

**Tucker**  
ENERGY SERVICES

**COMPOSITE LOG**

<b>Company</b> LACHENMAYR OIL LLC <b>Well</b> ELMDALE CEMETARY ASSOCIATION #L-1 <b>Field</b> ELK <b>County</b> CHASE <b>State</b> KANSAS <b>Country</b> USA <b>API No.</b> 15-017-20911-00-00		<b>File No</b> : TUL58809 <b>Company</b> : LACHENMAYR OIL LLC <b>Well</b> : ELMDALE CEMETARY ASSOCIATION #L-1 <b>Field</b> : ELK <b>County</b> : CHASE <b>State</b> : KANSAS <b>Country</b> : USA <b>API No</b> : 15-017-20911-00-00	
<b>Permanent Datum:</b> <b>Drilling Measured From:</b> <b>Log Measured From:</b> <b>Above Permanent Datum:</b>		<b>Location:</b> 2310' FNL & 460' FWL E2 SW SW NW	
<b>Date</b> : 2012-11-11		<b>Sect</b> : 34 <b>Twp</b> : 19S <b>Rge</b> : 06E	
<b>Run Number</b>	1	<b>Elevations:</b>	<b>Services:</b>
<b>Depth--Driller</b>	2100.0 Ft	KB 1363.00	GRT    PIT
<b>Depth--Logger</b>	2100.0 Ft	DF 1362.00	CNT
<b>First Reading</b>	2099.0 Ft	GL 1358.00	LDT
<b>Last Reading</b>	222.0 Ft		
<b>Casing--Driller</b>	200.0 Ft		
<b>Casing--Logger</b>	0.0 Ft		
<b>Bit Size</b>	7.875 In		
<b>Casing Size</b>	8.625 In		
<b>Hole Fluid Type</b>	WBM		
<b>Density</b>	9.4 LBS/GAL		
<b>Fluid Loss</b>	9.6 CC		
<b>PH/Viscosity</b>	9.0    35.0 SEC		
<b>Sample Source</b>	MEASURED		
<b>RMF@Measured Temp.</b>	2.200 @ 70 F		
<b>RMF@Measured Temp.</b>	1.900 @ 70 F		
<b>RMC@Measured Temp.</b>	2.500 @ 70 F		
<b>Source RMF/RMC</b>	CALCULATED/CALCULATED		
<b>RM@BHT</b>	1.700 @ 90 F		
<b>Time Circulation Stopped</b>	90		
<b>Max Recorded Temp.</b>	F		
<b>Equipment/Base</b>	TRK 119    TULSA		
<b>Recorded By</b>	Z. HICKMAN, R. FRANKLIN		
<b>Witnessed By</b>	H. LACHENMAYR		

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
7.875	2100.00	8.625	24.00	200.00

<b>Run Number</b>	1		
<b>Date</b>	2012-11-11		
<b>Date/Time On Bottom</b>	2012-11-11 01:45		
<b>Depth to Fluid</b>	0.0 Ft		
<b>Salinity</b>	0.000 PPM		
<b>RMF@BHT</b>	1.500 @ 90 F		
<b>RMC@BHT</b>	2.000 @ 90 F		

