SUPERIOR WELL SERVICES

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

COMPENSATED DENSITY NEUTRON LOG

Company	XTO Energy Inc.
Well	Apache Canyon 25-01
Field	Purgatoire River
County	Las Animas
State	Colorado

Company XTO Energy Inc.
Well Apache Canyon 25-01
Field Purgatoire River
County Las Animas State Colorado
Location: API #: 05 071 09283 00
882' FNL & 322' FEL
SEC 25 TWP 34S RGE 68W

Other Services
dil

Permanent Datum	Ground Level	Elevation 7961'	Elevation K.B. ____ D.F. ____ G.L. 7961'
Log Measured From	Ground Level		
Drilling Measured From	Ground Level		

Date	7-21-07		
Run Number	One		
Depth Driller	2385'		
Depth Logger	2367'		
Bottom Logged Interval	2344'		
Top Log Interval	Surface Casing		
Casing Driller	8 5/8" @ 496'		
Casing Logger	496'		
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	10:30 a.m.		
Time Logger on Bottom	1:00 p.m.		
Maximum Recorded Temperature	110		
Equipment Number	T697		
Location	Trinidad		
Recorded By	L. Smith		
Witnessed By	Mr. Don Johnson		

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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 entrance just before Weston, stay on main road past camp site,
thru gate, second left, at Y stay left, first drive thru location.

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Main Pass

Database File: xtoac2501.db
Dataset Pathname: pass2.2
Presentation Format: cdl
Dataset Creation: Sat Jul 21 14:42:04 2007
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	1	RHOB (g/cc)	2
6	DCAL (in)	16	30	DPOR (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0

0	GR (GAPI)	200	1	RHOB (g/cc)	2
6	DCAL (in)	16	30	DPOR (pu)	-10
			-0.5	RHOC (g/cc)	0.5
			4000	LTEN (lb)	0

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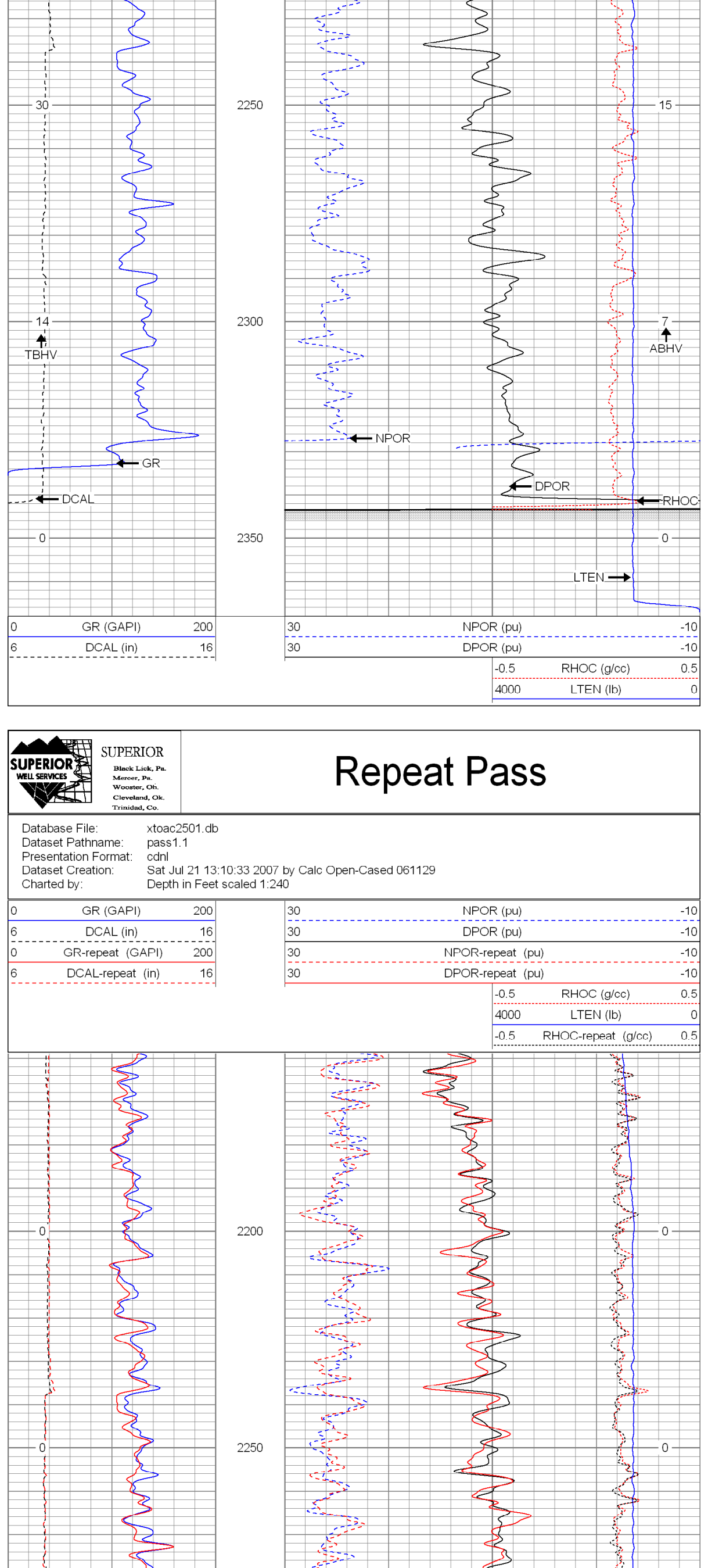
Main Pass

