (mV)	0	0.2	Medium Resistivity	2000
-160	Rxo / Rt	40	0.2	Shallow Resistivity	2000
			15000	Line Tension	0

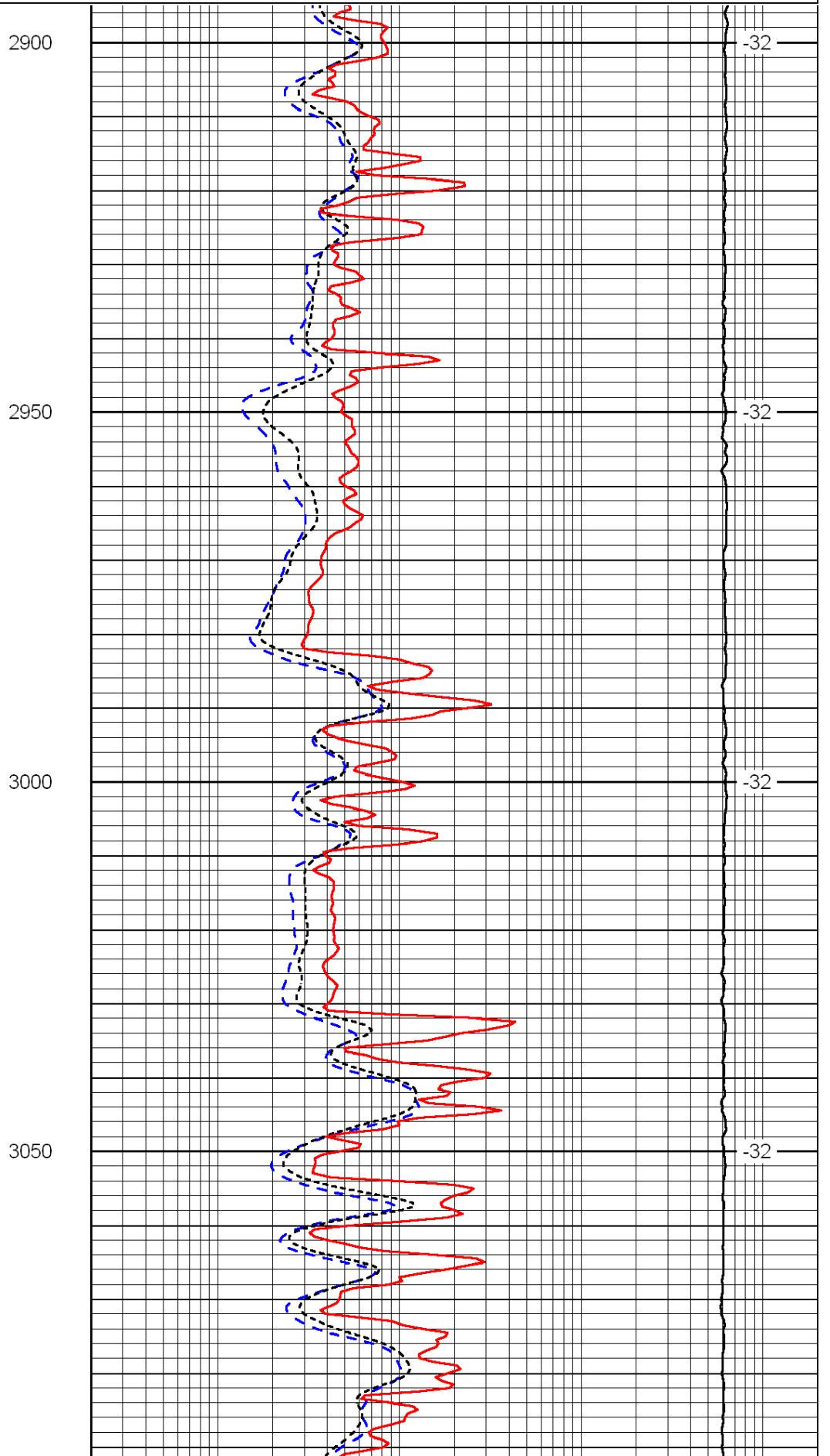
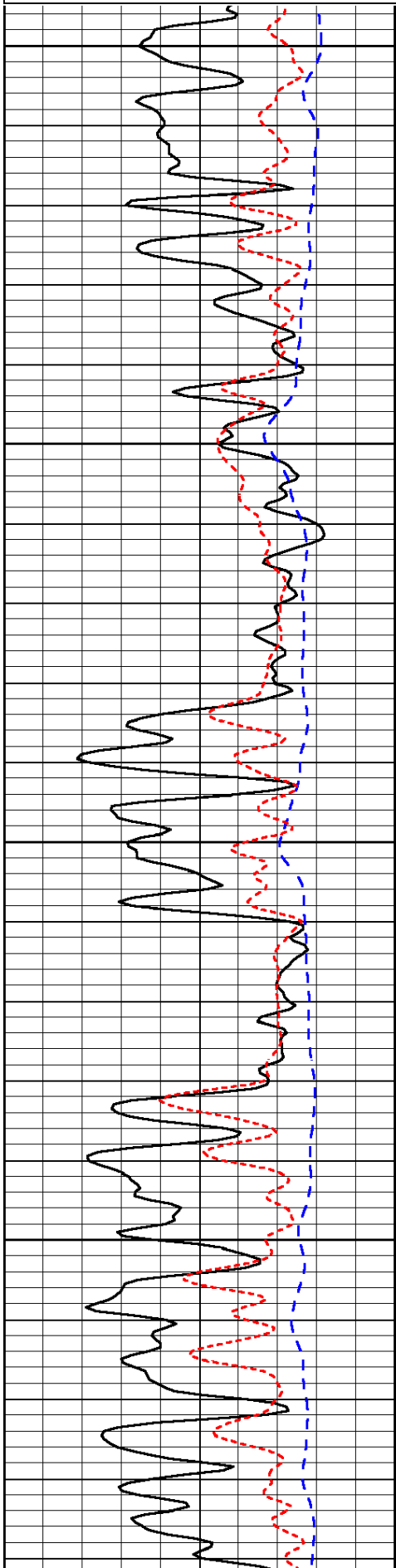
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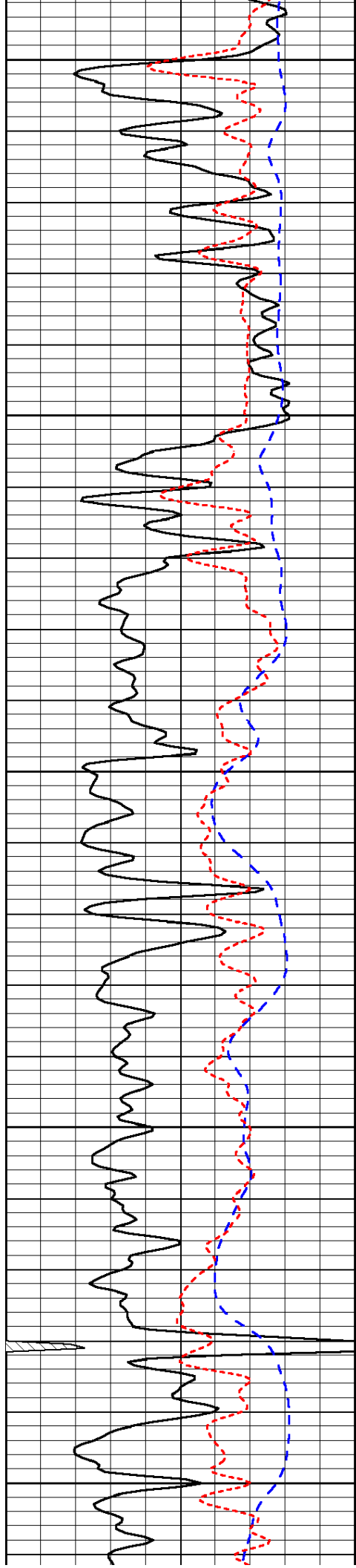
0	Gamma Ray	150	0.2	Deep Resistivity	2000
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0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD





