SUPERIOR WELL SERVICES

SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY NEUTRON LOG

Company XTO Energy Inc.
Well Hill Ranch 31-08
Field Purgatoire River
County Las Animas
State Colorado

Company	XTO Energy Inc.		
Well	Hill Ranch 31-08		
Field	Purgatoire River		
County	Las Animas	State	Colorado

Location: API # : 05 071 09200 00

2081' FNL & 227' FEL

SEC 31 TWP 34S RGE 67W

Other Services
DIL

Permanent Datum	Ground Level	Elevation	8214'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		

Elevation
K.B. ------
D.F. ------
G.L. 8214'

Date	4-02-07		
Run Number	Two		
Depth Driller	2785'		
Depth Logger	1959'		
Bottom Logged Interval	1957'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 482'		
Casing Logger	482'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	2:15 P.M.		
Time Logger on Bottom	4:45 P.M.		
Maximum Recorded Temperature	96 DEG F		
Equipment Number	T0697		
Location	Trinidad		
Recorded By	M. Norton		
Witnessed By	Mr. Gary Hawkins		

<<< 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

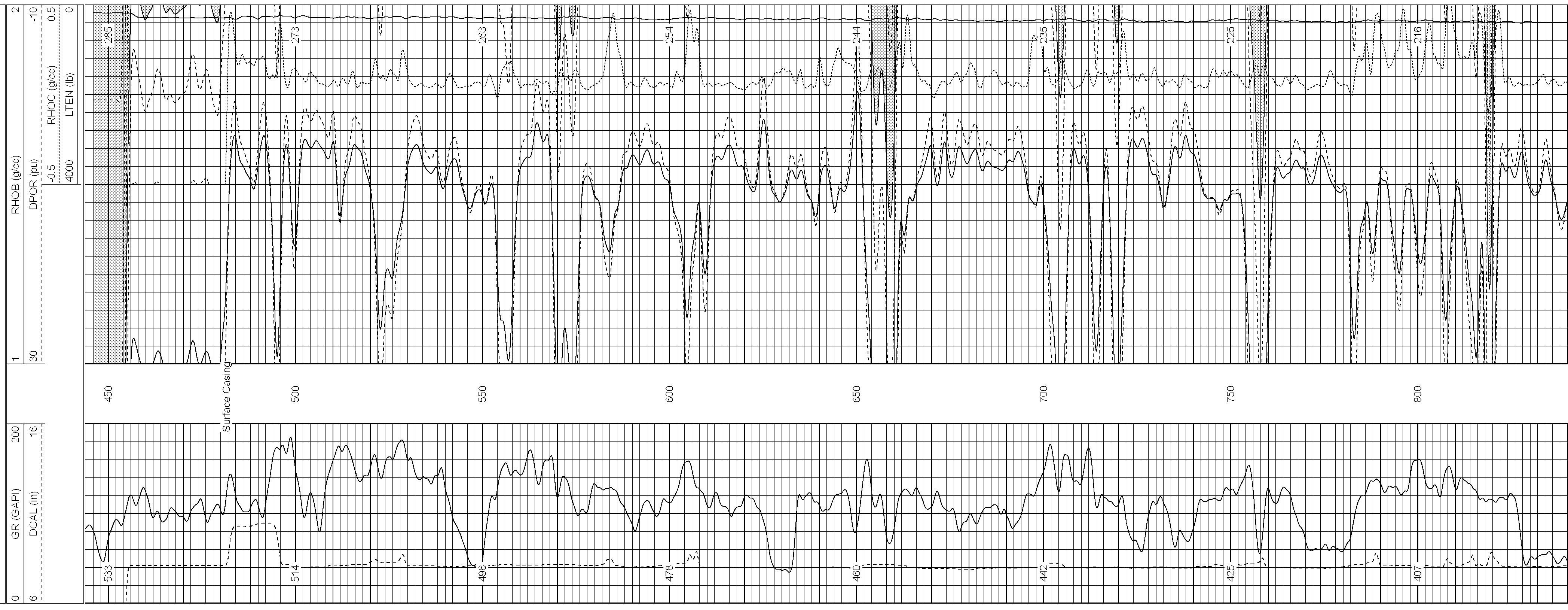
Density Neutron Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing
Well Directions:
First Bosque just before Weston, up Little Bingham thru Hill Ranch cattle gaurd, second right, first location on the right.