Database File: xtoac2501.db
Dataset Pathname: pass2.2
Presentation Format: cdnl
Dataset Creation: Sat Jul 21 14:42:04 2007
Charted by: Depth in Feet scaled 1:240

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



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

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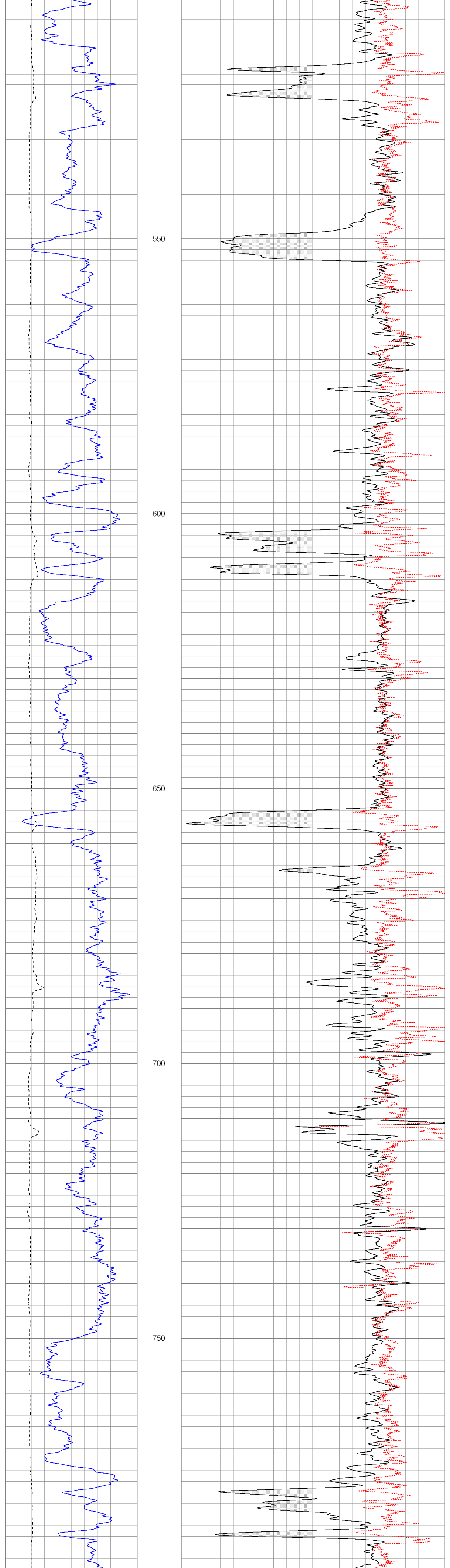
Repeat Pass