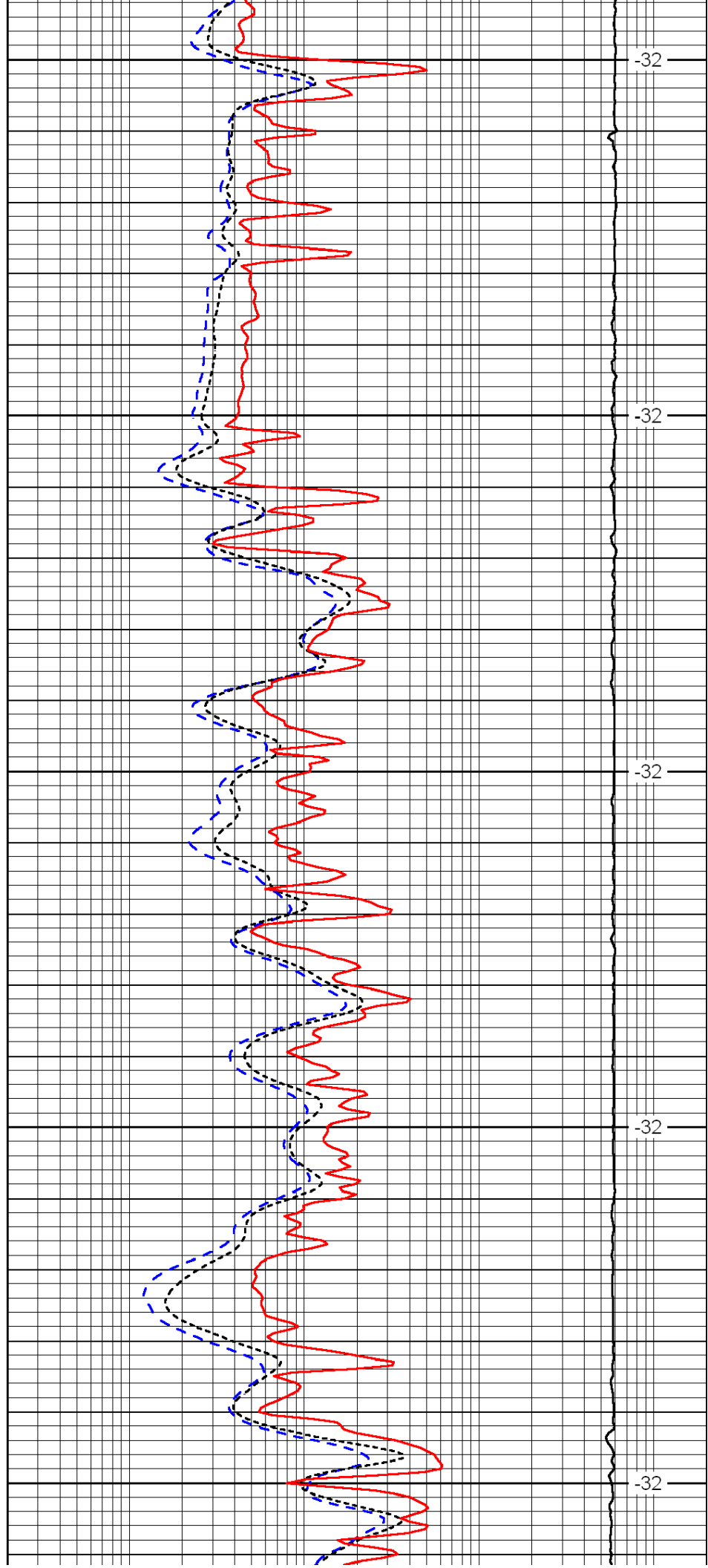
3100

3150

3200

3250

3300



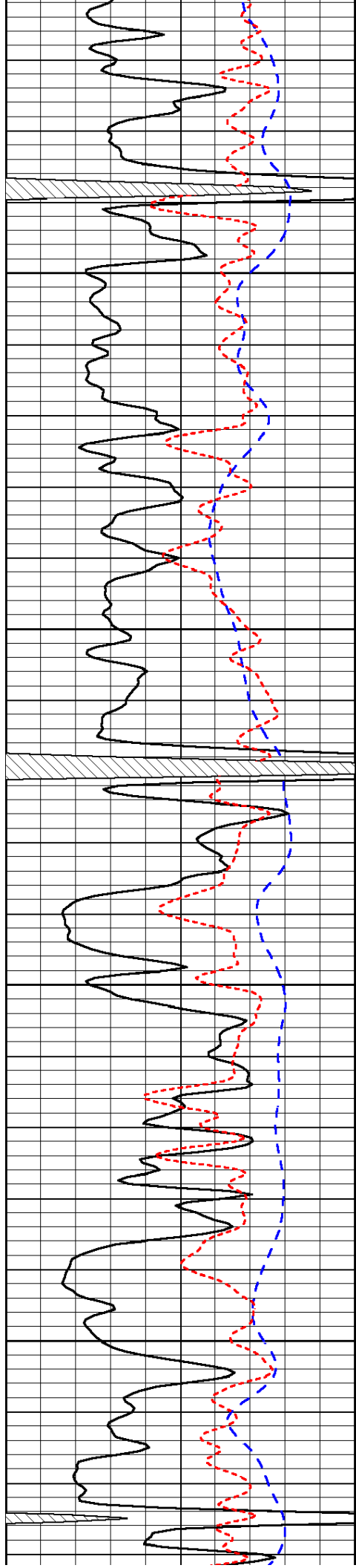
-32

-32

-32

-32

-32

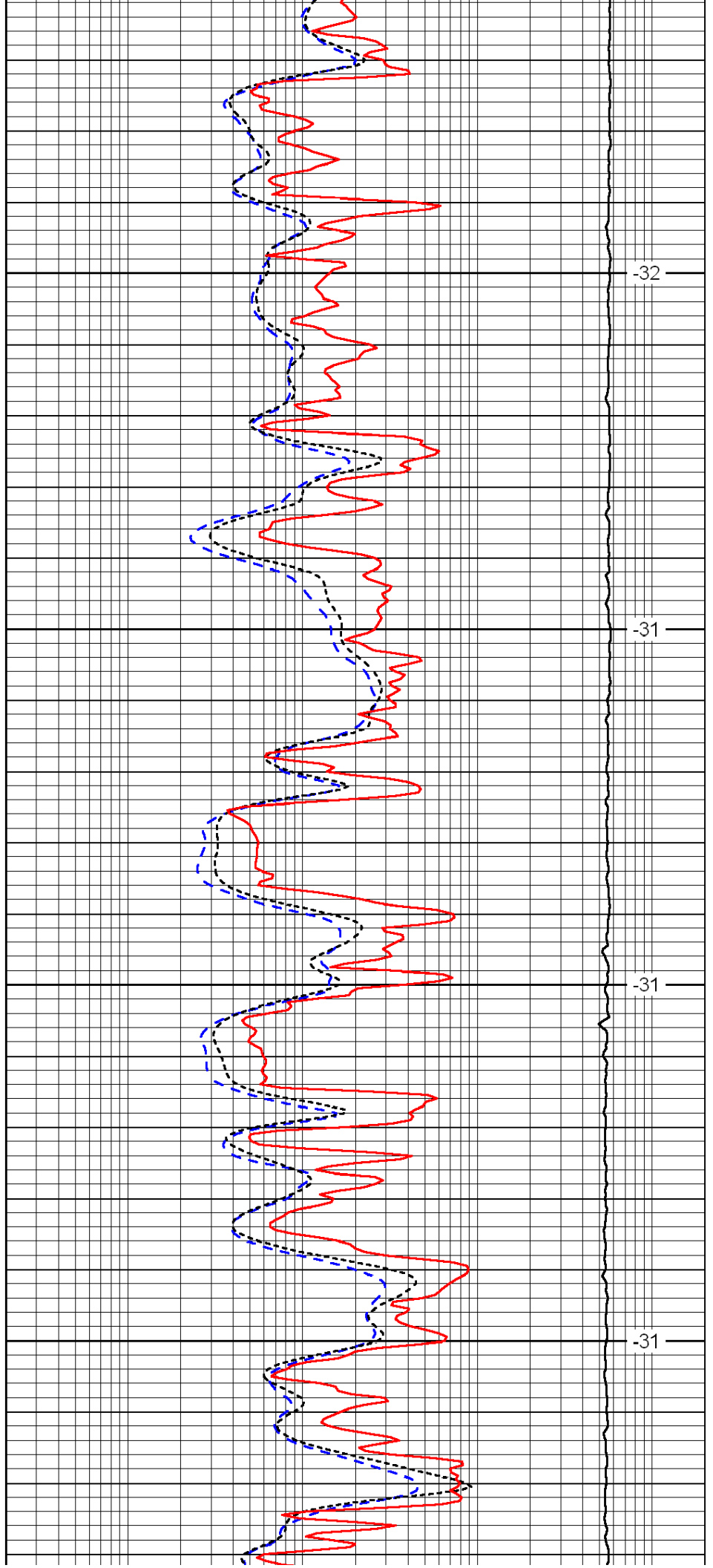


3350

3400

3450

3500

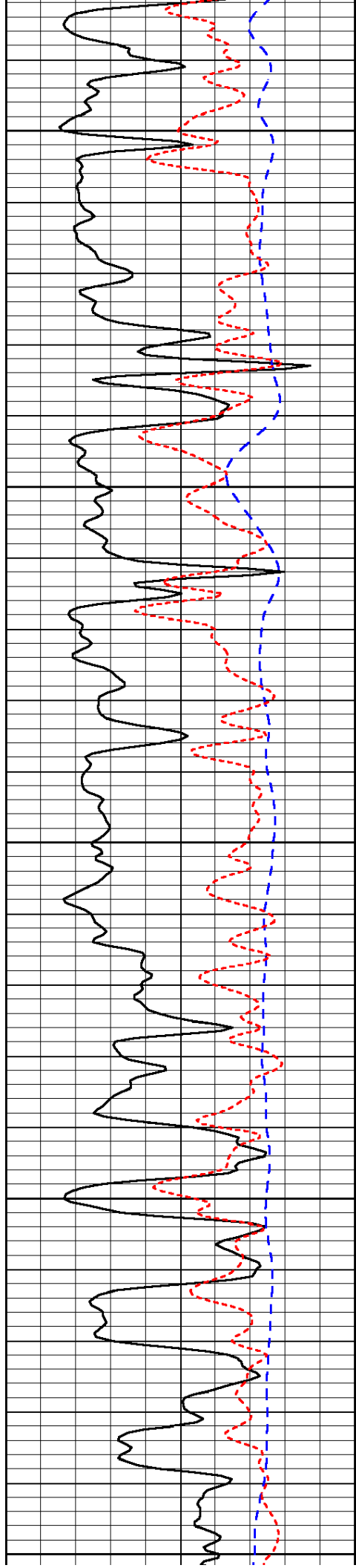


-32

-31

-31

-31



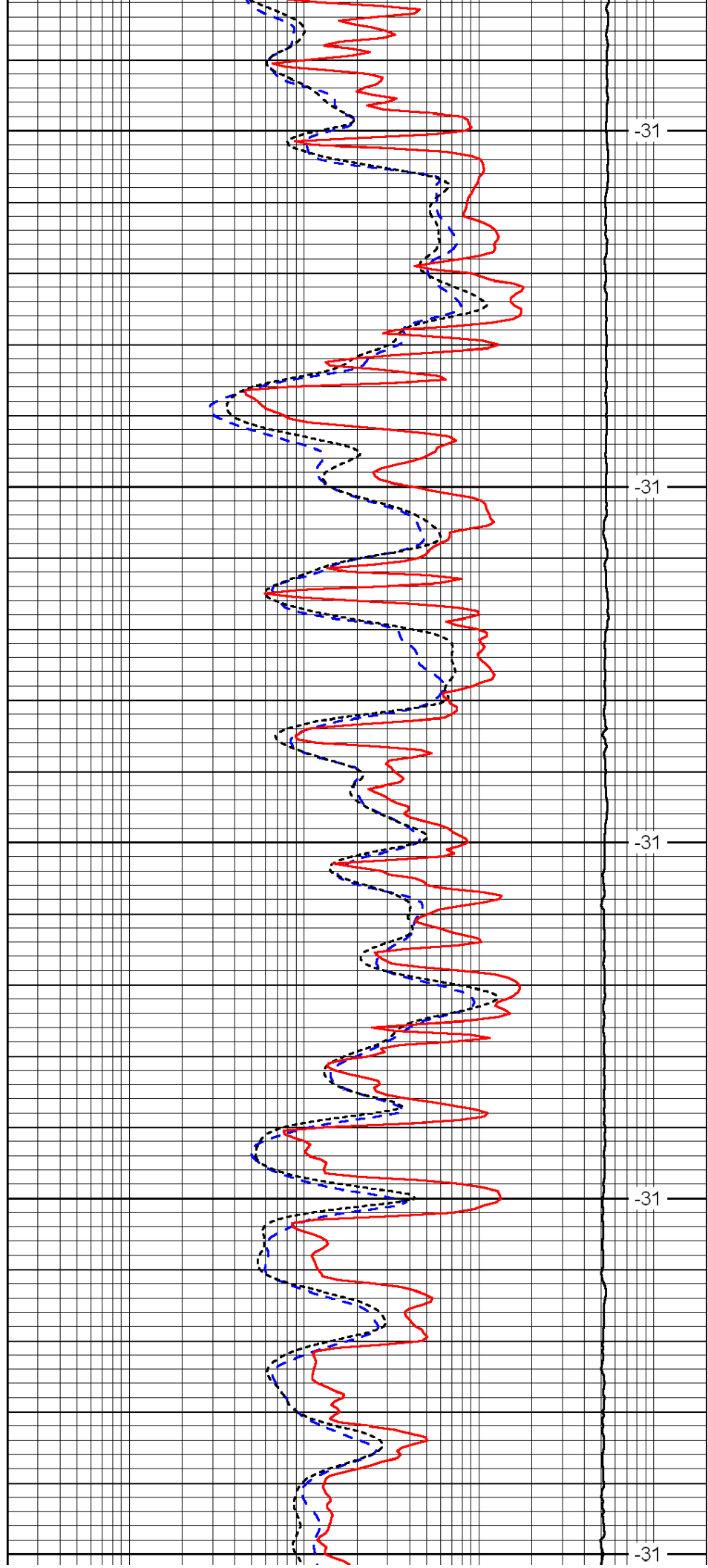
3550

3600

3650

3700

3750



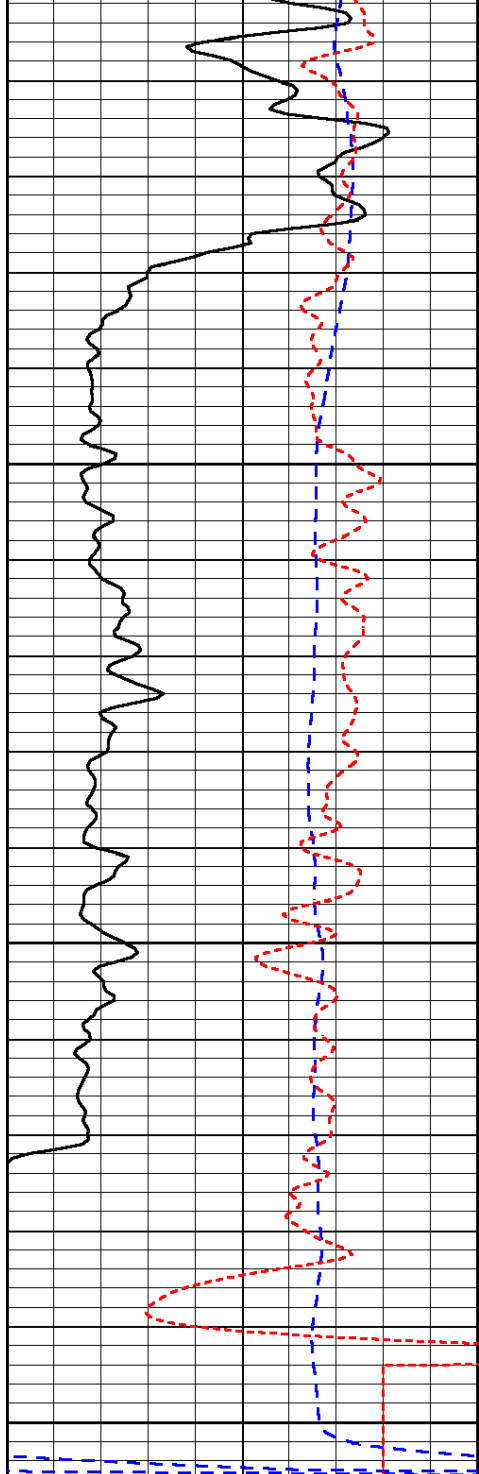
-31

-31

-31

-31

-31

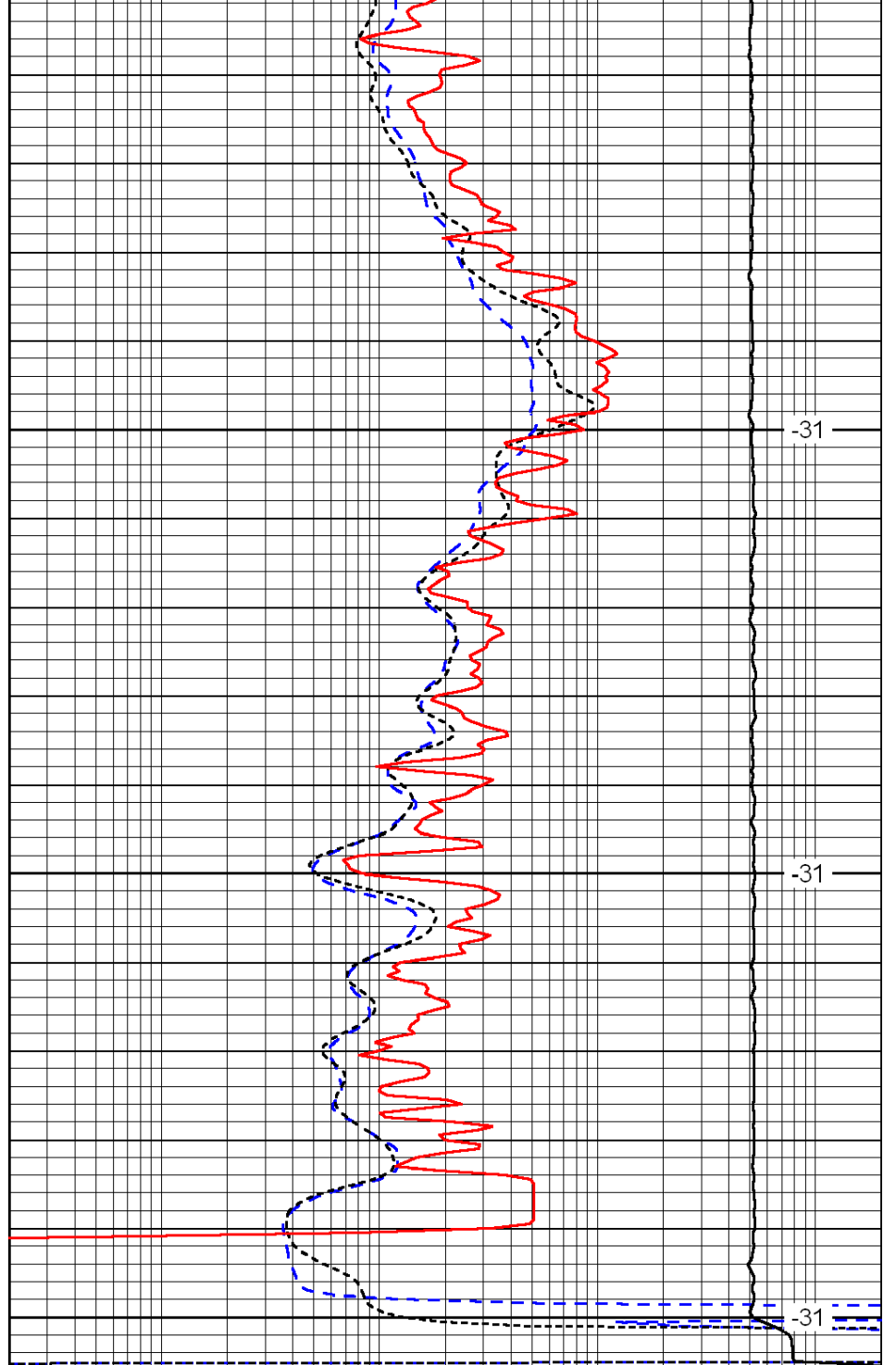


3800

3850

3900

0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40



-31

-31

-31

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



DIGITAL LOG (785) 625-3858

Dual Compensated Porosity Log

API No. 15-051-26,123-00-00

Company TDI, Inc.
 Well Hiatt No.1
 Field Wildcat
 County Ellis
 State Kansas

Location E2 W2 E2 SW
 1320' FSL & 1855' FWL

Sec: 7 Twp: 14S Rge: 18W

Other Services
 DIL
 MEL

Permanent Datum Ground Level Elevation 2151
 Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

K.B. 2161
 D.F.
 G.L. 2151

Date 5/21/2011

Run Number One

Type Log CNL / CDL

Depth Driller 3900

Depth Logger 3899

Bottom Logged Interval 3878

Top Logged Interval 2900

Type Fluid In Hole Chemical

Salinity, PPM CL 10,000

Density 9.4

Level Full

Max. Rec. Temp. F 117

Operating Rig Time 3 1/2 Hours

Equipment -- Location 17 Hays

Recorded By C. Desaire

Witnessed By Tom Denning

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	234	8.625	24#	00	234
2	7.875	234	3900				

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Comments

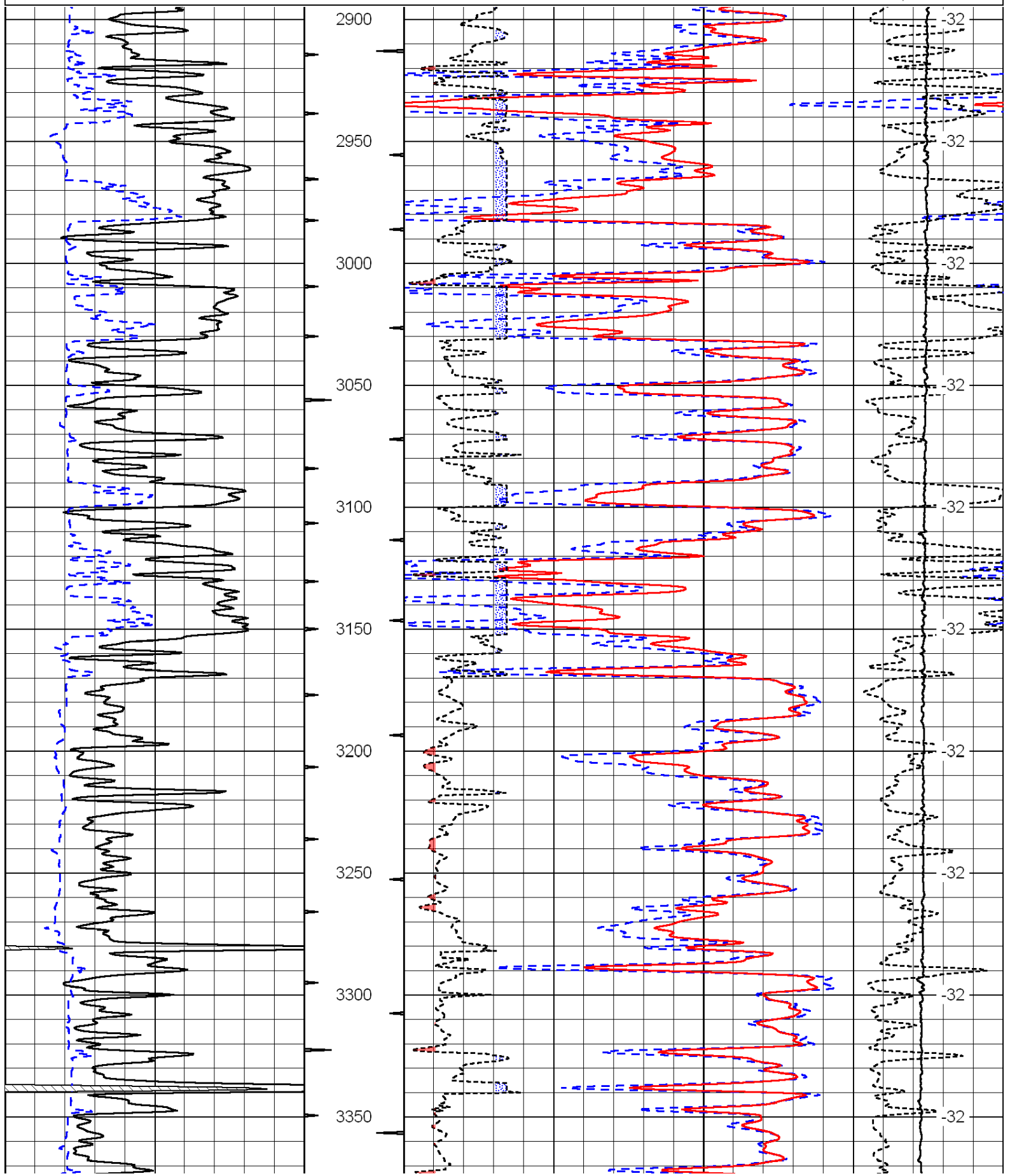
Thank you for using Log-Tech, Inc.
 (785) 625-3858

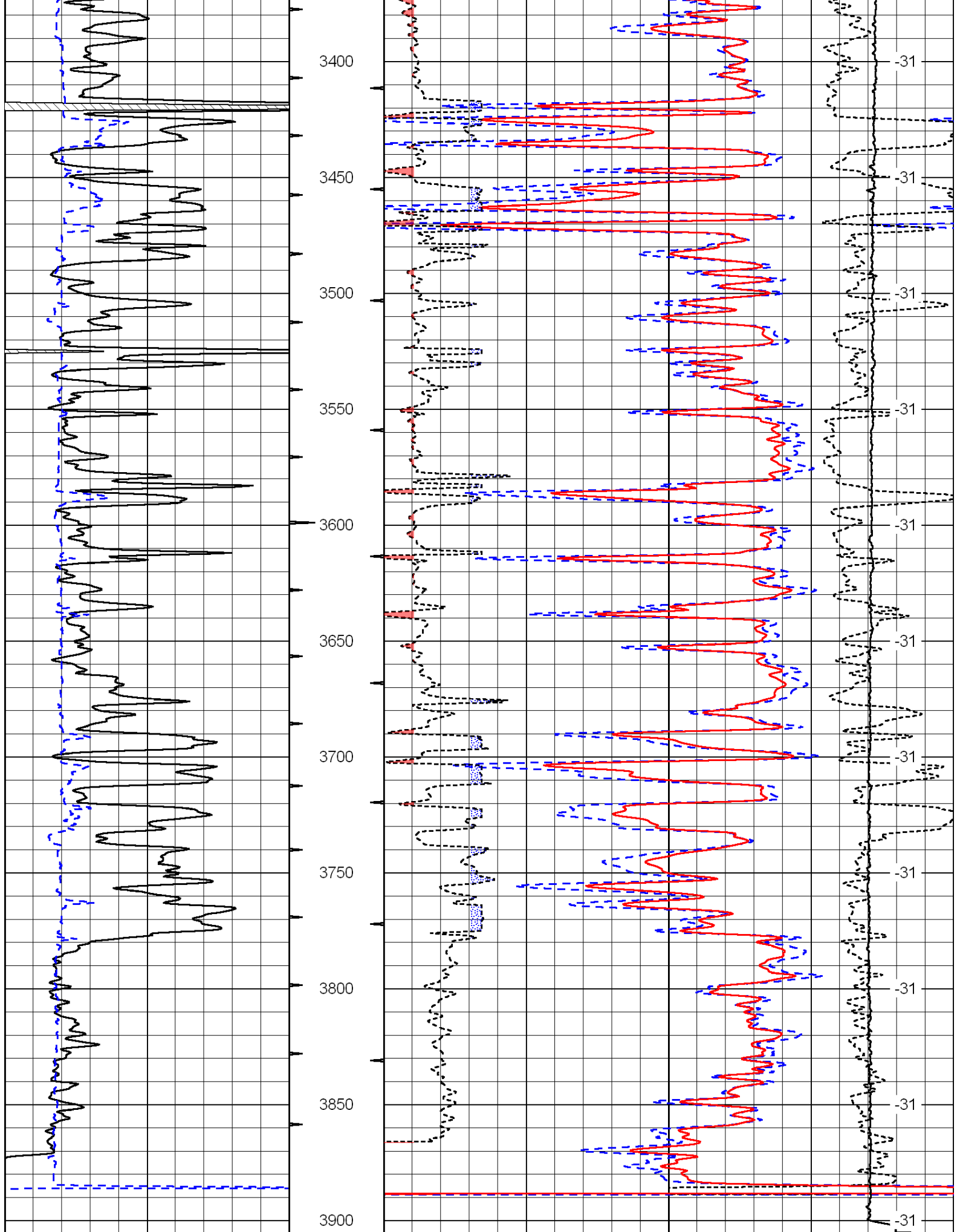
Hays KS,
 3/4 N of Log-Tech to Springhill Rd,
 2 W, Turn N, E & N Into

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 Dataset Pathname: dil\tdistk
 Presentation Format: cdl
 Dataset Creation: Sat May 21 09:58:03 2011
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
			Correction
			0.25
LSPD			