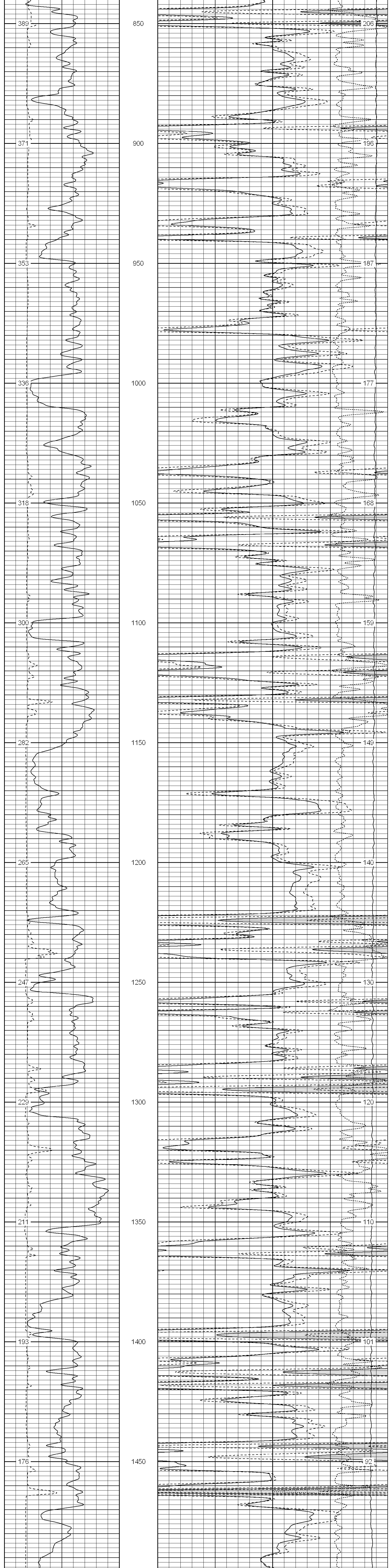
SUPERIOR WELL SERVICES

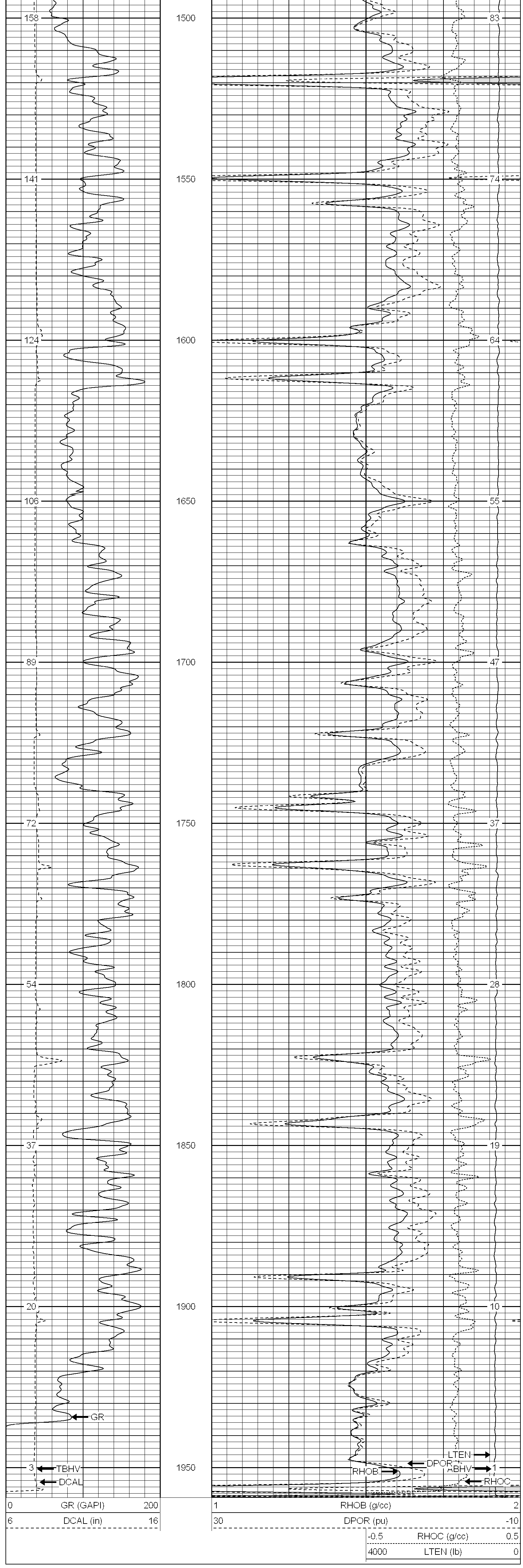
SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

Main Pass

Database File:	xtohr3108.db
Dataset Pathname:	pass4.1
Presentation Format:	cdl
Dataset Creation:	Tue Apr 03 01:55:26 2007 by Calc Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240