Run Number 1

Comments

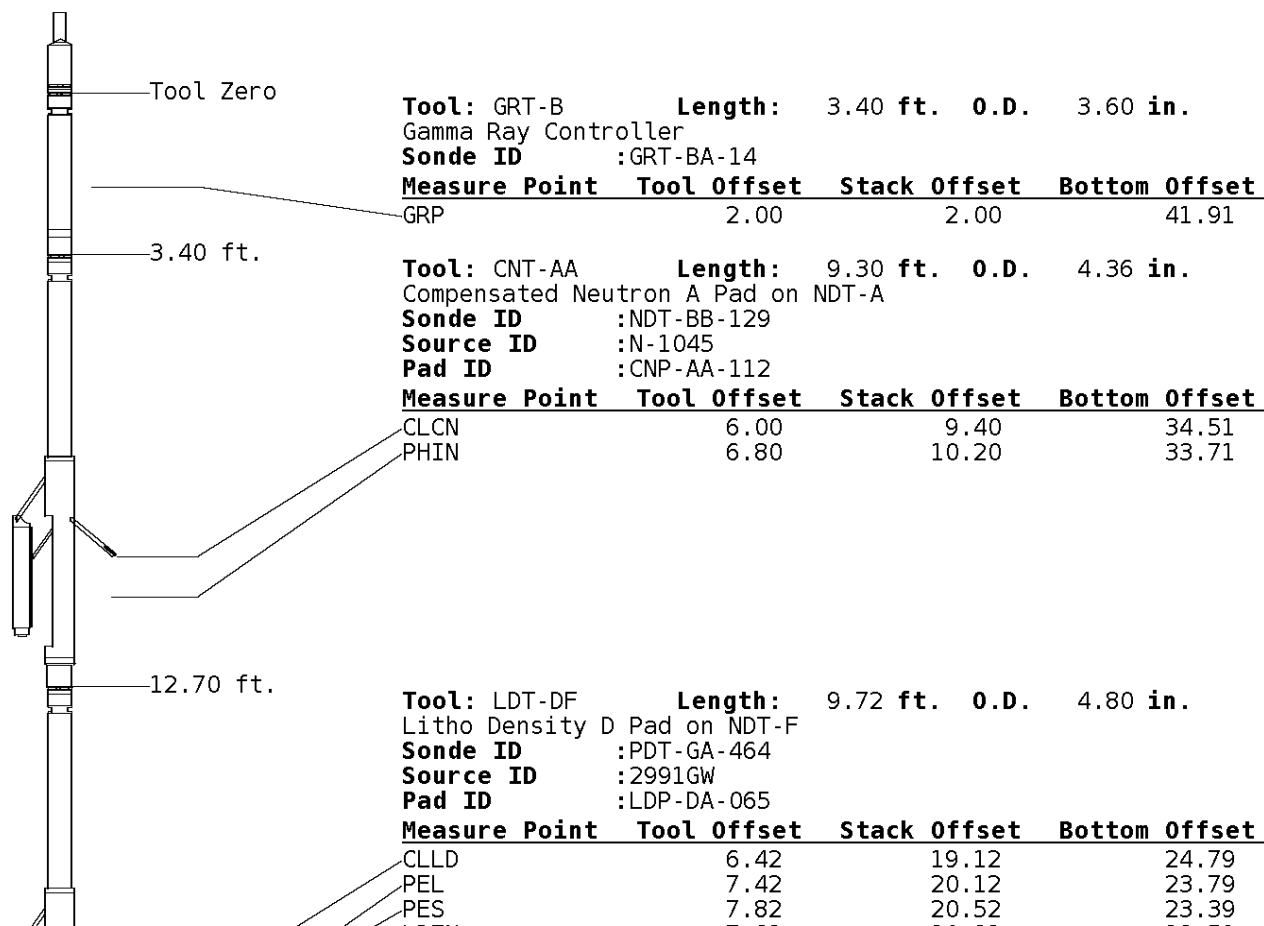
ALL PRESENTATIONS AS PER CUSTOMER REQUEST  
 GRT, CNT, LDT AND PIT RUN IN COMBINATION.  
 CALIPERS ORIENTED ON X-Y AXIS.  
 2.87 G/CC USED TO CALCULATED POROSITY.  
 ANNULAR HOLE VOLUME CALCULATED USING 5.5' PRODUCTION CASING.