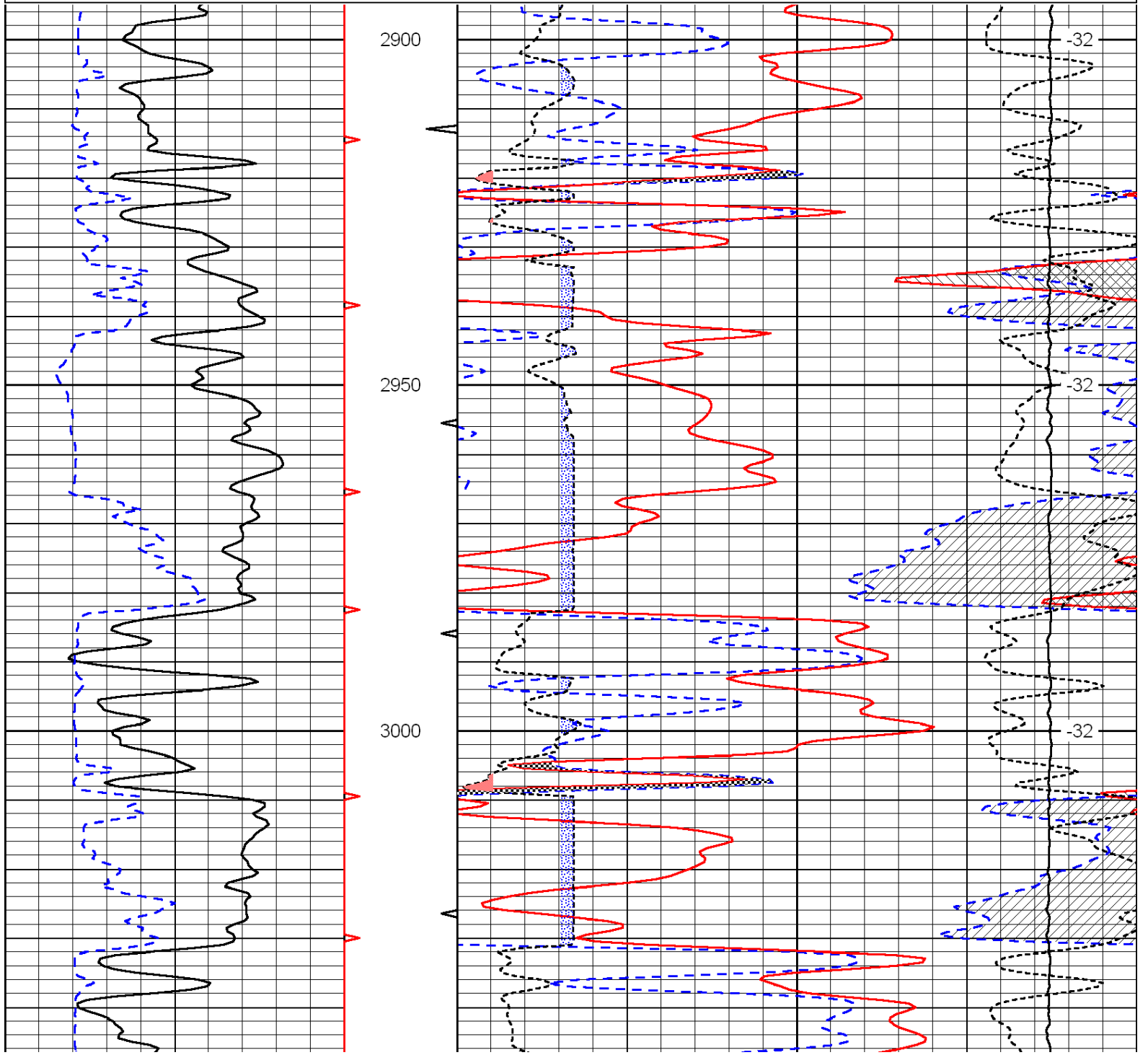
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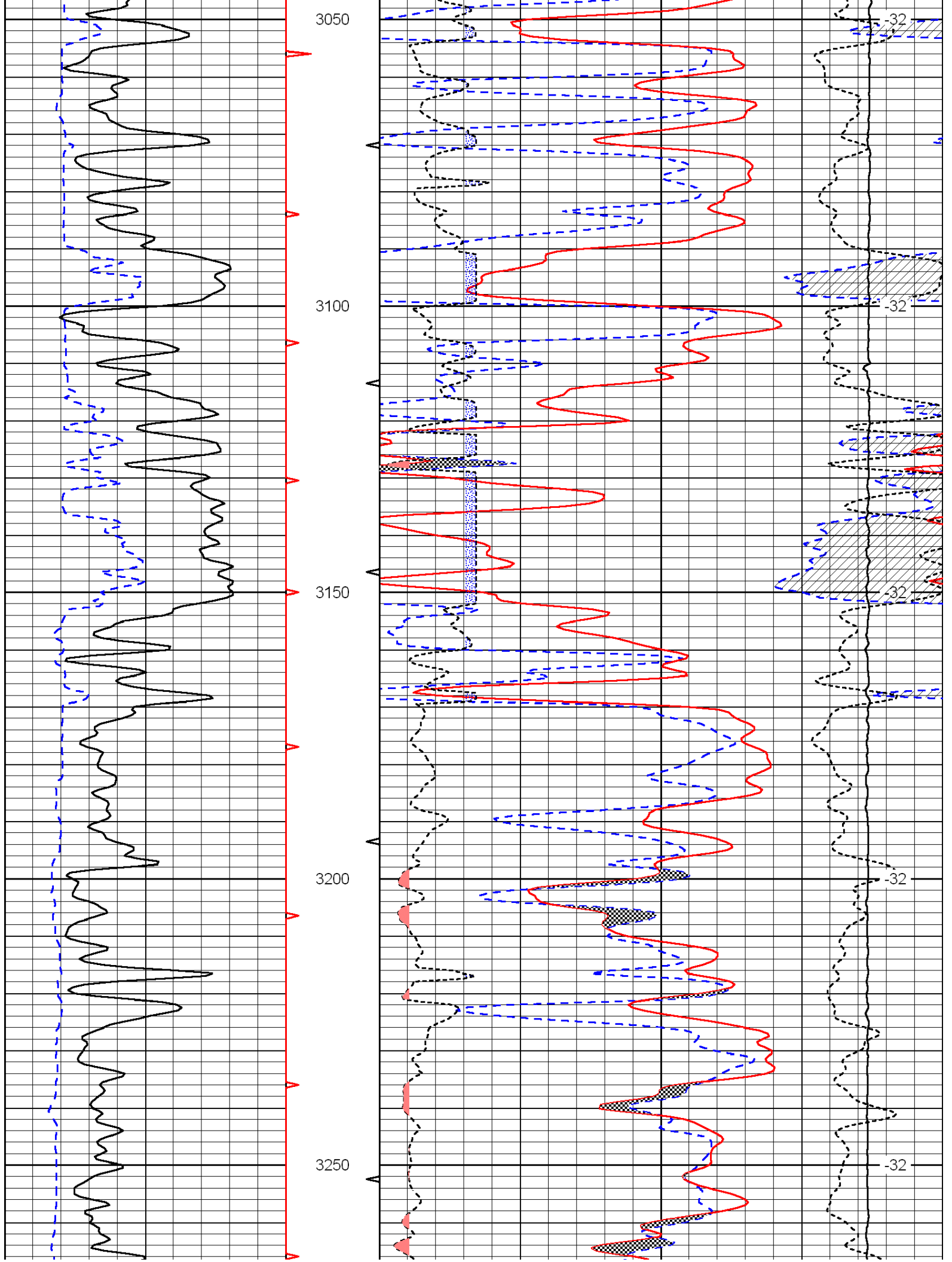
6 Coliner (CARD) 16 2 Bulk Density 2

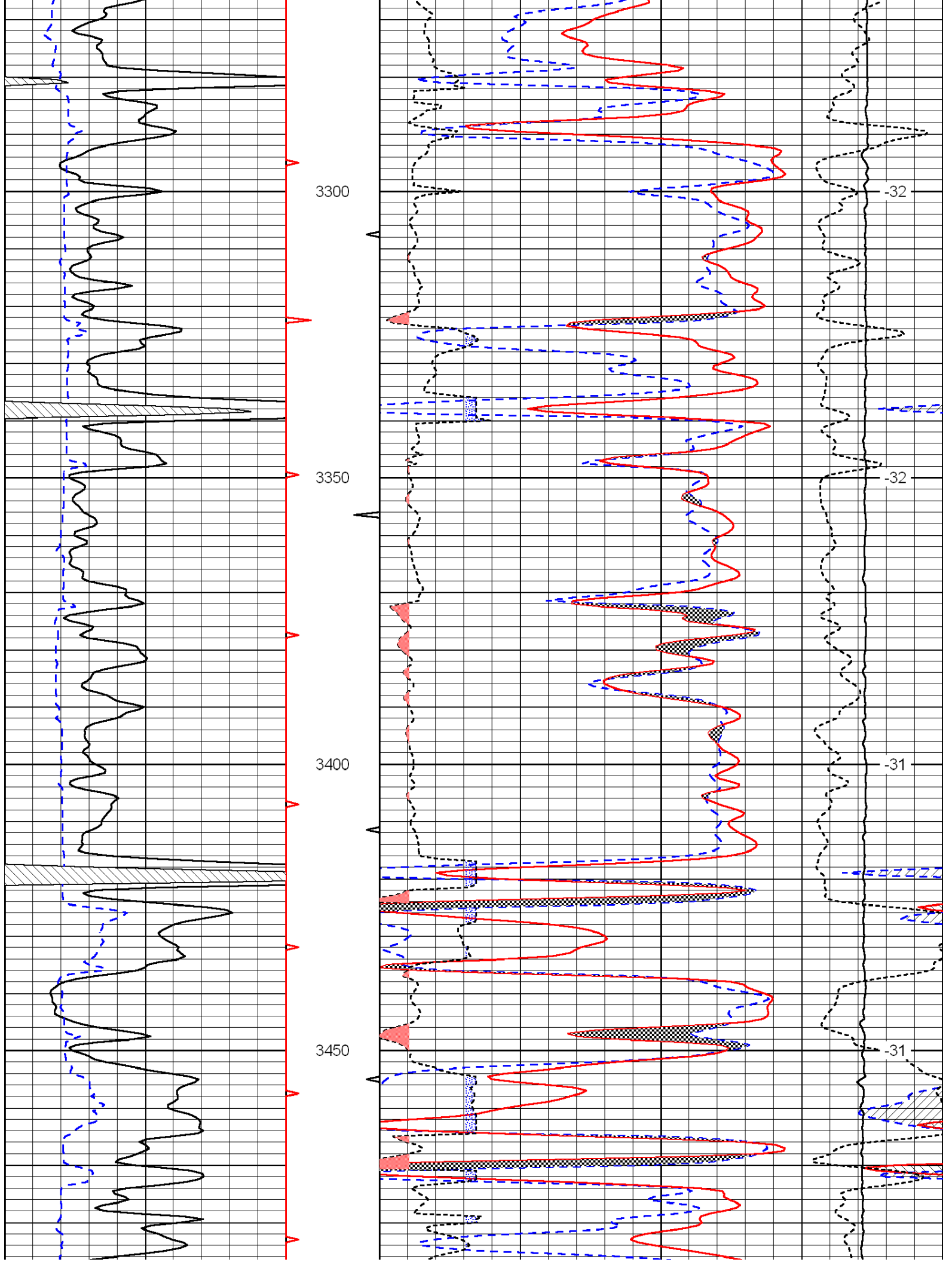
0	Caliper (GAPI)	16	z	Bulk Density	3	
			15000	Line Tension	0	
			2.625	DGA	3.425	
				-0.25	Correction	0.25
					LSPD	

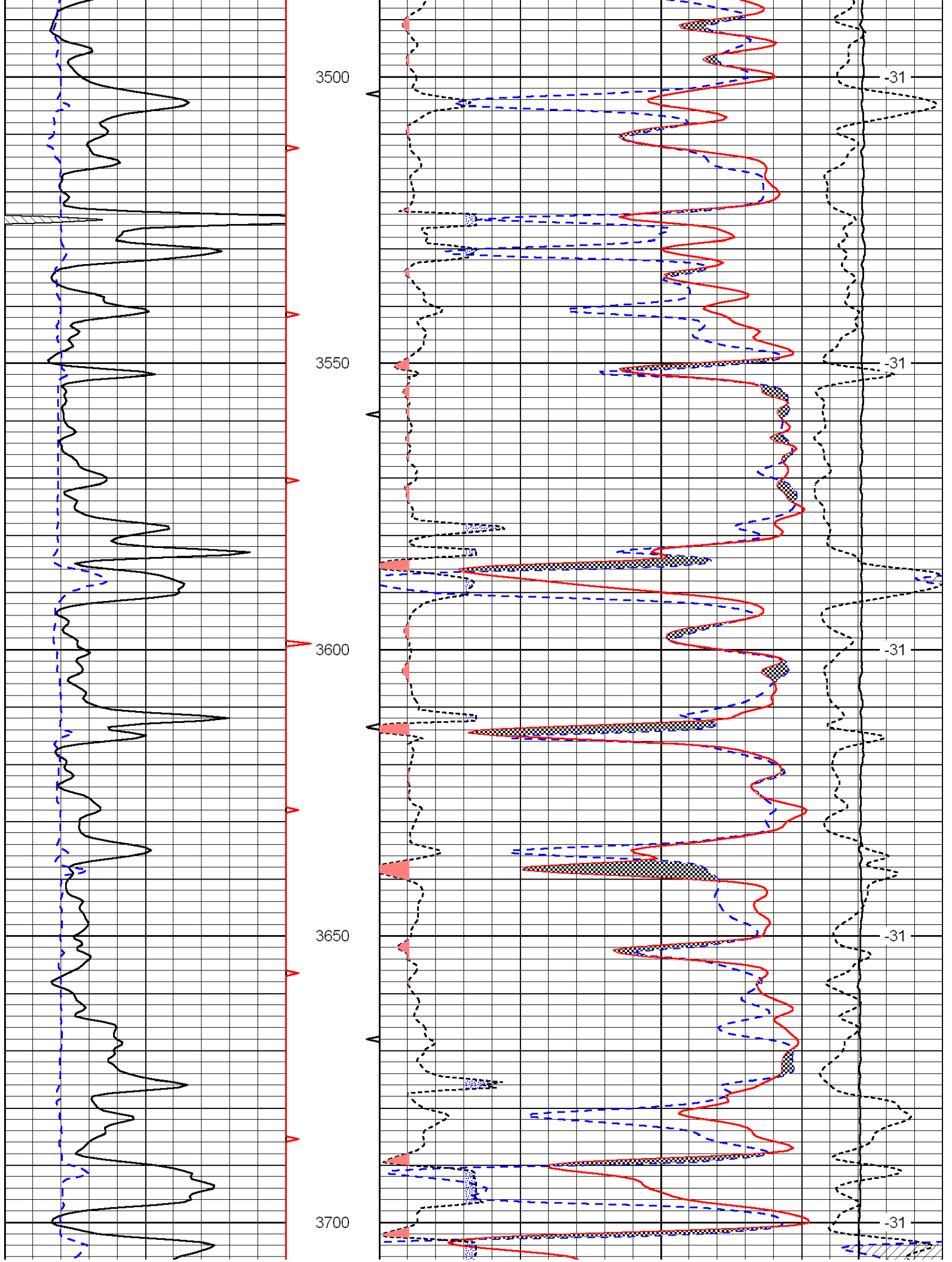
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 Charted by: Depth in Feet scaled 1:240

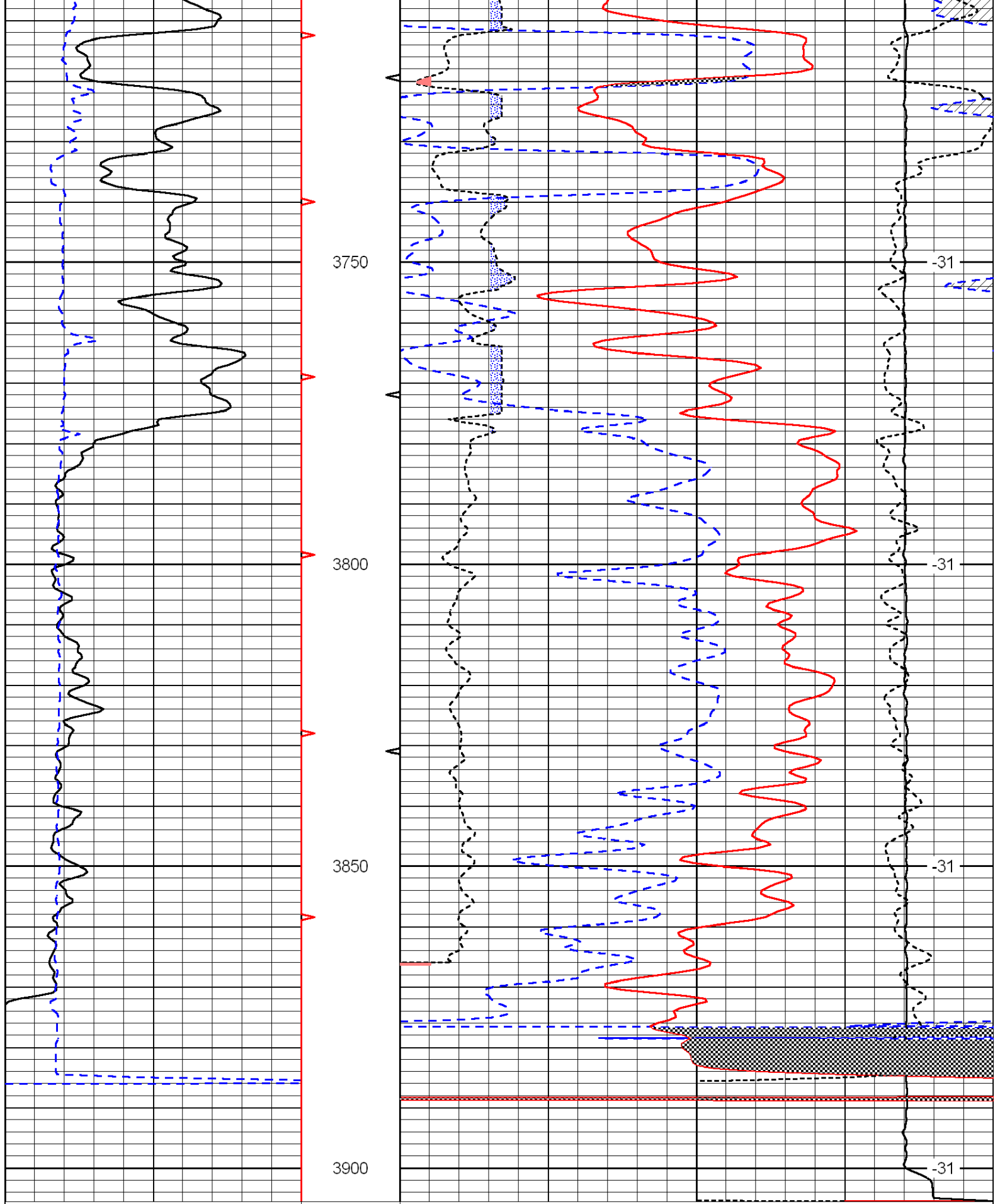
0	Gamma Ray	150	30	Compensated Neutron (Limestone)	-10	
6	Caliper (GAPI)	16	30	Compensated Density (Limestone)	-10	
			2.625	DGA	3.425	
				-0.25	Correction	0.25
			15000	Line Tension	0	
					LSPD	