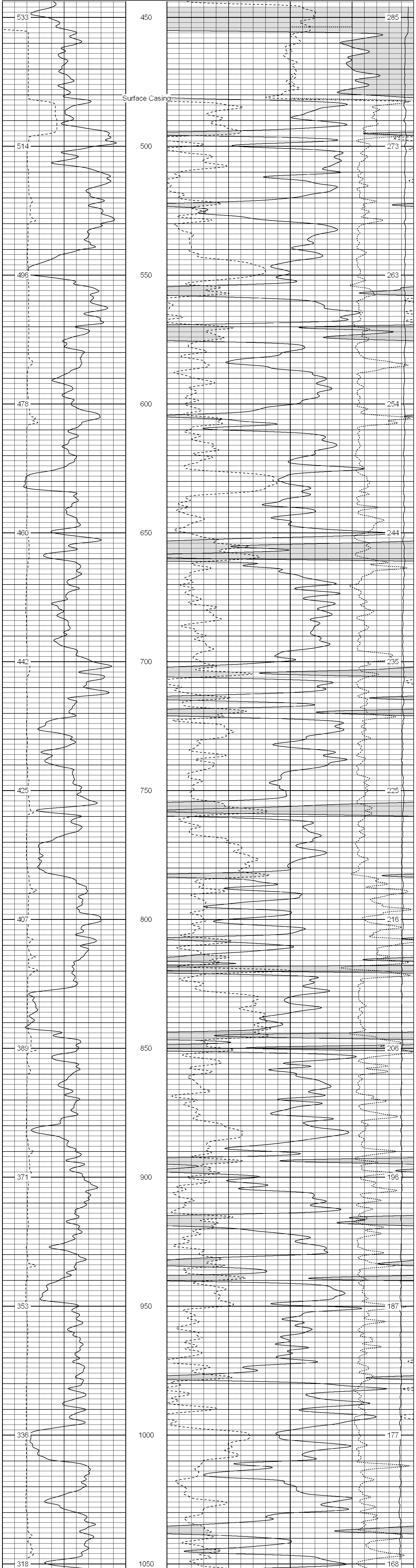
SUPERIOR WELL SERVICES

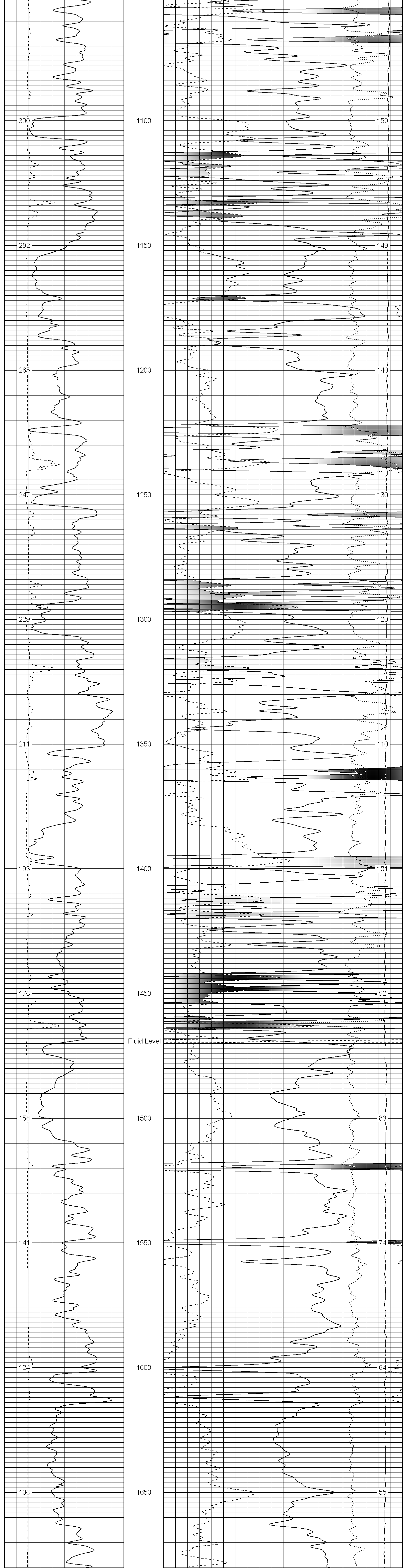
SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