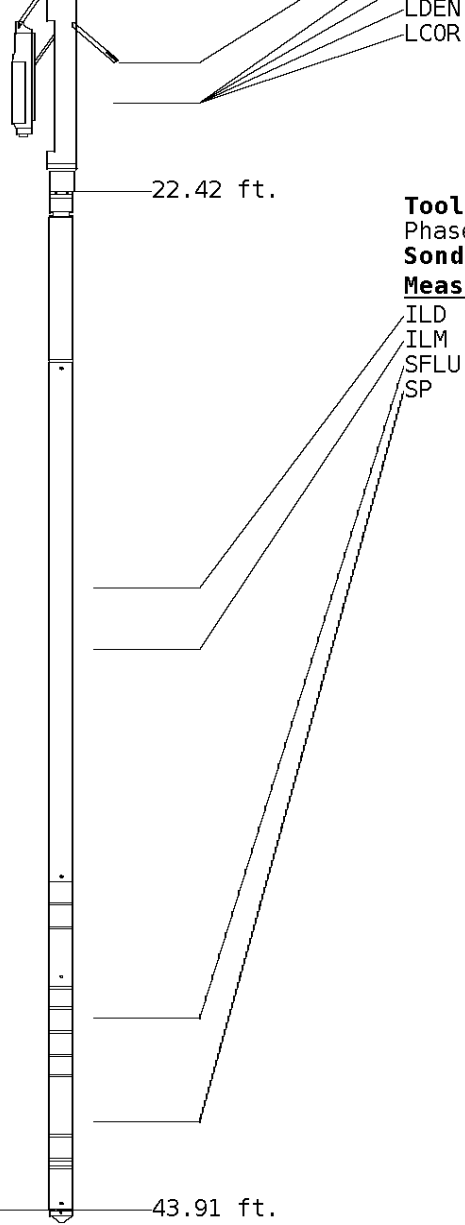
GRT: GRP.  
 CNT: PHIN, CLCNIN  
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.  
 PIT: ILD, ILM, SPU, SFLAEC

OPERATORS:  
 M. RUBY  
 D. HOPPER

### Tool String Schematic

**Total Tool Length** - 43.91 ft.  
**Maximum Outside diameter** - 4.80 in.  
**Net Weight in Air** - 743.00 lbs.





LDEN 7.62 20.32 23.59  
 LCOR 7.62 20.32 23.59

**Tool:** PIT-CA      **Length:** 21.49 ft.    **O.D.** 3.62 in.  
 Phased Dual Induction w/ RM & D  
**Sonde ID** :PIT-AC-22

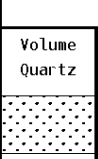
Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	31.34	12.56
ILM	10.10	32.52	11.39
SFLU	17.49	39.91	4.00
SP	20.60	43.02	0.88

**Well File:** LACH ELM L-1 NOV 11\_STK      **Scale:** 1:240  
**Segment:** V1.D2.S2 repeat      **Acquired:** 2012-11/11 01:49 3.2.0-11087  
**Reference:** 0      **Processed:** 2012-11/11 01:49 3.2.0-11087

BIT SIZE INCHES (IN)	
6	16

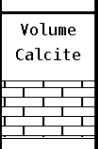
NEUTRON (Y) CALIPER INCHES (IN)	
16	26
6	16