0 Gamma Ray 150
 6 Caliper (GAPI) 16

30 Compensated Neutron (Limestone) -10
 30 Compensated Density (Limestone) -10

2.625 DGA 3.425 -0.25 Correction 0.25
 15000 Line Tension 0

LDP



Microresistivity Log

DIGITAL LOG (785) 625-3858

API No.	15-051-26,123-00-00		
Company	TDL, Inc.		
Well	Hiatt No.1		
Field	Wildcat		
County	Ellys	State	Kansas
Location	E2 W2 E2 SW 1320' FSL & 1855' FWL		
Sec: 7	Twp: 14S	Rge: 18W	
Permanent Datum	Ground Level	Elevation	2151
Log Measured From	Kelly Bushing	10 Ft. Above Perm. Datum	
Drilling Measured From	Kelly Bushing		
		Other Services	CNL/CDL DIL
		Elevation	K.B. 2161 D.F. 2151 G.L. 2151

Date	5/21/2011
Run Number	Two
Depth Driller	3900
Depth Logger	3899
Bottom Logged Interval	3898
Top Log Interval	2900
Casing Driller	8.625 @ 234
Casing Logger	235
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	10,000
Density / Viscosity	9.4 59
pH / Fluid Loss	10.0 8.4
Source of Sample	Flowline
Rm @ Meas. Temp	.3 @ 77
Rmf @ Meas. Temp	.23 @ 77
Rmc @ Meas. Temp	.41 @ 77
Source of Rmf / Rmc	Charts
Rm @ BHT	.2 @ 117
Operating Rig Time	3 1/2 Hours
Max Rec. Temp. F	117
Equipment Number	17
Location	Hays
Recorded By	C. Desaire
Witnessed By	Tom Denning

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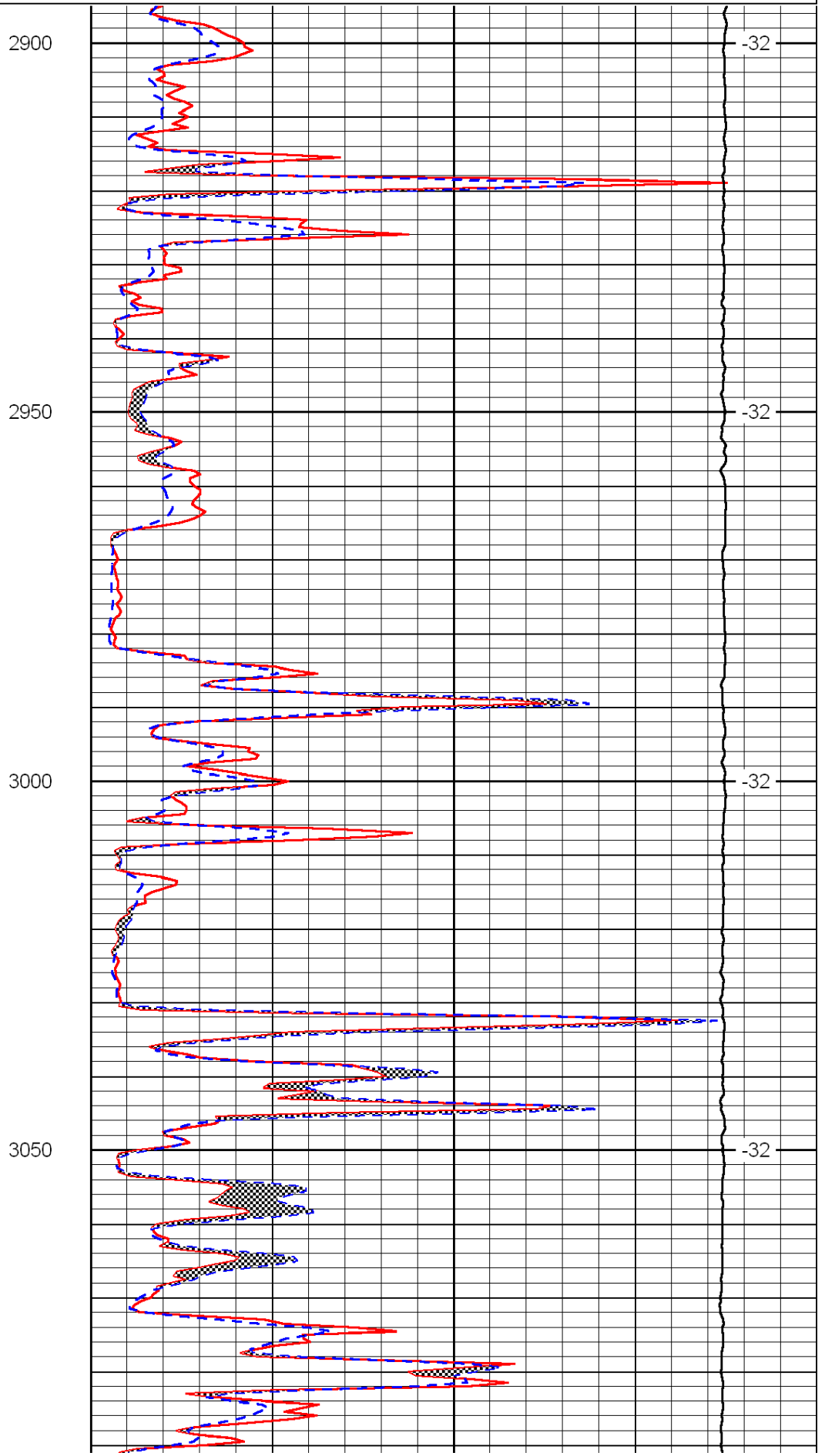
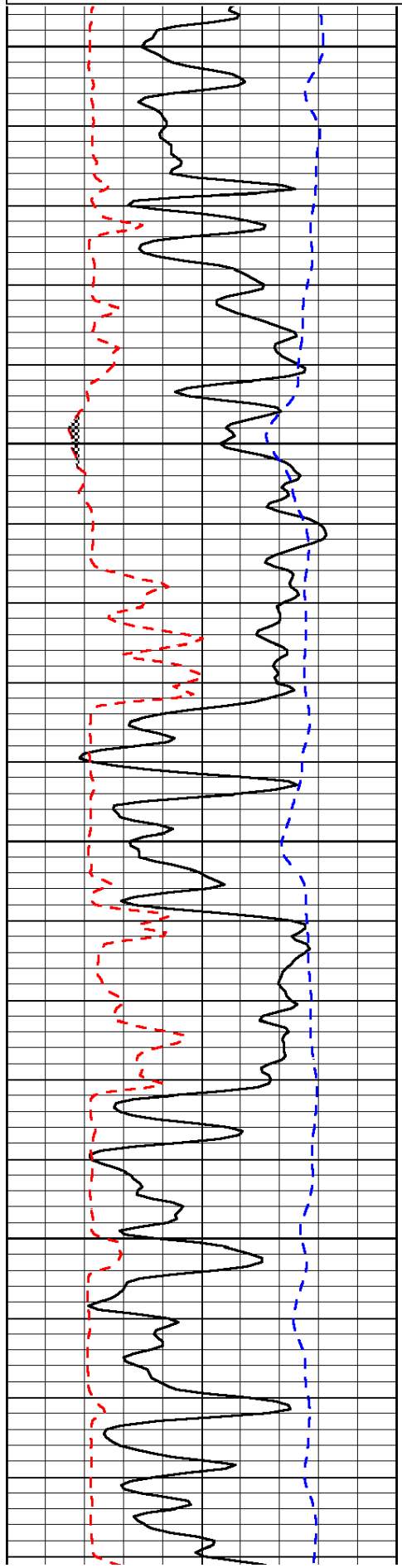
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3/4 N of Log-Tech to Springhill Rd,
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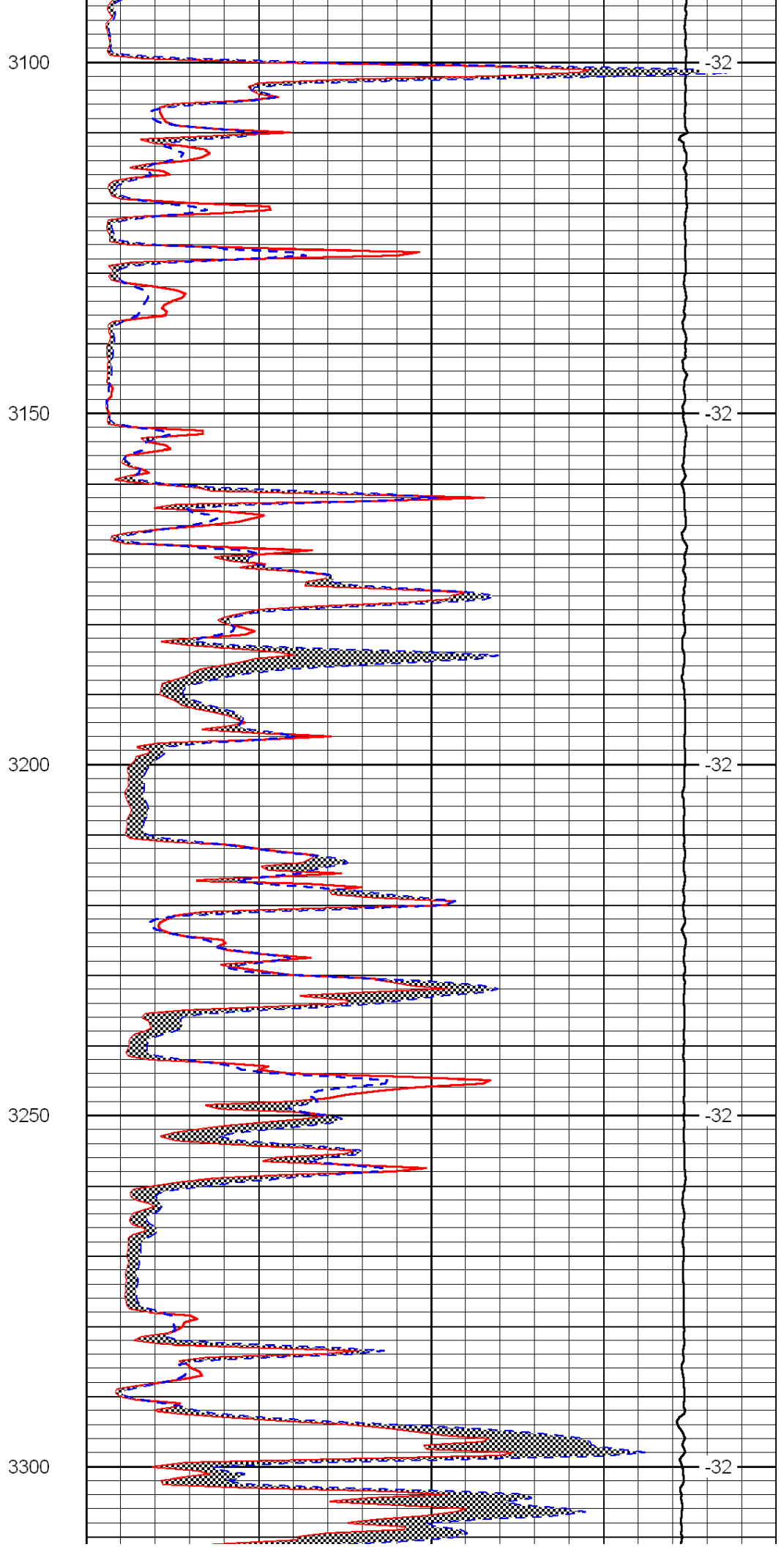
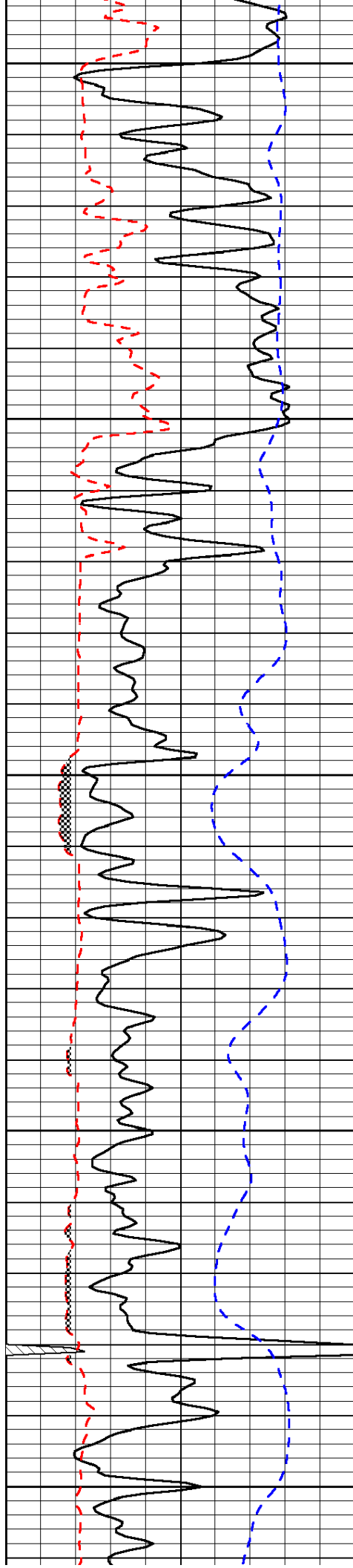
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 Presentation Format: micro
 Dataset Creation: Sat May 21 09:58:03 2011
 Charted by: Depth in Feet scaled 1:240

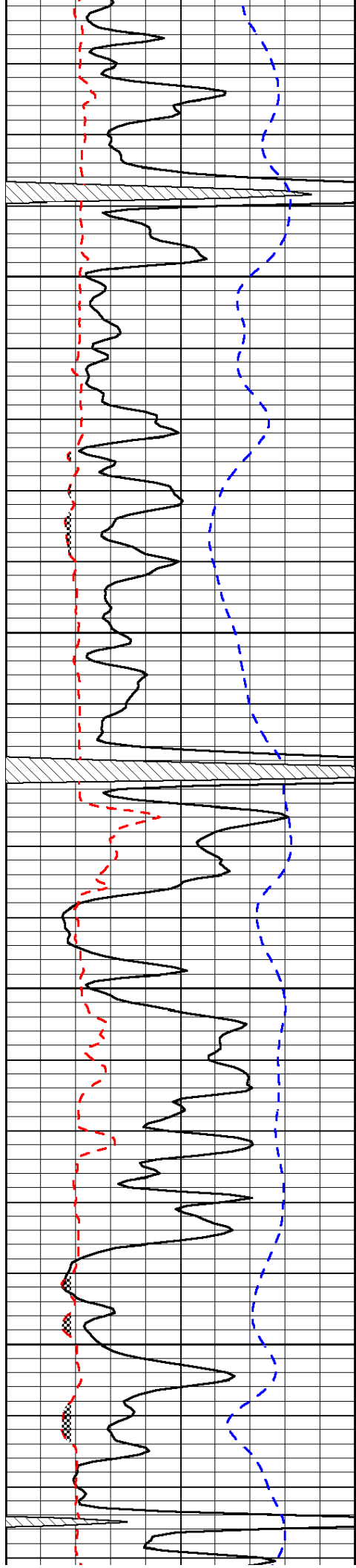
0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0