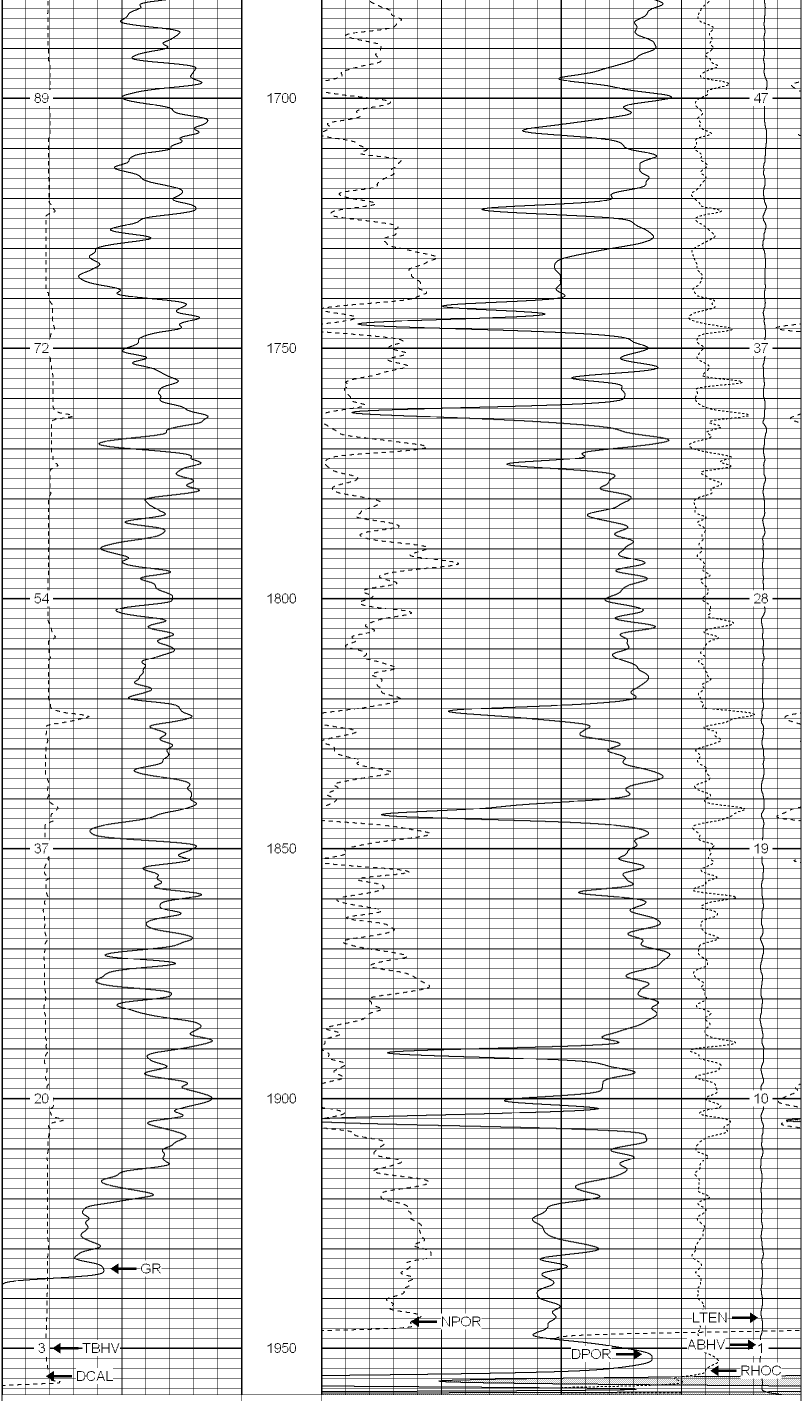
Main Pass

Database File:	xtohr3108.db
Dataset Pathname:	pass4.1
Presentation Format:	cdnl
Dataset Creation:	Tue Apr 03 01:55:26 2007 by Calc Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

0 GR (GAPI) 200
6 DCAL (in) 16
30 NPOR (pu) -10
30 DPOR (pu) -10
-0.5 RHOC (g/cc) 0.5
4000 LTEN (lb) 0







0	GR (GAPI)	200
6	DCAL (in)	16

30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0

SUPERIOR WELL SERVICES

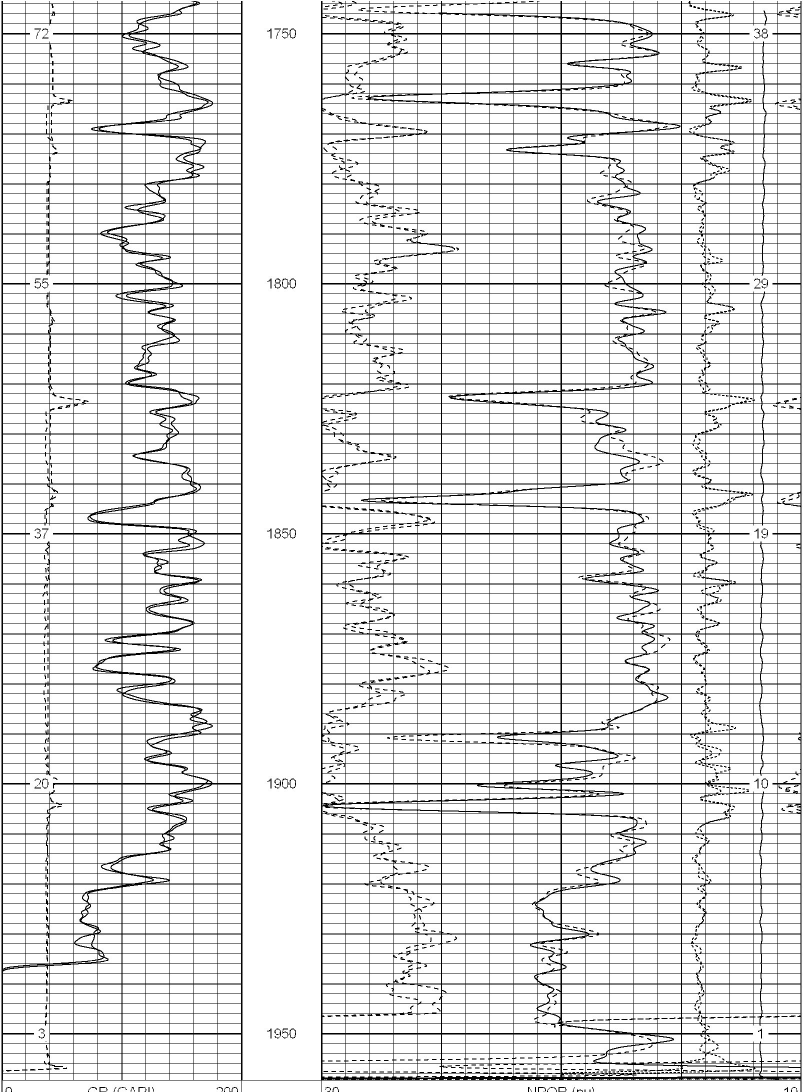
SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