DENSITY (X) CALIPER INCHES (IN)	
16	26
6	16



DENSITY POROSITY (2.87g/cc) PERCENT	
70	30
30	-10
-10	-50

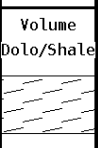
TENSION LBS	
10000	0



SHALLOW FOCUSED RESISTIVITY OHMM	
0.2	2000.0

NEUTRON POROSITY (DOLOMITE) PERCENT	
70	30
30	-10
-10	-50

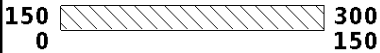
SPONTANEOUS POTENTIAL mV	
→   ←	20



DEEP INDUCTION OHMM	
0.2	2000.0

DENSITY CORRECTION G/CC	
-0.75	0.25

GAMMA RAY  
API UNITS



BHV AHV  
CU. FT

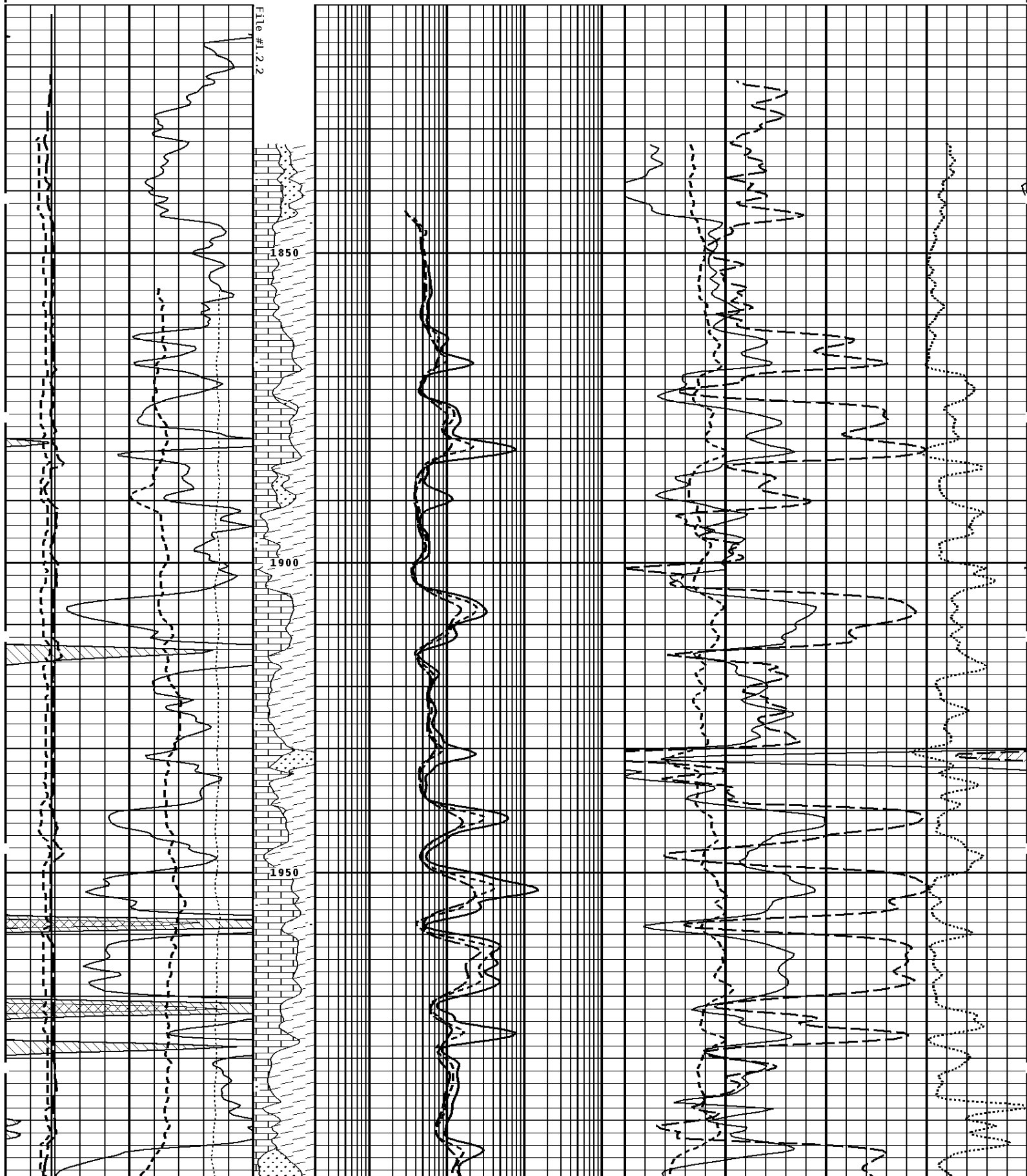
MEDIUM INDUCTION  
OHMM

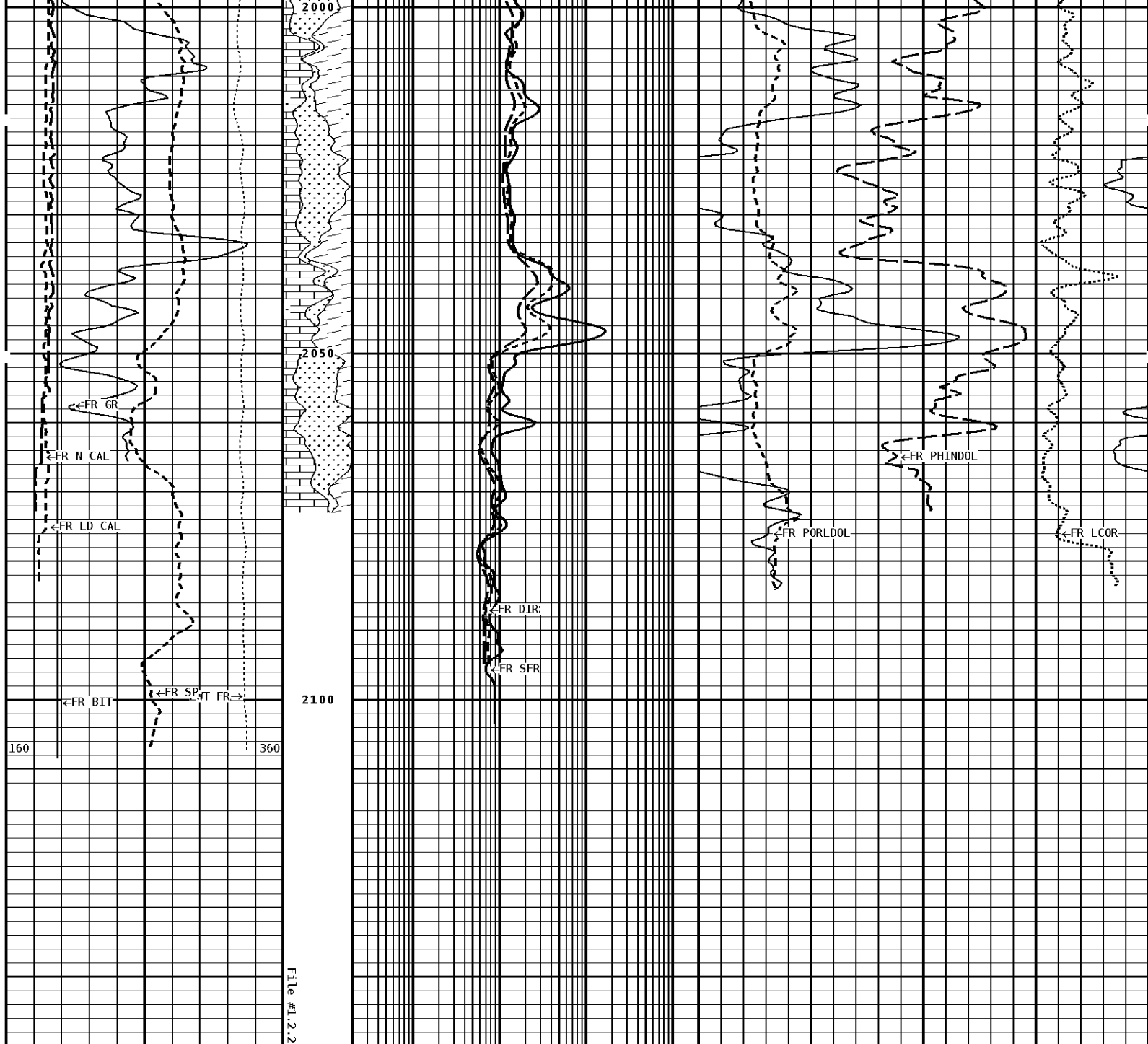


PE CROSS-SECTION  
BARN/ELECTRON



# 1:240 REPEAT SECTION





1:240 REPEAT SECTION

<b>GAMMA RAY</b> <b>API UNITS</b> 150 0 300 150	<b>BHV AHV</b> <b>CU. FT</b>	<b>MEDIUM INDUCTION</b> <b>OHMM</b> 0.2 2000.0 0	<b>PE CROSS-SECTION</b> <b>BARNS/ELECTRON</b> 0 20
<b>SPONTANEOUS POTENTIAL</b> <b>mV</b> →   ← 20	Volume Dolo/Shale	<b>DEEP INDUCTION</b> <b>OHMM</b> 0.2 2000.0	<b>DENSITY CORRECTION</b> <b>G/CC</b> -0.75 0.25
<b>TENSION</b> <b>LBS</b> 10000 0	Volume Calcite	<b>SHALLOW FOCUSED RESISTIVITY</b> <b>OHMM</b> 0.2 2000.0	<b>NEUTRON POROSITY (DOLOMITE)</b> <b>PERCENT</b> 70 30 30 -10 -10 -50
<b>DENSITY (X) CALIPER</b> <b>INCHES (IN)</b> 16 26	Volume Quartz		<b>DENSITY POROSITY (2.87g/cc)</b> <b>PERCENT</b> 70 30

6	16	
NEUTRON (Y) CALIPER INCHES (IN)		
16	26	
6	16	
BIT SIZE INCHES (IN)		
6	16	

30	-10
-10	-50



Company: LACHENMAYR OIL LLC  
 Well: ELMDALE CEMETARY ASSOCIATION #L-1  
 Location: 2310' FNL & 460' FWL  
 Logged: 2012-11-11  
 K.B. Elev: 1363.0