LSPD





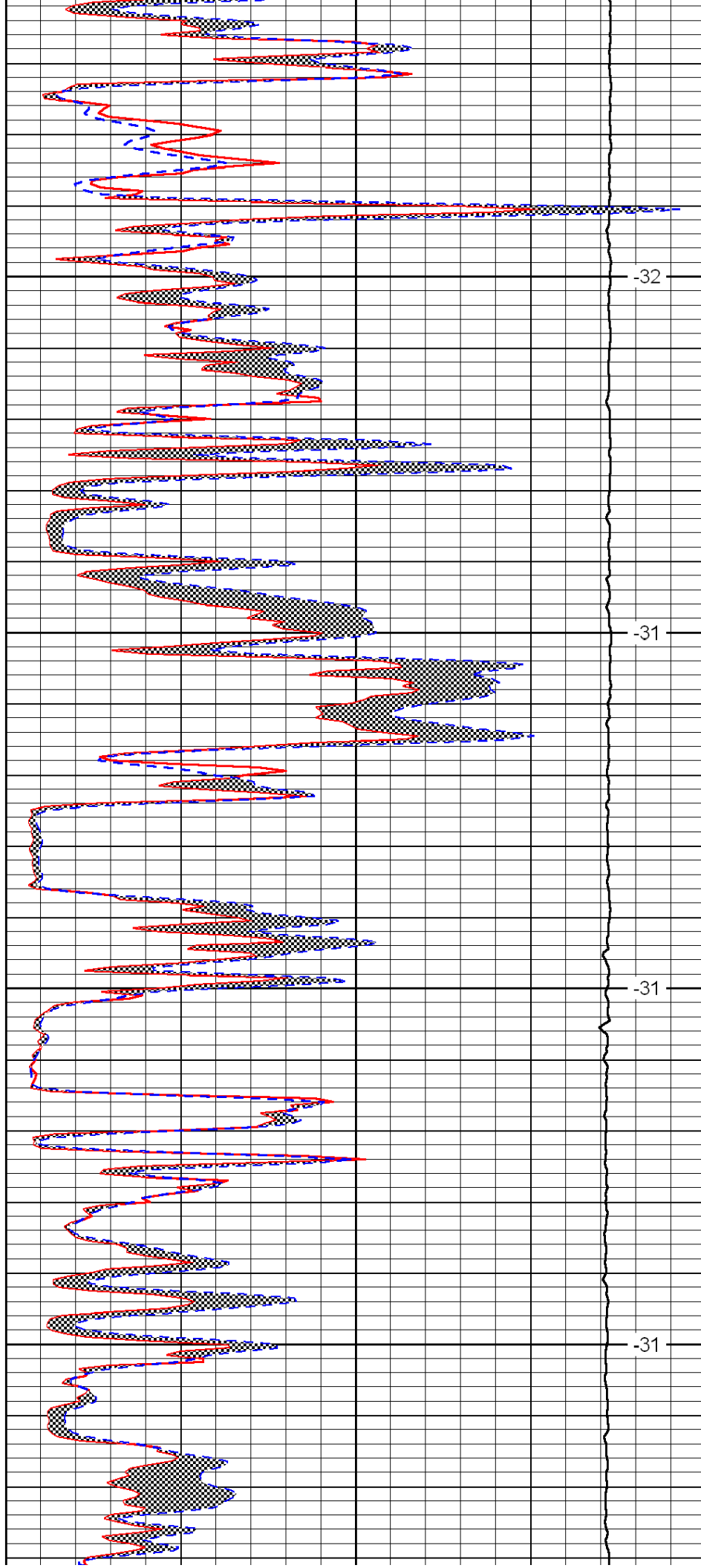


3350

3400

3450

3500

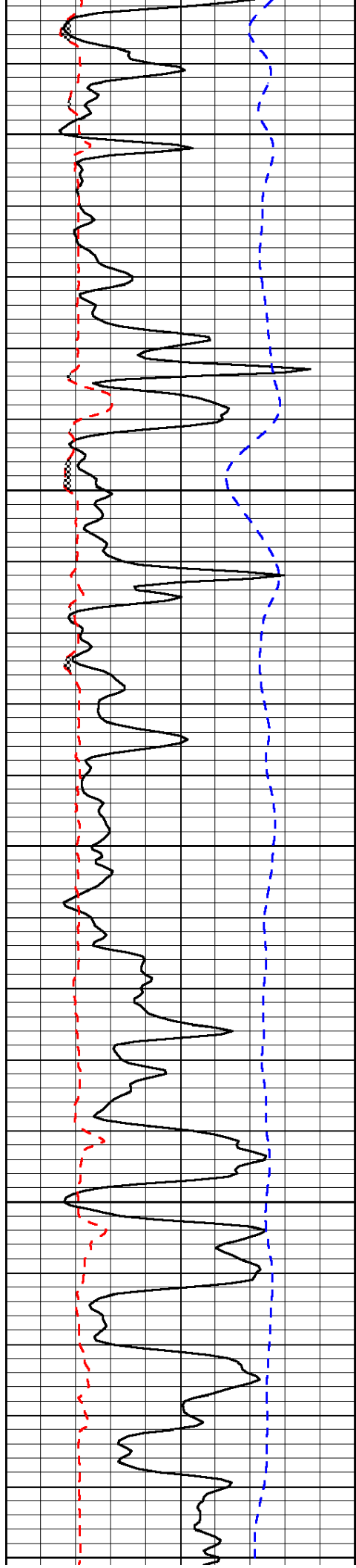


-32

-31

-31

-31



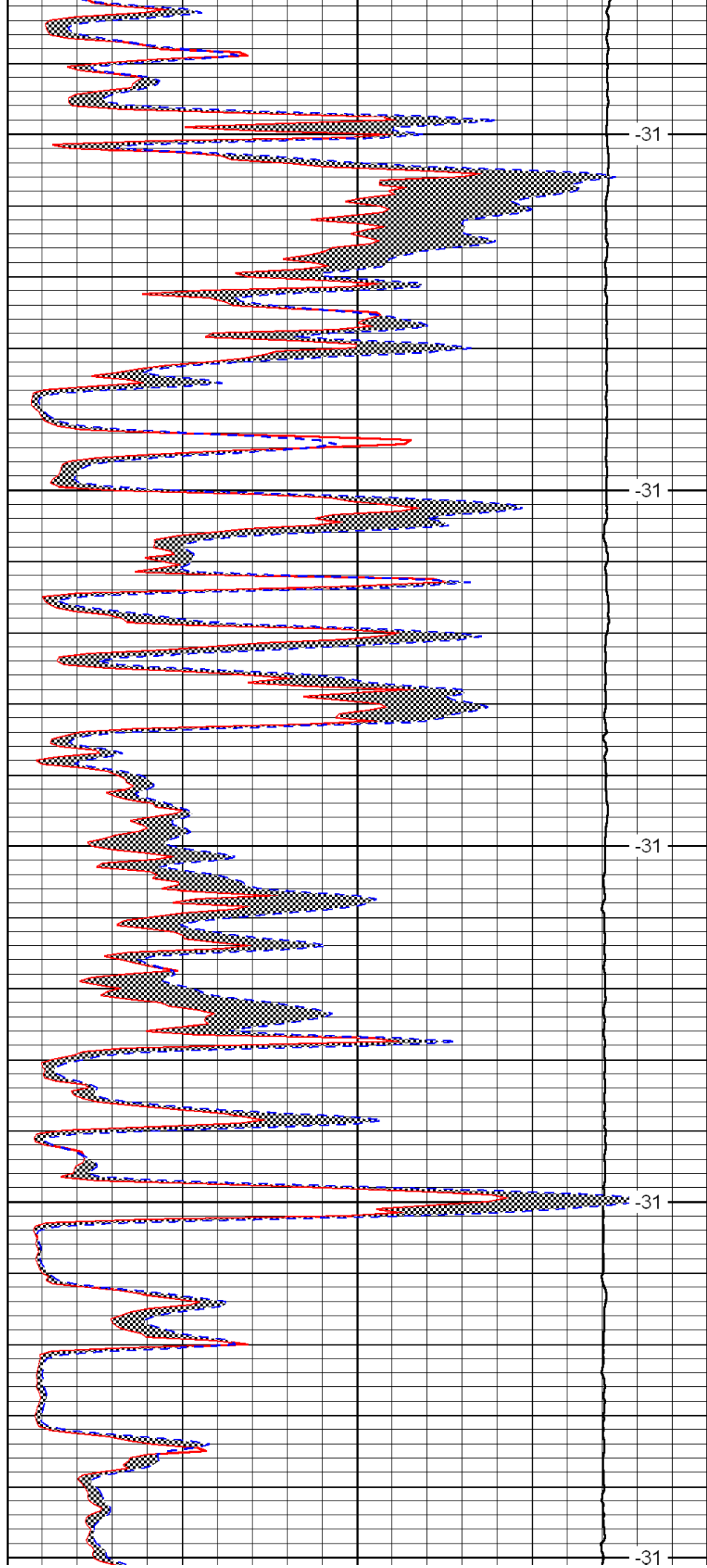
3550

3600

3650

3700

3750



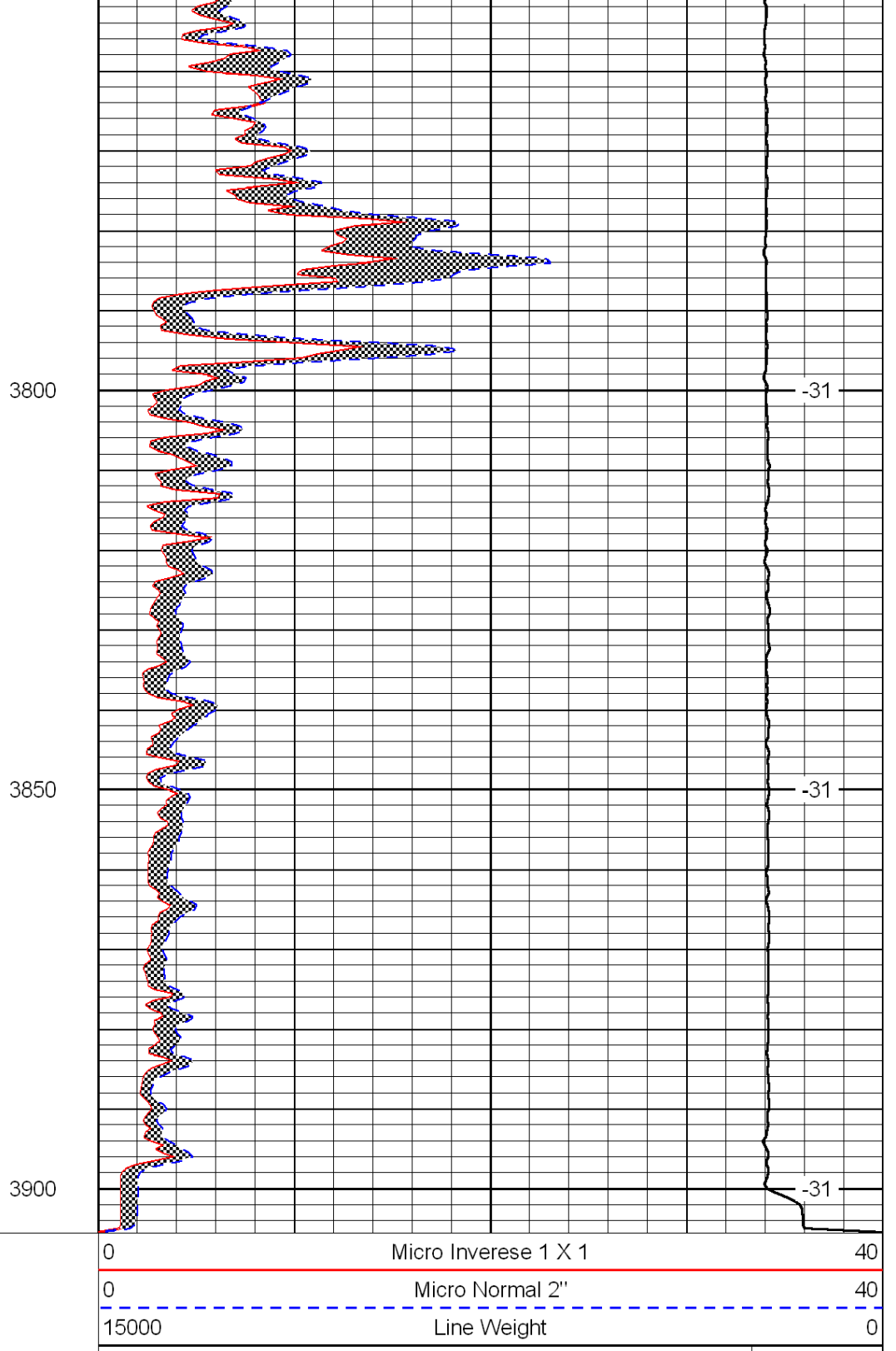
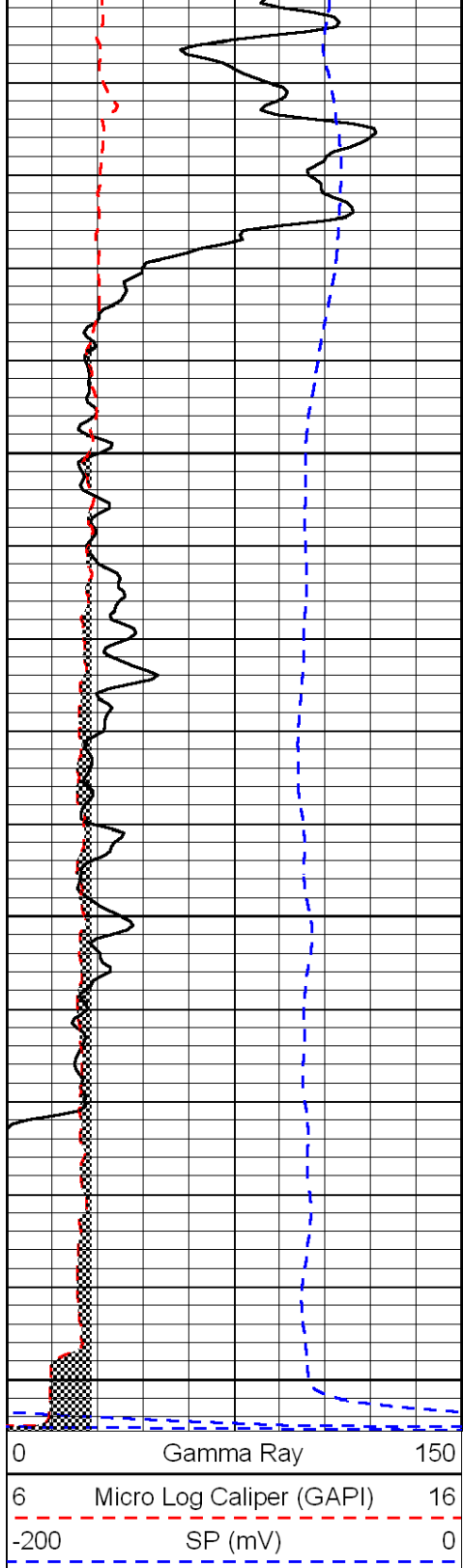
-31

-31

-31

-31

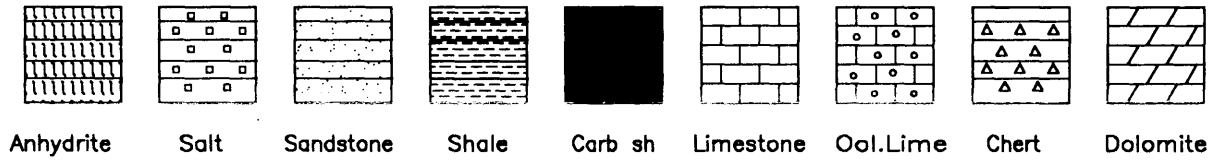
-31



LSPD

* Structural Position to: **Verna Hill #1**
N2 SW SE SE Sec 12-14-19

LEGEND



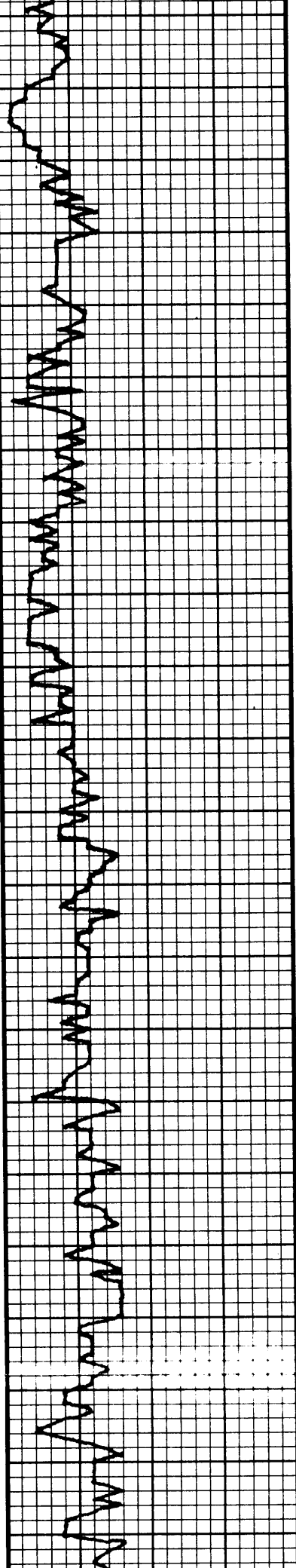
SCALE " = 100'

Drilling time in minutes	DEPTH	Sample Description	Remarks, drill stem tests, etc.						
				1	2	3	4	5	6
	1420								
	30								
	40								
	50								
	60								
	70								
	3100								
		Lm - Dk & Lt Gray Trough Bio-elastic mix Crinoids							
	20	Sh - Gray Lm Grn White Sticky slick lime Chalky wh							
		Lm - Lt Brown Gray Fossiliferous Trough and granular Crinoids mod calciferous							
		Lm - A/A							
	40	Sh - Gray Red Brown Dove Gray Sand w/ glauconite							
		Lime - Tan Lt Gray uncon. elastic mix Sh fossil							
	60	Sh - Lm Grn Slimy Sticky to granular							
	80	Lm - Tan Grn Granular Crinoid & Elera fossils Coral mod dense, no vis. φ							

Top
E-log 1420

Base
E-log 1463

Top of
E-log 1567
-1006



3200

Lm - Lt Brown Grm Co. & Fus.
Rnd Grm. Qtz clusters
Cl & Ben few chips A

20

Lm - Drk Brwn Tan Fine-Gr YLW
uncansol. das dolomitic A

40

Lm - Tan Brwn Gray Grm FXLN
Bio-clastic trashy mix
Inner YLW & some mud case
no vis. &

60

Lm - Grm Tan FOSL
Bio-clastic mix w/ mica

Lm - P/A w/ Gray weathered dol.

Lm - Tan
same chalky w/ mtrix
granular w/ FOSL PPT &
NSO NO ODR

80

Sh - Blk Gray Wht chalky matrix
Fissile Carb

Lm - Tan Grm
Dense no vis. & Cl & Ben

3300

Lm - Lt Brown Tan Grm
Some granular w/ FNT, ODR
PPT & w/ Inner YLW &

20

Sh - Gray Blk Wht
Chalky Sticky lime
FSL Sh

Lm - Lt Brown Grm
ool dense VFXLN FOSL
no vis. &

DST #1 3362-3455
Hit bridges 1005' off bottom
pulled tool

40

Sh - Blk Gray Wht Lm Grm
Abundant Chalky Matrix

Lm - Gray Tan Weathered Bio-clastic
mix FOSL dense
NSO throughout no vis &

60

Lm - Drk Brown Tan
Dolomitic ls weathered
Some ...

DST #2 3362-3455
45-45-45-45
J.F. BOB 21 min
NBB
F.F. BOB 32 min
NBB

80

Lm - Tan Grm NSO NO ODR
XLN PPT

IFD - 28-112 #
FFD - 120-189 #
SIP - 1081-1052

3400

Lm - Off wh Tan Uq. & FNT ODR
Scat. Sat Sta FO crush
lt Gray Odr

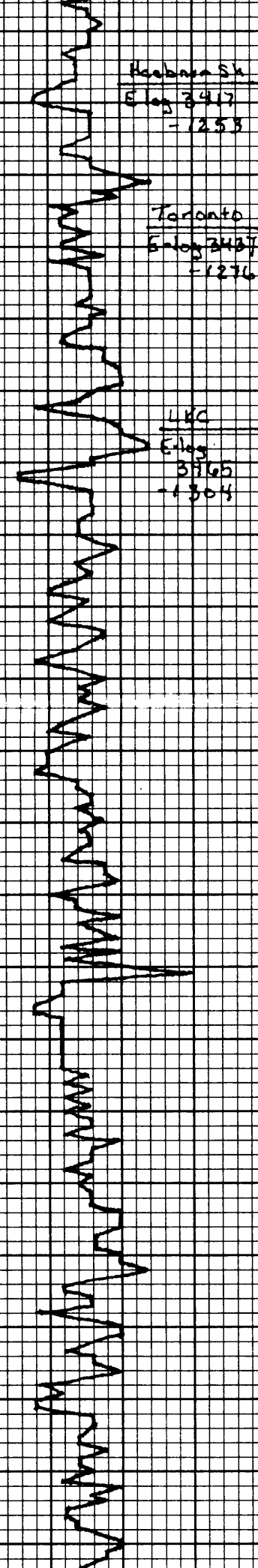
Recovery 385
107 mw 50/50
124' mw 20/80
124' mw 5/95
TBHT 110

ch- 48.000
 Mod wt 9.9
 Vis 67
 WL 6.7

Acabaca Sh
 E log 3417
 -1253

Toronto
 E log 3427
 -1276

LKC
 E log 3765
 -1304



20 Sh- Blk Abundant Carb. F.T.S.L.
 Lm- Tan Grm Speckled Grs XLN
 PPT φ
 Sh- Lm Grm Wh Sticky Mtrx

40 Lm- Grm Tan mottled few chips
 DO Sta sparsely Sat Sta
 XLN mod dense poorly dev.

CFS 60 Sh- Blk Gray Red Abundant Sticky
 lime

A Lm- Off wh Tan Dense
 no vis. φ
 Clin & Brn

80 B Lm- Tan Grm Crac- Med XLN
 micro XLN in part Lt. Gray STA
 Fat ODR
 1 chip small Vugs

3500 Sh- Blk Gray Red
 Carb. chips Sticky lime

D Lm- Tan Grm ool-normal, Tgrc st. φ
 Fat ODR FO on crush Vug φ
 Few chips PPT φ Lt. Gray Sta.