Repeat Section

Database File:	xtohr3108.db
Dataset Pathname:	pass3.1
Presentation Format:	cdnl
Dataset Creation:	Tue Apr 03 01:54:43 2007 by Calc Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
6	DCAL-repeat (in)	16
0	GR-repeat (GAPI)	200

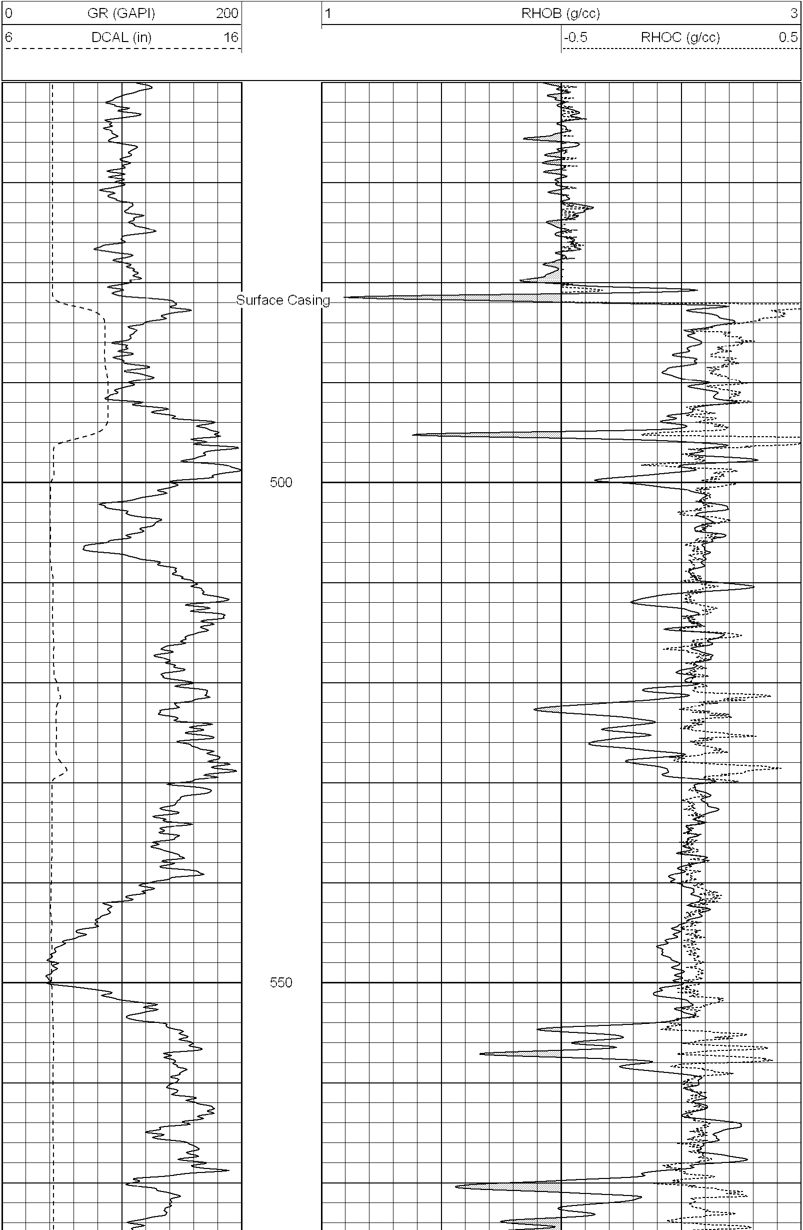
30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5