Database File: xtoac2501.db
Dataset Pathname: pass1.1
Presentation Format: cdnl
Dataset Creation: Sat Jul 21 13:10:33 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

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

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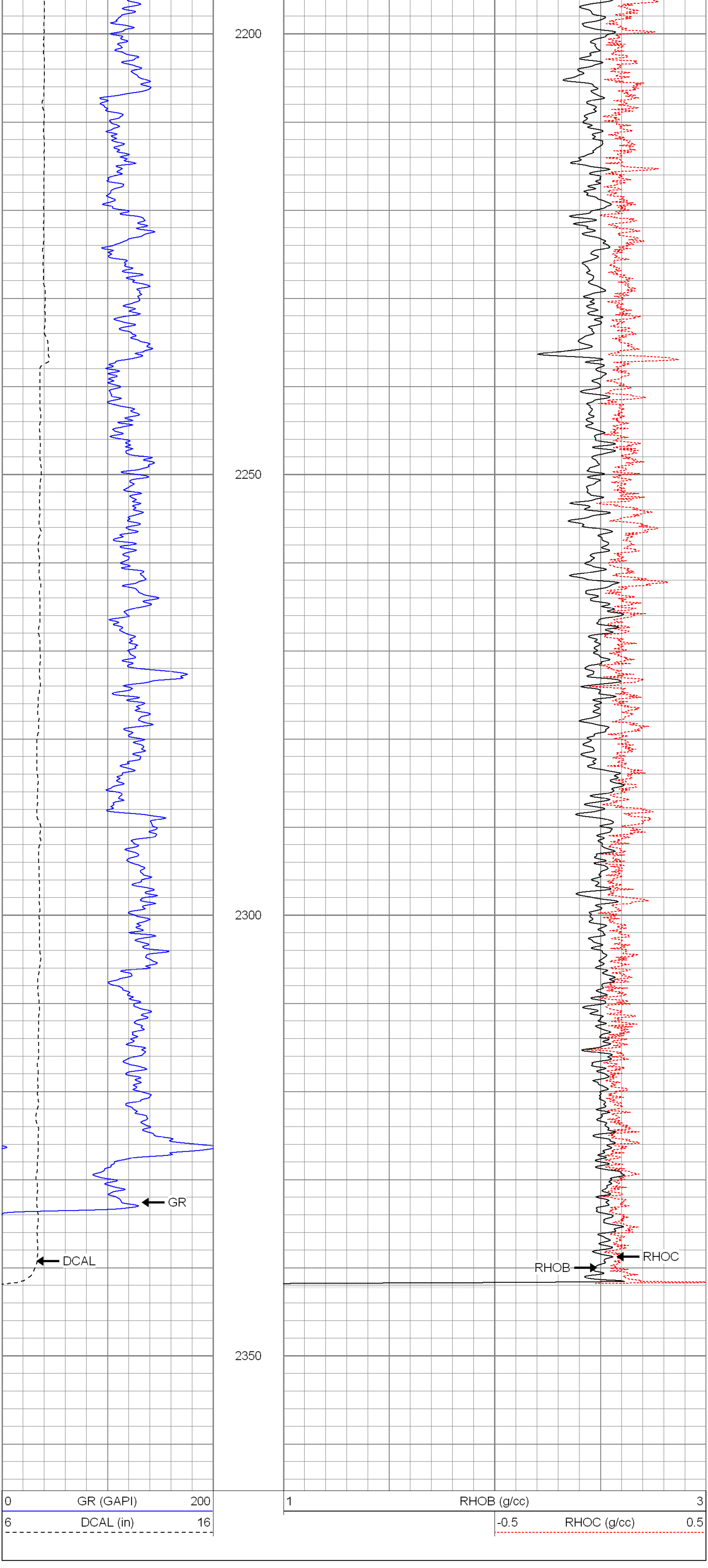
High Resolution Pass

Database File: xtoac2501.db
Dataset Pathname: pass2.3
Presentation Format: cdlhr
Dataset Creation: Mon Jul 23 07:28:59 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:120

0	GR (GAPI)	200	1	RHOB (g/cc)	3
6	DCAL (in)	16	-0.5	RHOC (g/cc)	0.5



Calibration Report

Database File: xtoac2501.db
Dataset Pathname: pass1
Dataset Creation: Sat Jul 21 12:47:06 2007 by Log Open-Cased 061129