20 Lm- Tan Off wh Tan micro-med XLN
 PPT φ Instit φ ODR FO on crush
 Sected Sat. Sta.

E Sh- Blk
 F: calc

CFS F 40 Sh- Blk Gray Red
 Abundant Chalky Mtrx

Lm- Tan Grm Some mod dense to
 PPT φ Sat. Sparsely STA ODR
 Some DO w/ Lt Gray ODR

60 Lm- off wh Tan Gr Dom some w/ no vis
 Few chips Sparsely Lt Gray Sta NEQ
 Gilsenitic Featw- Instit. φ Fat ODR
 C-5 XLN

G Lm- Tan Off wh Dns micro-no vis
 Clin & Brn

80 Lm- Off wh Tan Few chips Grs XLN
 mod φ Sected Sta w/ DO Gilsenitic
 NEQ some Lt Gray Sta Vry Fat ODR

Lm- Off wh Lt Gray Tan Grs XLN
 Sected Sta Instit. φ NO ODR
 until crush Lt Gray ODR

3600 H Lm- Off wh Tan micro-no vis φ
 Dns Few chips Gilsenitic residue
 Vry Fat ODR
 few chips Tan A

20 Lm- Off wh Lt Vug φ Gilsenitic
 ODR Sat Sta Sh FOSL

DST #3 3443-3534
 45-45-45-45

I.F. BOB 22 min
 NBB
 F.F. BOB 41 min
 IFP 29-106[#]
 FFP 114-159[#]
 SIP 513-508[#]

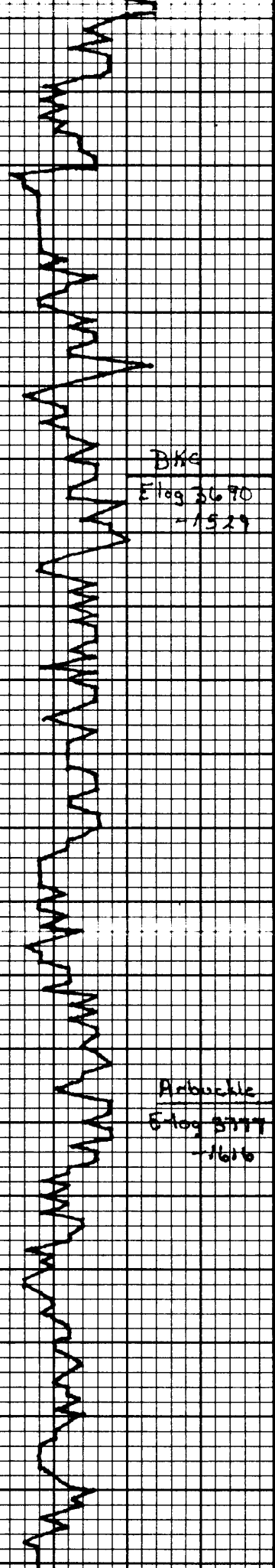
Recovery 293'
 20' V50cm 2% O 98% m
 87' m
 196' w m 15% w 85% m

BHT-
 mod wt 9.0
 Vis 63
 WL 6.4

DST #4 3568-3650
 45-45-45-45

I.F. BOB 37 min
 NBB
 F.F. Wk building 8"
 NBB
 IFP 30-82[#]
 FFP 91-129[#]
 SIP 608-579[#]

Recovery 238'
 114' m
 124 m w 40% m 60% w
 BHT III° Chlorides 62.500
 mod wt 9.1
 Vis 54
 WL 7.2



40 J
 Lim - Grm Tan Fine - Grs XLN
 Sctd Sat Stn Lt Gray ODR
 mostly PPT & SLFLOR

60 CFS
 Lim - Tan Grm Cal - amold. Vuggy w/
 Finer XLN & Sctd Sat Stn FIP ODR
 1 chp FO on crush Recrystallization
 & Solutioning

60 K
 Lim - Off wht Tan Chalky in Ppt
 mod was USO NO ODR

80 L
 Lim - Tan Grm Fine - Med XLN
 few chps partial Stn. Vry FAT ODR
 USO PPT & 1 chp granular
 w/ few spks FO on
 crush

3700
 Sh - Red Wash
 Sticky Slimy Lim

20
 Lim - Off wht Dense cal.
 Sh - Red Abundant Red Wash
 Lim - Lt Brown Trashy

40
 Lim - Maroon Mottled Tan off wht
 micro - XLN Granular
 Lim - Tan Cla Bedded cal chrt

60
 Chrt - Sh Cong. mix Var. color Δ
 w/ organic matter Dense
 few chps Ca Cemented Sand Clusters
 Congl. Mix more Δ reworked by
 Red - London Sh

80
 Dol - Sucrosic Fresh bdd Sat Stn
 Strong ODR Comcs XLN to
 Fines Vuggy & FO

3800
 Dol - Sucrosic mostly more Fresh
 bedded dense Sat Stn ODR
 FO on crush

20
 Dol - 60% Sucrosic Vuggy & FO on
 crush Sat Lt Gray Stn Frc. ODR
 40% Cla bedded Prestine Wht
 Cla & Br

40
 Dol - Wht Cla & Brn NO STN
 mod - grs gained few chps w/
 Pyrite PPT - Vuggy &

40
 Dol - Wht Tan Cla & Brn more
 dense w/ larger grains PPT &
 NO STN Cubic - rounded grains

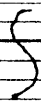
DST # 5 3718-3802
 45-45-45-45
 I.F. weak bldg 5"
 weak surface return disc @ 7 min
 FF weak bldg 4"
 NDB
 IFF 32-36#
 FFP 40-55#
 SIP 904-820#
 Recovery 95'
 45' FO
 50' Hocm 30% 70% m
 Grav. 29 BHT 112°
 mud wt 9.4
 V's 59
 WL 8.4
 LCM 3#

DD - P/A few chips Lm Gen Lim
Sh stragen

60 • Dol Off Wht Crs Yld Suc. Veg. #
Lt Set Sta Fr ODR Fr on crush

Dol - Suc Fr Yld Duggy # PPT
mod dense in pct. fewer Set
Sta Vry Ent ODR

80 70 = H/A few chips weathered
rounded mature grains
Sh unconsolidate



3900 TD @ 3:03 AM May 21, 2011

LTD 3899

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 4909

Date	5-13-11	Sec.	7	Twp.	14	Range	18	County	Ellis	State	Ks	On Location		Finish	9:00 AM	
Lease	Hiatt	Well No.	#1	Location		Hays, Ks - 1830 W Hwy 30, 1S										
Contractor	Southwind #1							Owner	310 N+E is well							
Type Job	Surface							To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Hole Size	12 1/4"		T.D.	236'												
Csg.	8 3/8" 20#		Depth	234'												
Tbg. Size			Depth													
Tool			Depth													
Cement Left in Csg.	15'		Shoe Joint	15'												
Meas Line			Displace	14 BIS												
Cement Amount Ordered													150 common 30% gel 2% gel			

EQUIPMENT

Pumptrk	1	No.	Cementer Helper	Cisco	Common	150
Bulktrk	8	No.	Driver	Corey	Poz. Mix	
Bulktrk	p.u.	No.	Driver	Rick	Gel.	3
JOB SERVICES & REMARKS					Calcium	5

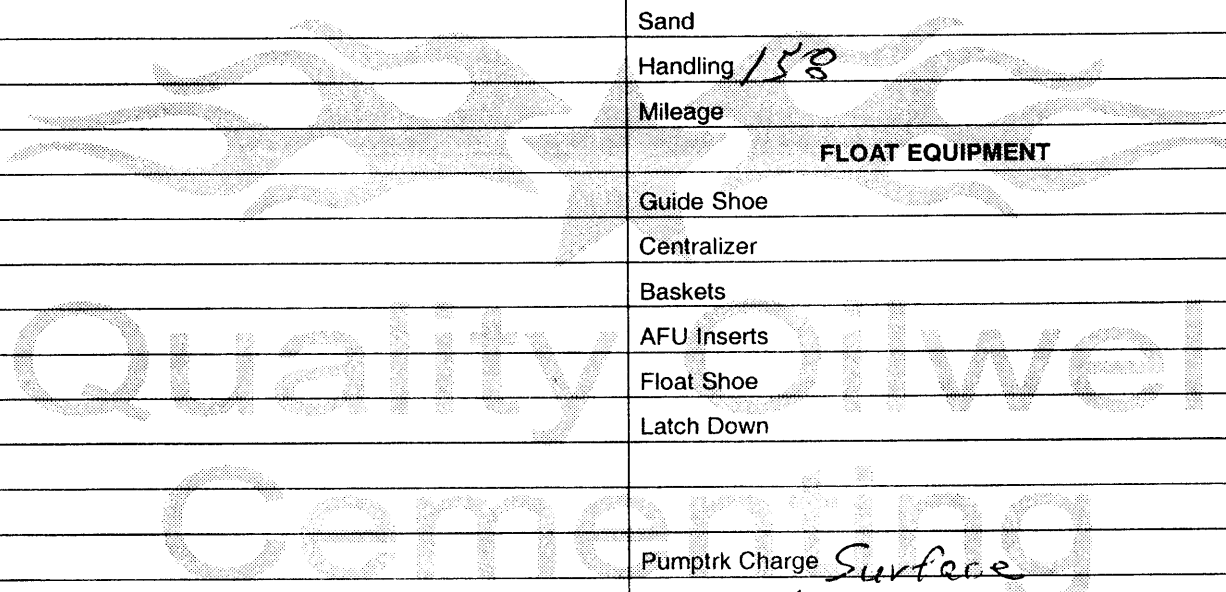
Remarks:	Cement did Circulate					
Rat Hole	Hulls					
Mouse Hole	Salt					
Centralizers	Flowseal					
Baskets	Kol-Seal					
D/V or Port Collar	Mud CLR 48					
	CFL-117 or CD110 CAF 38					
	Sand					
	Handling 158					
	Mileage					

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

	Pumptrk Charge	Surface
	Mileage	4

X Signature	Frank Rouse	Tax	
		Discount	
		Total Charge	



JOB LOG

SWIFT Services, Inc.

DATE 5-22-11 PAGE NO. 1

CUSTOMER TDI WELL NO. #1 LEASE Hiatt JOB TYPE Cement Transporting TICKET NO. 19751

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0145							TD 3900'
	0320							DN location W/E.E. Rig LDD.C. Start 5 1/2" 14 #/ft casing to 3901'
								Insert Float Shoe w/Auto-Pull L.D. Baffle - S.S. - 4 3/4" @ 3957.5' (94 Displ)
								Cent Collars 1-3-5-7-9-12-58-73 Cmt Baskets Riv end #2-13-95-74 D.V. #95 JT between 58+59 @ 1442'
								Drop fill up ball 60 lbs and Rig for run casing
	0530							Start circ/rotate - 1st stage
	0600							Fin circ - Take on 1 Tank of Mud
		6	12				530	Pump 500 GAL Mud Flush
		5 1/2	32				500	Pump 201731 KCL Flush
		5					450	Start (150 SKS IFA-2 cmt) @ 15.5 #/gal
	0630	5	36				300	Fin cmt - Wash out Pump & Lines
	0633	9					350	Drop D.V. L.D. Plug - Start Displ (94)
		8	40				300	slow rate - @ 65 Hrd - Start 20 mud
		7	70				400	Caught pass - Slow rate @ 85
		6	80				500	Slow rate @ 85 BBL - Start KCL Flush
	0645		94				200/1500	Plug down - Hold - Release & Hold Drop D.V. opening Device -
		9/5						Plug RH/PH 30/15 mud cmt
		5 1/2	11				1100/400	Open D.V. - KCL Flush
							400	Fin Flush 2nd Stage
		6					200	Start (200 SKS SUD) @ 11.2 #/gal
		6	86				350	Fin cmt - Release D.V. Closing Plug
		6					200	Start Displ (35 BBL)
		6	25				300	Cmt circ - (20 SKS to PIT)
	0745		35				400/1600	Plug Down - D.V. Closed - Release & Hold
	0800							Job Complete
								Thanks Dan, Doug & David



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

Haitt #1
7/14S/18W-ELLIS
Job Ticket: 42886 **DST#: 1**
Test Start: 2011.05.18 @ 03:35:20

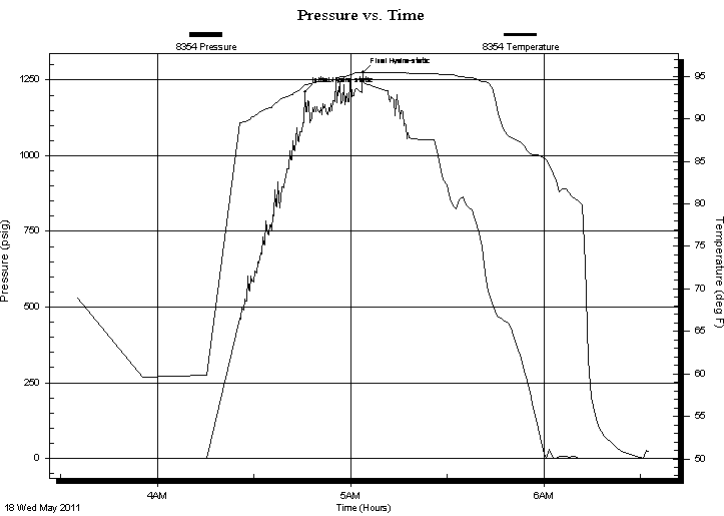
GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole
Time Tool Opened: Tester: Dustin Rash
Time Test Ended: 06:32:50 Unit No: 38
Interval: 3367.00 ft (KB) To 3455.00 ft (KB) (TVD) Reference Elevations: 2161.00 ft (KB)
Total Depth: 3455.00 ft (KB) (TVD) 2150.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 11.00 ft

Serial #: 8354

Press @ Run Depth: psig @ ft (KB) Capacity: 8000.00 psig
Start Date: 2011.05.18 End Date: 2011.05.18 Last Calib.: 2011.05.18
Start Time: 03:35:20 End Time: 06:32:50 Time On Btm: 2011.05.18 @ 04:45:50
Time Off Btm: 2011.05.18 @ 05:03:50

TEST COMMENT: IF- Could not get tool to bottom. Pulled tool.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1210.81	94.02	Initial Hydro-static
18	1275.10	95.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

Haitt #1
7/14S/18W-Ellis
Job Ticket: 42886 **DST#: 1**
Test Start: 2011.05.18 @ 03:35:20

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: 43.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1900.00 ppm			
Filter Cake: inches			

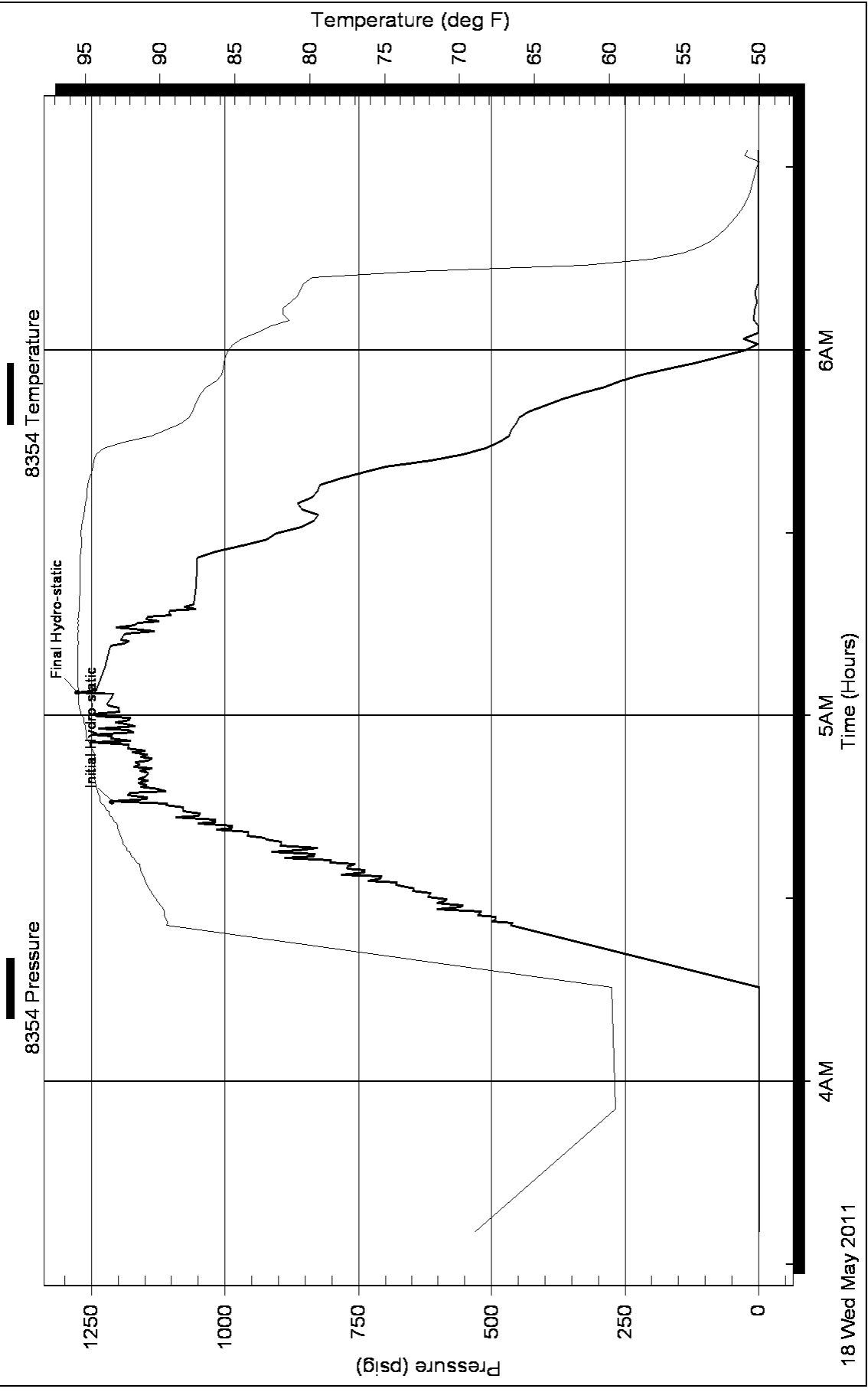
Recovery Information

Recovery Table

Length ft	Description	Volume bbl

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

Pressure vs. Time





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

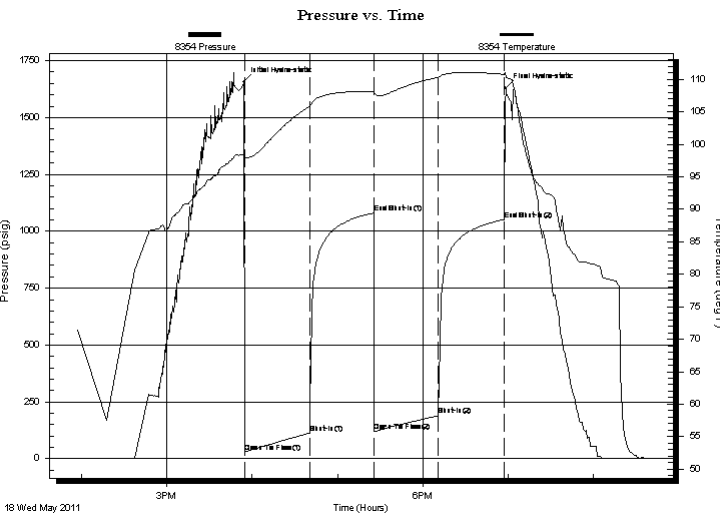
Haitt #1
7/14S/18W-Ellis
Job Ticket: 42887 **DST#: 2**
Test Start: 2011.05.18 @ 13:47:21

GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:54:51
Time Test Ended: 20:36:21
Interval: **3362.00 ft (KB) To 3455.00 ft (KB) (TVD)**
Total Depth: 3455.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38
Reference Elevations: 2161.00 ft (KB)
2150.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8354 Inside
Press @ Run Depth: 189.40 psig @ 3432.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.05.18 End Date: 2011.05.18 Last Calib.: 2011.05.18
Start Time: 13:57:21 End Time: 20:36:21 Time On Btm: 2011.05.18 @ 15:54:21
Time Off Btm: 2011.05.18 @ 18:58:21

TEST COMMENT: IF-Fair building blow . BOB in 20 minutes 40 seconds.
ISI-Few surface bubbles @ 2 minutes. Died @ 4 minutes.
FF-Fair building blow . BOB in 31 minutes 50 seconds.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.63	98.35	Initial Hydro-static
1	27.78	98.01	Open To Flow (1)
46	112.38	105.80	Shut-In(1)
91	1080.53	108.11	End Shut-In(1)
92	120.33	107.74	Open To Flow (2)
137	189.40	110.31	Shut-In(2)
183	1051.65	110.76	End Shut-In(2)
184	1630.34	110.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	95%Water/5%Mud	1.74
124.00	80%Water/20%Mud	1.74
107.00	50%Water/50%Mud	1.50

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

Haitt #1
7/14S/18W-Ellis
Job Ticket: 42887 **DST#: 2**
Test Start: 2011.05.18 @ 13:47:21

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: 48000 ppm	
Viscosity: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: 0.20 ohm.m	Gas Cushion Pressure: psig		
Salinity: 9800.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	95%Water/5%Mud	1.739
124.00	80%Water/20%Mud	1.739
107.00	50%Water/50%Mud	1.501

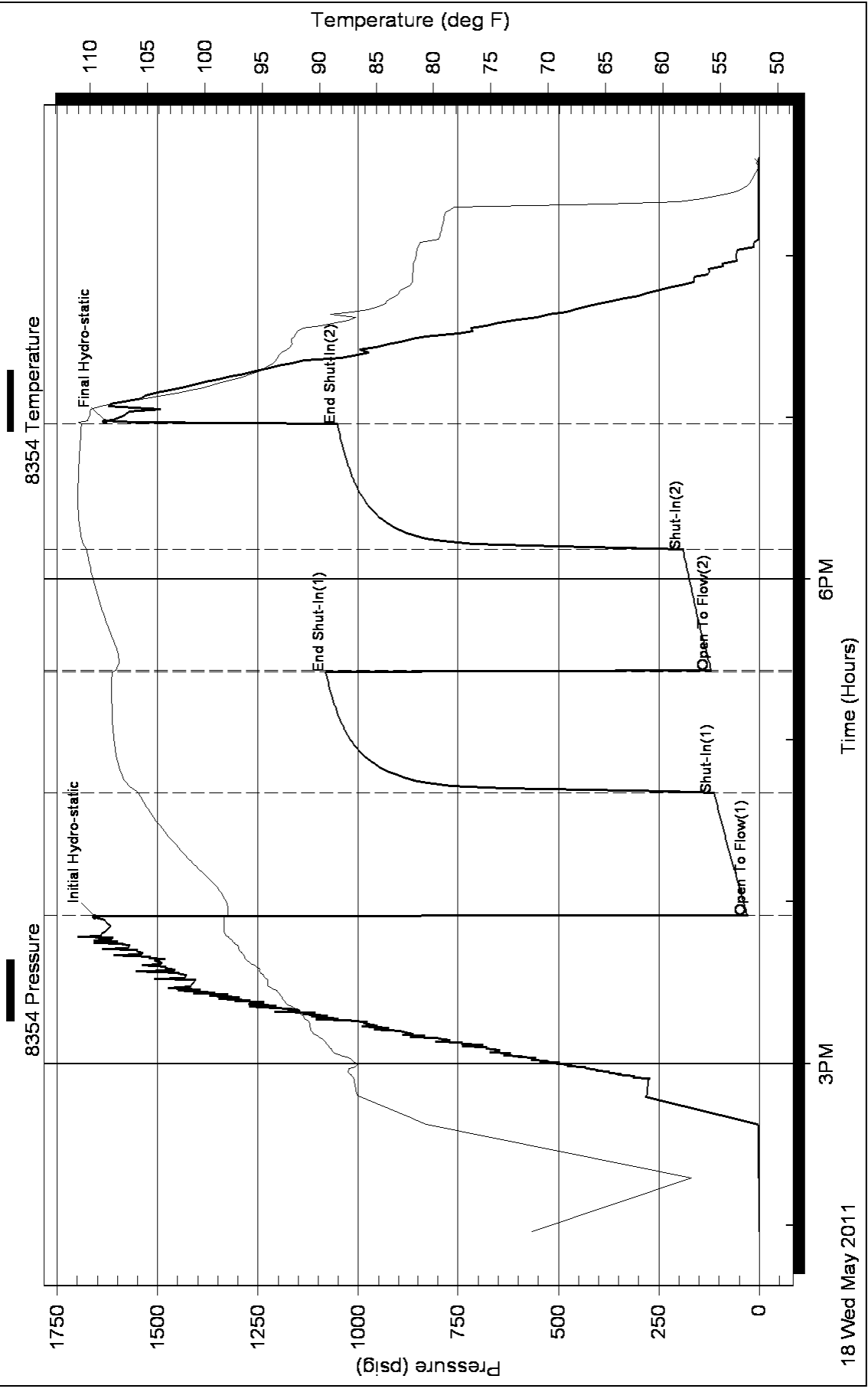
Total Length: 355.00 ft Total Volume: 4.979 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

Haitt #1
7/14S/18W-Ellis
Job Ticket: 42888 **DST#: 3**
Test Start: 2011.05.19 @ 08:43:10

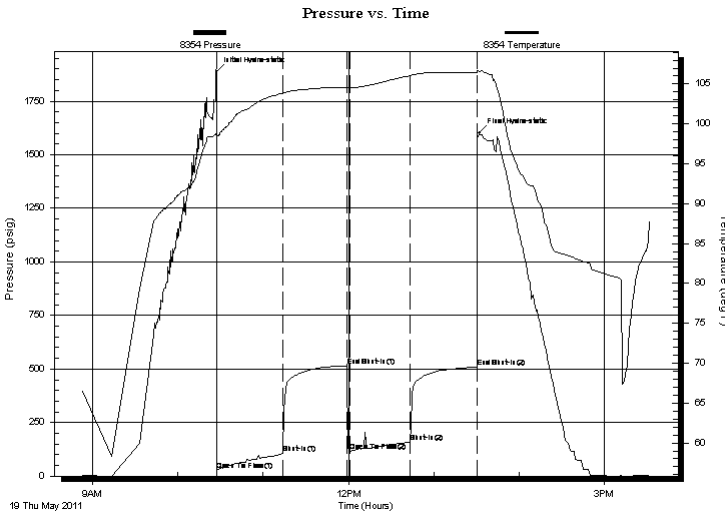
GENERAL INFORMATION:

Formation: **LKC "C,D,E,&F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:27:30
 Time Test Ended: 15:31:40
 Interval: **3443.00 ft (KB) To 3534.00 ft (KB) (TVD)**
 Total Depth: 3534.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole
 Tester: Dustin Rash
 Unit No: 38
 Reference Elevations: 2161.00 ft (KB)
 2150.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8354 Inside
 Press @ Run Depth: 157.98 psig @ 3513.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.05.19 End Date: 2011.05.19 Last Calib.: 2011.05.19
 Start Time: 08:53:10 End Time: 15:31:40 Time On Btm: 2011.05.19 @ 10:27:20
 Time Off Btm: 2011.05.19 @ 13:32:10

TEST COMMENT: IF-Fair building blow . BOB in 22 minutes 30 seconds.
 IS-No Return.
 FF-Weak building blow . BOB in 41 minutes.
 FS-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1888.32	98.77	Initial Hydro-static
1	29.19	97.84	Open To Flow (1)
47	105.75	103.83	Shut-In(1)
92	513.11	104.60	End Shut-In(1)
94	114.27	104.52	Open To Flow (2)
136	157.98	106.04	Shut-In(2)
183	508.21	106.41	End Shut-In(2)
185	1601.25	106.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	85%Mud/15%Water	2.61
87.00	100%Mud	1.22
20.00	95%Mud/2%Oil	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.
1310 Bison Rd.
Hays, Ks 67601
ATTN: Jeff Lawler

Haitt #1
7/14S/18W-Ellis
Job Ticket: 42888 **DST#: 3**
Test Start: 2011.05.19 @ 08:43:10

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: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9800.00 ppm			
Filter Cake: inches			

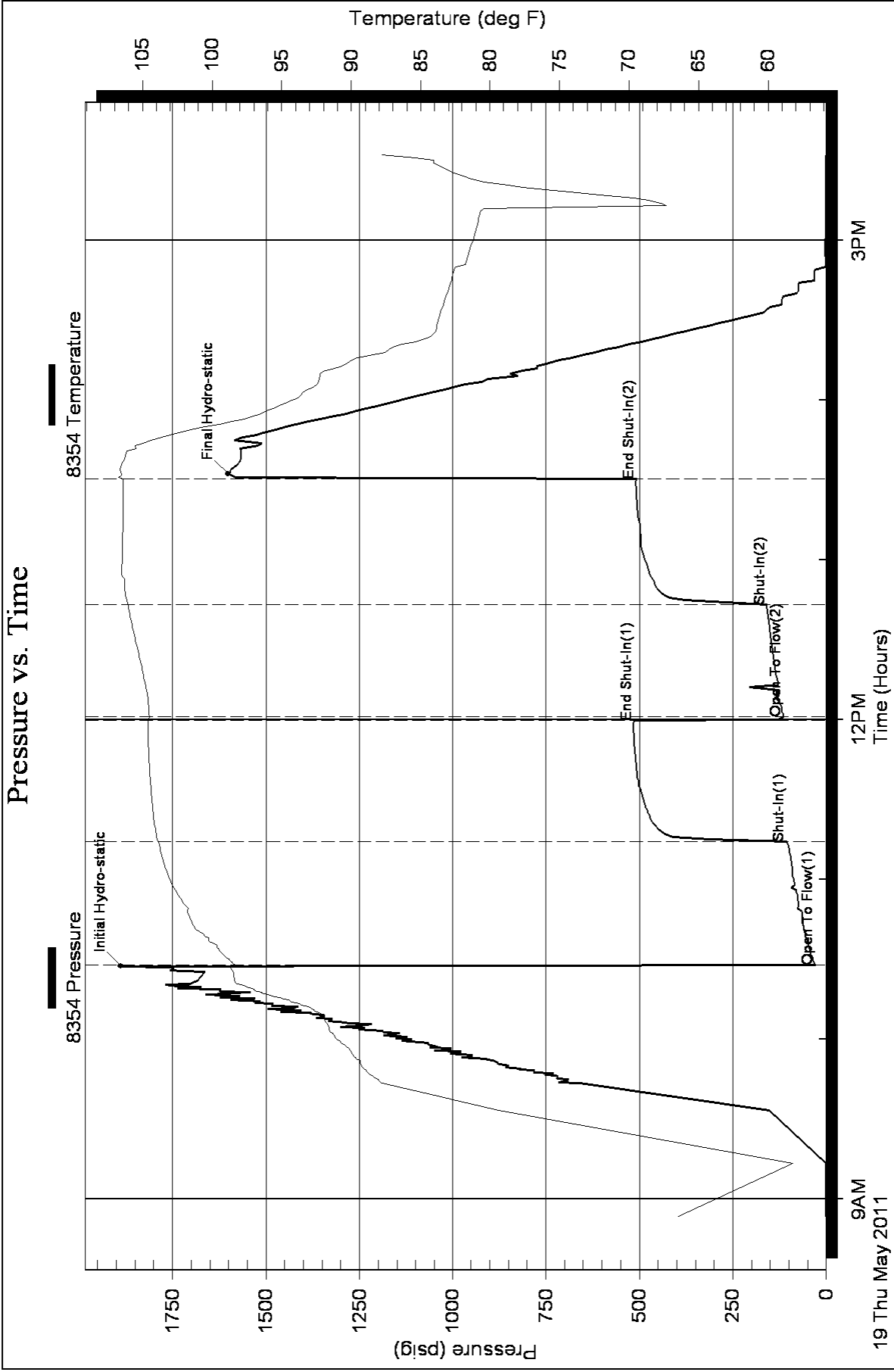
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	85%Mud/15%Water	2.609
87.00	100%Mud	1.220
20.00	95%Mud/2%Oil	0.281

Total Length: 293.00 ft Total Volume: 4.110 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Jeff Lawler

Hiatt #1
7-14s-18w Ellis,KS
Job Ticket: 42889 **DST#: 4**
Test Start: 2011.05.20 @ 04:26:50

GENERAL INFORMATION:

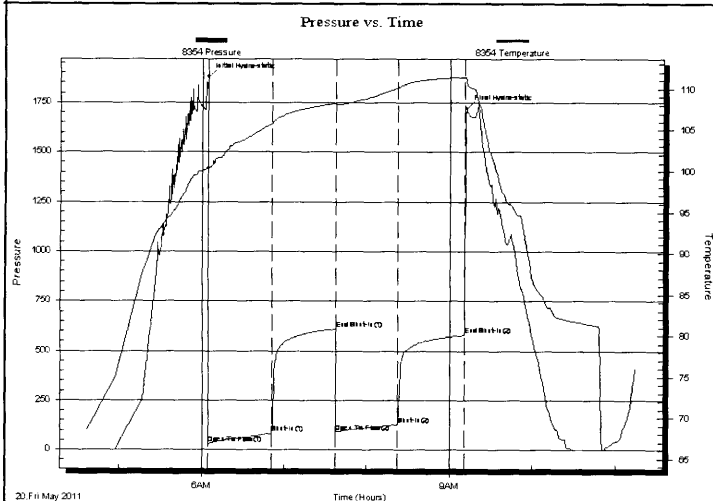
Formation: **LKC "H-J"**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
 Time Tool Opened: **06:04:30** Tester: **Dustin Rash**
 Time Test Ended: **11:14:20** Unit No: **38**
 Interval: **3568.00 ft (KB) To 3650.00 ft (KB) (TVD)** Reference Elevations: **2161.00 ft (KB)**
 Total Depth: **3650.00 ft (KB) (TVD)** **2150.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Poor** KB to GR/CF: **11.00 ft**

Serial #: 8354

Inside

Press@RunDepth: **128.55 psig @ 3637.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2011.05.20** End Date: **2011.05.20** Last Calib.: **2011.05.20**
 Start Time: **04:36:50** End Time: **11:14:20** Time On Btm: **2011.05.20 @ 06:04:10**
 Time Off Btm: **2011.05.20 @ 09:11:50**

TEST COMMENT: IF-Weak building blow . BOB in 36 minutes 50 seconds.
 IS-No Return.
 FF-Very weak building blow . Built to 8 inches.
 FSI-No Return.



PRESSURE SUMMARY

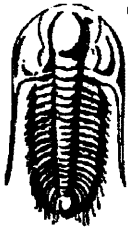
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1877.21	100.48	Initial Hydro-static
1	30.43	99.94	Open To Flow (1)
47	81.77	105.80	Shut-In(1)
93	608.25	108.25	End Shut-In(1)
94	90.83	108.11	Open To Flow (2)
139	128.55	110.14	Shut-In(2)
187	579.19	111.40	End Shut-In(2)
188	1721.90	111.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW 60%W 40%M	1.74
114.00	Mud	1.60

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI, Inc.