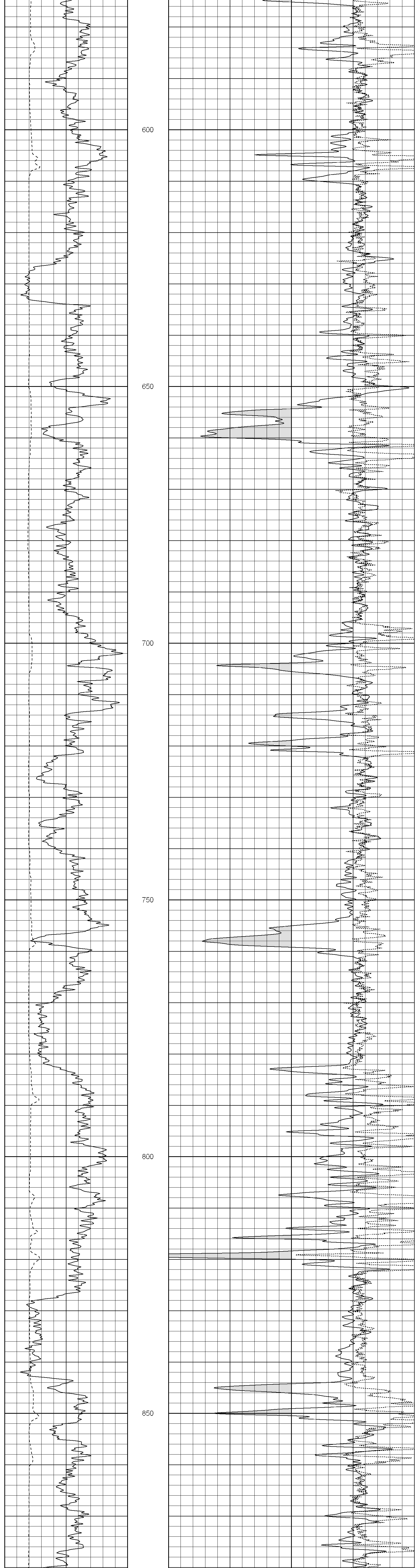


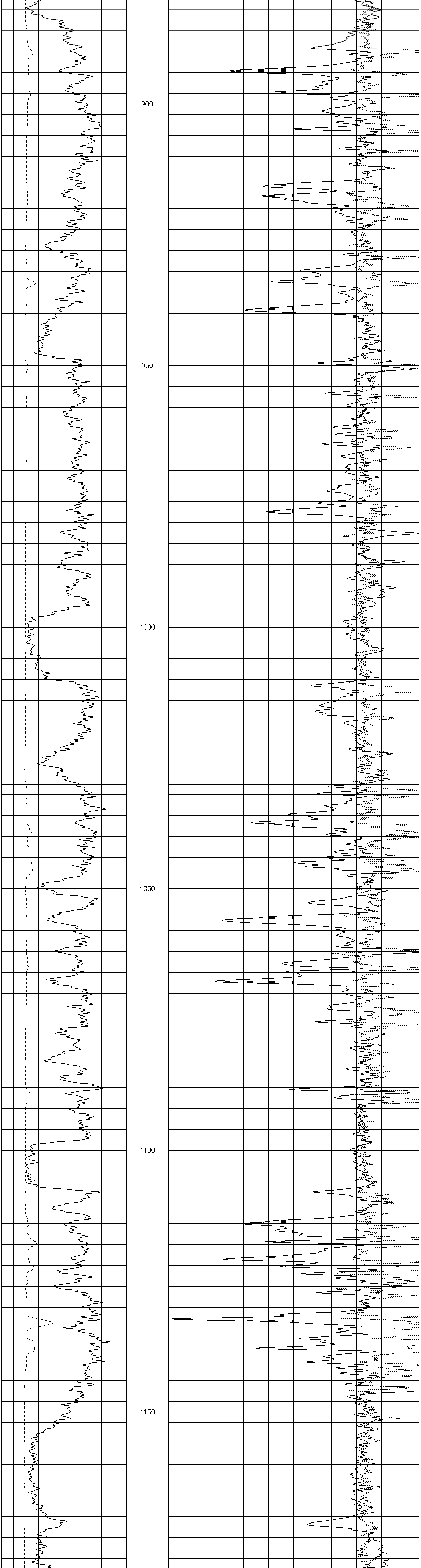
0	GR (GAPI)	200
6	DCAL (in)	16
6	DCAL-repeat (in)	16
0	GR-repeat (GAPI)	200