Dual Induction Calibration Report

Serial-Model: 5375-G
Surface Cal Performed: Thu Jul 05 11:35:02 2007
Downhole Cal Performed: Thu Jul 05 11:35:16 2007

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.659	-1.119
Medium	0.005	0.743	V	0.000	550.000	mmho-m	744.727	-3.505
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.620	V	0.000	500.000	mmho-m	807.698	-1.159
Medium	0.005	0.743	V	0.000	550.000	mmho-m	744.801	-3.569

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.123	499.901	mmho-m	0.039	500.015	mmho-m	1.000	-0.084
Medium	0.245	549.982	mmho-m	0.064	550.009	mmho-m	1.000	-0.182
Shallow	2.506	0.009	V	500.000	2.000	Ohm-m	150.000	-5.000

Compensated Density Calibration Report

Serial-Model: 2118-poilex
Source / Verifier: /
Master Calibration Performed: Wed Jul 11 09:42:26 2007

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	665.94	685.05	cps
Aluminum	2.590	g/cc	149.68	463.33	cps

Spine Angle = 75.32
Density/Spine Ratio = 0.570

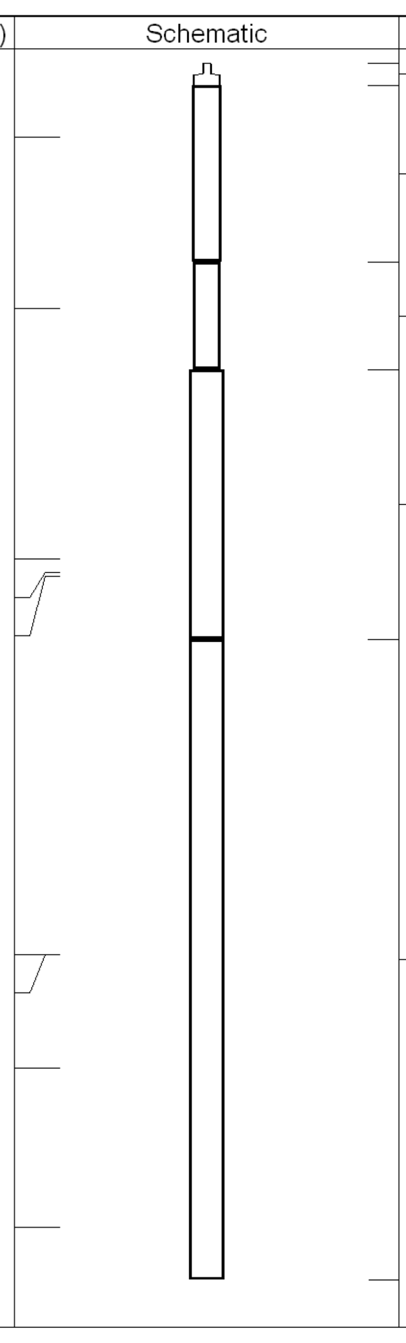
	Size		Reading	
Small Ring	7.85	in	4.00	V
Large Ring	14.00	in	9.25	V

Gamma Ray Calibration Report

Serial Number:	2001	
Tool Model:	OH	
Performed:	Tue Jul 10 07:42:35 2007	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2500	GAPI/cps

Neutron Calibration Report

Serial Number:	5145	
Tool Model:	G	
Performed:	Sat Jul 21 07:01:21 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	37.19		NEU-G (5145) Gearhart Epithermal	5.75	3.50	85.00
GR	31.62		GR-OH (2001) SIE	3.50	3.25	40.00
			CDL-poilex (2118)	8.79	4.00	275.00
LSD DCAL SSD	23.45 23.04 22.91					
CILD SP	10.60 10.60		DIL-G (5375) Gearhart	20.83	4.00	345.00
CILM	6.89					
RLL3	1.70					

Dataset: xtoac2501.db: field/well/run1/pass1
Total Length: 39.62 ft
Total Weight: 750.00 lb
O.D. 4.00 in