1310 Bison Rd.
Hays, KS 67601

ATTN: Jeff Lawler

Hiatt #1

7-14s-18w Ellis,KS

Job Ticket: 42889

DST#: 4

Test Start: 2011.05.20 @ 04:26:50

Tool Information

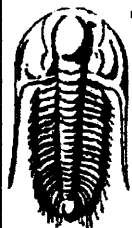
Drill Pipe:	Length: 3549.00 ft	Diameter: 3.80 inches	Volume: 49.78 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 30000.00 lb
		<u>Total Volume:</u>	<u>49.78 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3568.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	109.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3542.00	
Shut In Tool	5.00			3547.00	
Hydraulic tool	5.00			3552.00	
Jars	5.00			3557.00	
Safety Joint	2.00			3559.00	
Packer	5.00			3564.00	27.00 Bottom Of Top Packer
Packer	4.00			3568.00	
Stubb	1.00			3569.00	
Perforations	4.00			3573.00	
Change Over Sub	1.00			3574.00	
Drill Pipe	62.00			3636.00	
Change Over Sub	1.00			3637.00	
Recorder	0.00	8354	Inside	3637.00	
Recorder	0.00	8520	Outside	3637.00	
Perforations	10.00			3647.00	
Bullnose	3.00			3650.00	82.00 Bottom Packers & Anchor
Total Tool Length:	109.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Jeff Lawler

Hiatt #1
7-14s-18w Ellis,KS
Job Ticket: 42889 **DST#: 4**
Test Start: 2011.05.20 @ 04:26:50

Mud and Cushion Information

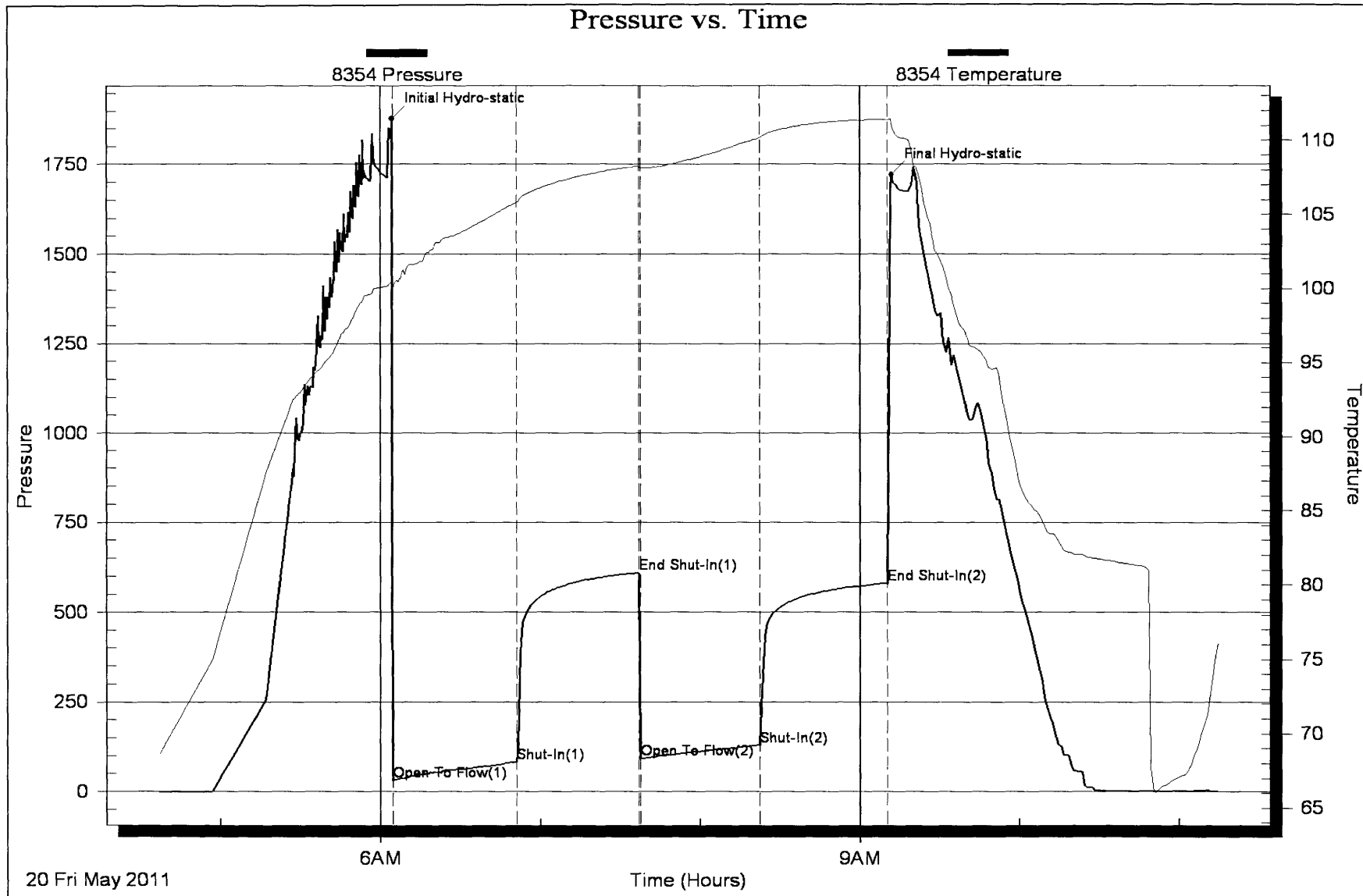
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	62500 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: 0.11 ohm.m	Gas Cushion Pressure: psig		
Salinity: 9900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	MW 60%W 40%M	1.739
114.00	Mud	1.599

Total Length: 238.00 ft Total Volume: 3.338 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Jeff Lawler

Hiatt #1
7-14s-18w Ellis, KS
Job Ticket: 42890 **DST#: 5**
Test Start: 2011.05.21 @ 12:11:30

GENERAL INFORMATION:

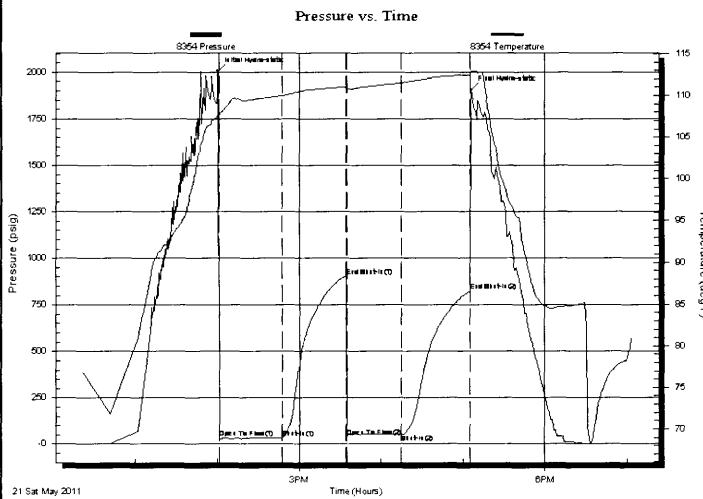
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:01:20
Time Test Ended: 19:03:00
Test Type: Conventional Straddle
Tester: Dustin Rash
Unit No: 38
Interval: **3718.00 ft (KB) To 3802.00 ft (KB) (TVD)**
Reference Elevations: 2161.00 ft (KB)
Total Depth: 3899.00 ft (KB) (TVD) 2150.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 11.00 ft

Serial #: 8354

Inside

Press@RunDepth: 54.63 psig @ 3788.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.05.21 End Date: 2011.05.21 Last Calib.: 2011.05.21
Start Time: 12:21:30 End Time: 19:03:00 Time On Btm: 2011.05.21 @ 14:00:30
Time Off Btm: 2011.05.21 @ 17:06:00

TEST COMMENT: IF-Weak building blow . Built to 5 inches.
IS-Weak surface return @ 20 seconds. Died @ 8 minutes.
FF-Weak building blow . Built to 4 inches.
FSI-No Return.



PRESSURE SUMMARY

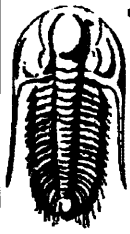
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2005.35	107.73	Initial Hydro-static
1	31.85	106.74	Open To Flow (1)
47	35.82	110.02	Shut-In(1)
94	904.06	111.06	End Shut-In(1)
95	39.67	110.81	Open To Flow (2)
135	54.63	111.55	Shut-In(2)
185	825.84	112.47	End Shut-In(2)
186	1904.09	112.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	70%Mud/30%Oil	0.70
45.00	100%Oil	0.63

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI, Inc.

Hiatt #1

1310 Bison Rd.
Hays, KS 67601

7-14s-18w Ellis,KS

Job Ticket: 42890 **DST#: 5**

ATTN: Jeff Lawler

Test Start: 2011.05.21 @ 12:11:30

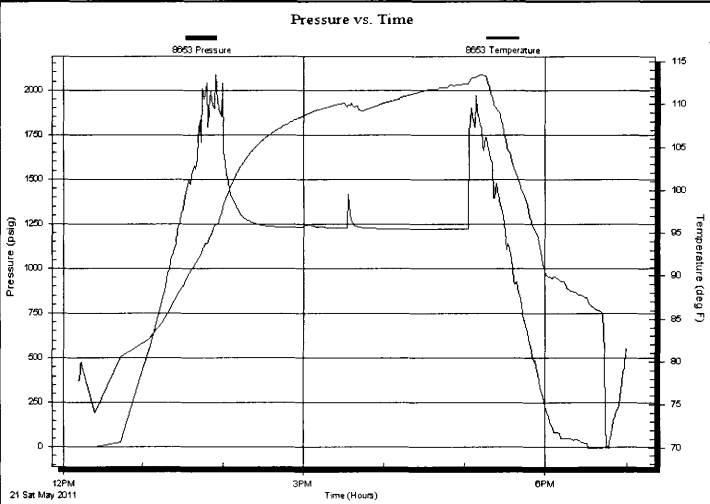
GENERAL INFORMATION:

Formation: Arbuckle		Test Type: Conventional Straddle
Deviated: No Whipstock:	ft (KB)	Tester: Dustin Rash
Time Tool Opened: 14:01:20		Unit No: 38
Time Test Ended: 19:03:00		
Interval: 3718.00 ft (KB) To 3802.00 ft (KB) (TVD)		Reference Elevations: 2161.00 ft (KB)
Total Depth: 3899.00 ft (KB) (TVD)		2150.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Poor	KB to GR/CF: 11.00 ft

Serial #: 8653 Below (Straddle)

Press@RunDepth: psig @ 3805.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2011.05.21 End Date: 2011.05.21	Last Calib.: 2011.05.21
Start Time: 12:11:55 End Time: 19:00:24	Time On Btm
	Time Off Btm

TEST COMMENT: IF-Weak building blow . Built to 5 inches.
 ISI-Weak surface return @ 20 seconds. Died @ 8 minutes.
 FF-Weak building blow . Built to 4 inches.
 FSI-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	70%Mud/30%Oil	0.70
45.00	100%Oil	0.63

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Jeff Lawler

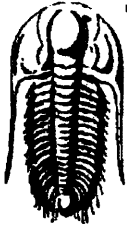
Hiatt #1
7-14s-18w Ellis,KS
Job Ticket: 42890 **DST#: 5**
Test Start: 2011.05.21 @ 12:11:30

Tool Information

Drill Pipe:	Length: 3713.00 ft	Diameter: 3.80 inches	Volume: 52.08 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 52.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3718.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	3799.00 ft			
Interval between Packers:	81.00 ft			
Tool Length:	204.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3699.00	
Shut In Tool	5.00			3704.00	
Hydraulic tool	5.00			3709.00	
Packer	5.00			3714.00	20.00 Bottom Of Top Packer
Packer	4.00			3718.00	
Stubb	1.00			3719.00	
Perforations	5.00			3724.00	
Change Over Sub	1.00			3725.00	
Drill Pipe	62.00			3787.00	
Change Over Sub	1.00			3788.00	
Recorder	0.00	8354	Inside	3788.00	
Recorder	0.00	8520	Outside	3788.00	
Perforations	10.00			3798.00	
Blank Off Sub	1.00			3799.00	81.00 Tool Interval
Packer	4.00			3803.00	
Stubb	1.00			3804.00	
Change Over Sub	1.00			3805.00	
Recorder	0.00	8653	Below	3805.00	
Drill Pipe	93.00			3898.00	
Change Over Sub	1.00			3899.00	
Bullnose	3.00			3902.00	103.00 Bottom Packers & Anchor
Total Tool Length:	204.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.

Hiatt #1

1310 Bison Rd.
Hays, KS 67601

7-14s-18w Ellis,KS

Job Ticket: 42890

DST#: 5

ATTN: Jeff Lawler

Test Start: 2011.05.21 @ 12:11:30

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.38 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 10000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

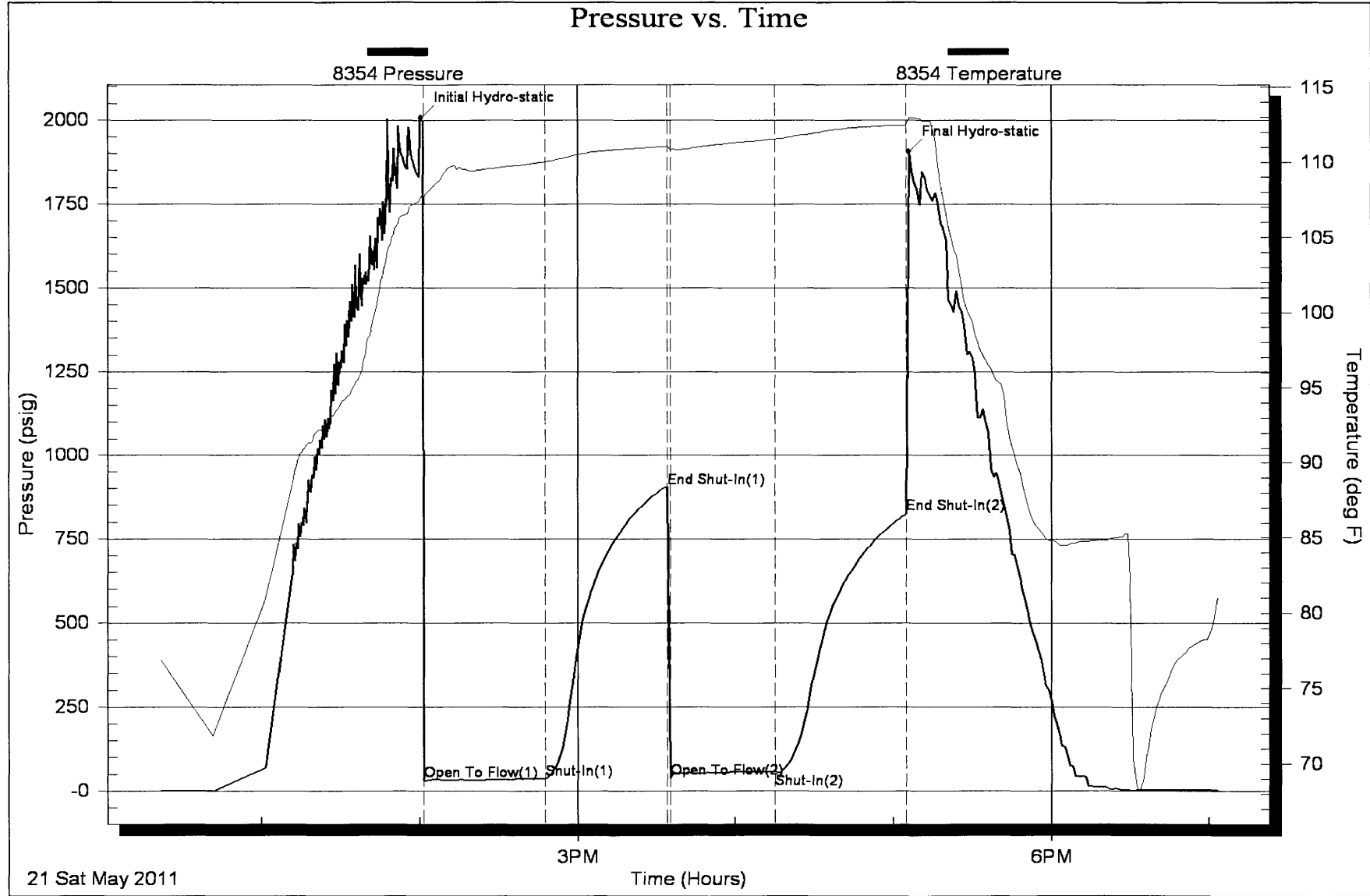
Length ft	Description	Volume bbl
50.00	70%Mud/30%Oil	0.701
45.00	100%Oil	0.631

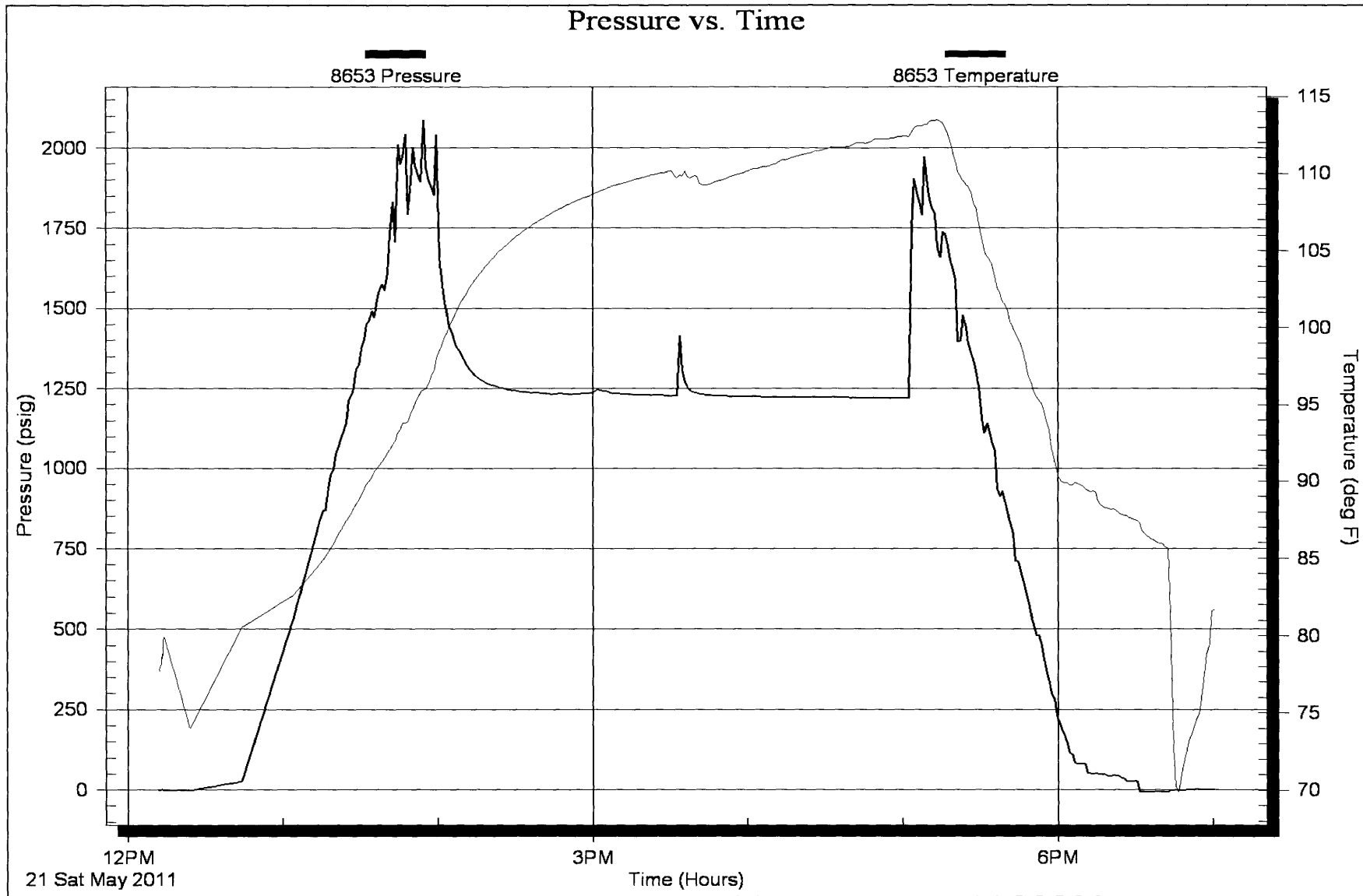
Total Length: 95.00 ft Total Volume: 1.332 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:





Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



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

Mark Sievers, Chairman
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

July 26, 2011

TDI, Inc.
1310 BISON RD
HAYS, KS 67601-9696

Re: ACO1
API 15-051-26123-00-00
Hiatt 1
SW/4 Sec.07-14S-18W
Ellis County, Kansas

Dear Production Department:

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

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

Respectfully,
Tom Denning