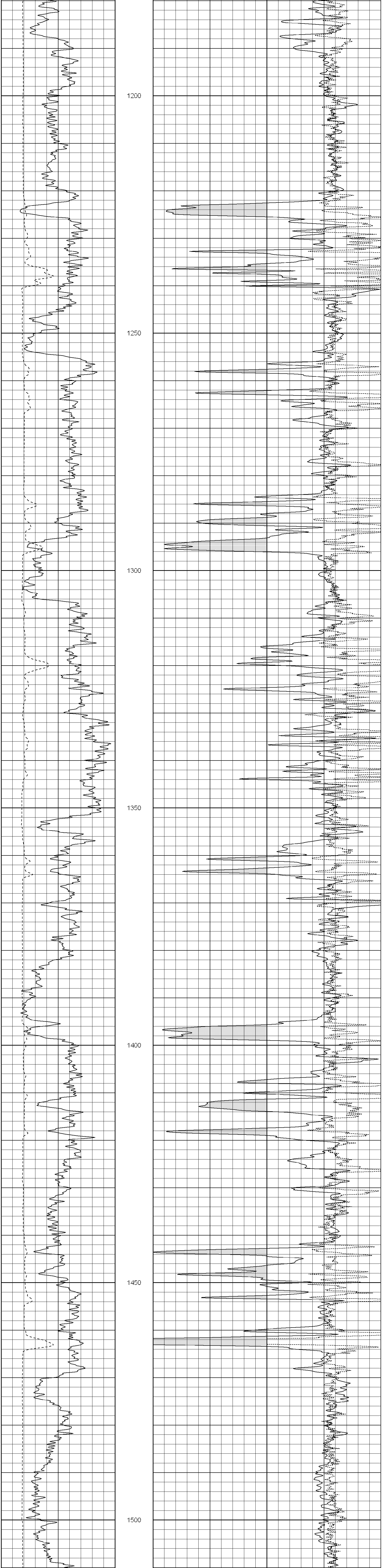
30	NPOR (pu)	-10
30	DPOR (pu)	-10
30	NPOR-repeat (pu)	-10
30	DPOR-repeat (pu)	-10
-0.5	RHOC (g/cc)	0.5
4000	LTEN (lb)	0
-0.5	RHOC-repeat (g/cc)	0.5

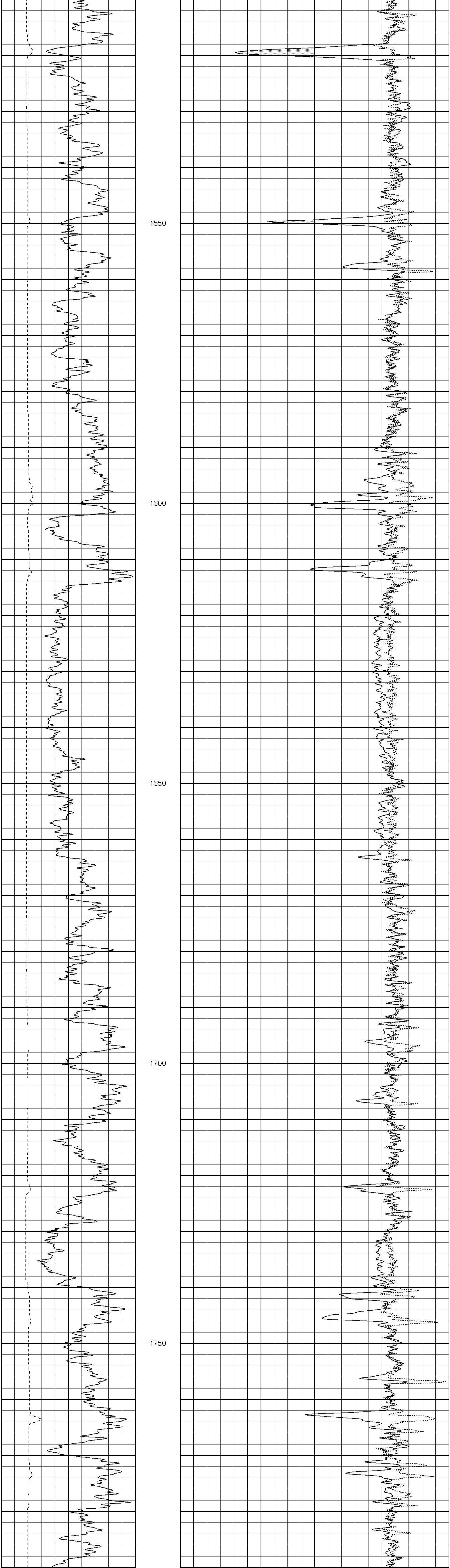
Database File: xtohr3108.db
Dataset Pathname: pass4.2
Presentation Format: cdlhr
Dataset Creation: Tue Apr 03 14:33:17 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:120

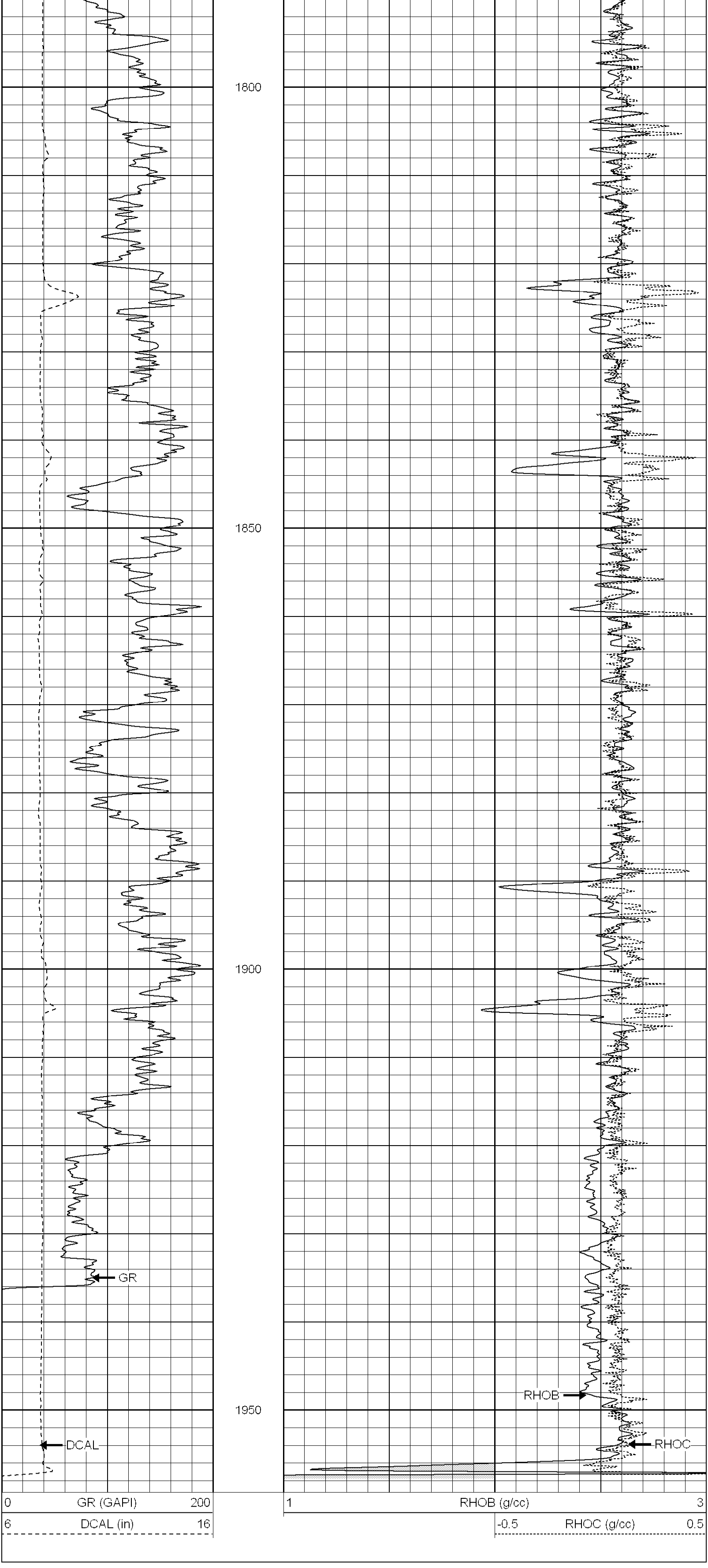












Calibration Report

Database File: xtohr3108.db
Dataset Pathname: pass4
Dataset Creation: Mon Apr 02 16:05:46 2007 by Log Open-Cased 061129

Compensated Density Calibration Report

Serial-Model: 2119-O
Source / Verifier: csv-j12 / blks
Master Calibration Performed: Wed Mar 28 17:52:23 2007

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	988.49	602.41	cps
Aluminum	2.590	g/cc	220.69	404.88	cps

Spine Angle = 75.16

Density/Spine Ratio = 0.567

	Size		Reading	
Small Ring	7.85	in	2.95	V
Large Ring	14.00	in	8.81	V

Gamma Ray Calibration Report

Serial Number: 2119
Tool Model: O
Performed: Mon Jan 15 08:35:20 2007

Calibrator Value: 170.0 GAPI

Background Reading: 42.6 cps
Calibrator Reading: 139.0 cps

Sensitivity: 1.0000 GAPI/cps

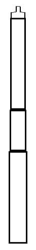
Neutron Calibration Report

Serial Number: 5145
Tool Model: G
Performed: Thu Jan 25 22:38:45 2007

Calibrator Value: 1200 NAPI

Calibrator Reading: 1700 cps

Sensitivity: 1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			None	0.75	1.50	5.00
NEU	12.44		NEU-G (5145) Gearhart Epithermal	5.75	3.50	85.00
GR	7.64		GR-O (2119) Oilex	2.60	3.63	74.00
LSD DCAL SSD	2.13 1.79 1.58		CDL-O (2119) Oilex	5.77	4.00	201.00

Dataset: xtohr3108.db: field/well/run1/pass4
Total Length: 14.87 ft
Total Weight: 365.00 lb
O.D. 4.00 in