217-22417

DUAL INDUCTION RESISTIVITY LOG

Tucker WIRELINE SERVICES

File No. : TIT-54187
Company : RUNNING FOXES PETROLEUM, INC.
Well : EMERSON 12-6B INJ
Field : VERNON
County : VERNON
State : MISSOURI
Country : USA
Location : PERMIT# 34417 2015' FSL & 365' FWL
Sec : 6 Twp : 36N Rge : 33W

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

Recorded By : B.AUSTIN
Witnessed By : B.WALKER

Elevations : 865.00

Additional Services
CNT
LDT

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation, conversion of log data to physical rock parameters or recommendations which may be given by T. W. 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 service provided by T. W. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretation, conversion or recommendations as aforesaid.

Run Number 1

Depth To Fluid	0.0	FT	
Fluid Type In Hole	FRESH/NATIVE		
Density	0.000	SG	
Viscosity	0.000	SEC	
pH	0.000		
Fluid Loss	0.000		
Salinity	0.000	KPPM	
RM Source	MEASURED		
RM	16.700	OHMM at	71 F
RM at BHT	15.321	OHMM at	78 F
RMF Source	CALCULATED		
RMF	14.195	OHMM at	71 F
RMF at BHT	13.023	OHMM at	78 F
RMC Source	CALCULATED		
RMC	19.205	OHMM at	71 F
RMC at BHT	13.619	OHMM at	78 F
Max Recorded Temp.			78 F
Time Circulation Stopped			
Operating Rig Time, Hrs.			1.0

- Source Serial Numbers -

Gamma	CSV587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-AA-103
CNT	CNP-AA-103
LDTNG	LDP-NG-35
PIT_B	PIT-AB-18

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	21.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, PIT RAN IN COMBINATION.
CALIPERS ORIENTED ON THE X-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 4.500" PRODUCTION CASING.

GRT: GRP.
CNT: PHIN, CLCNIN, PHINLS.
LDT: PDEL, LCORR, PHILN, CLLDIN, LDENN, PDELLS, PHIDN.
PIT: ILD, ILM, CIRD, SFLAEC, SPU

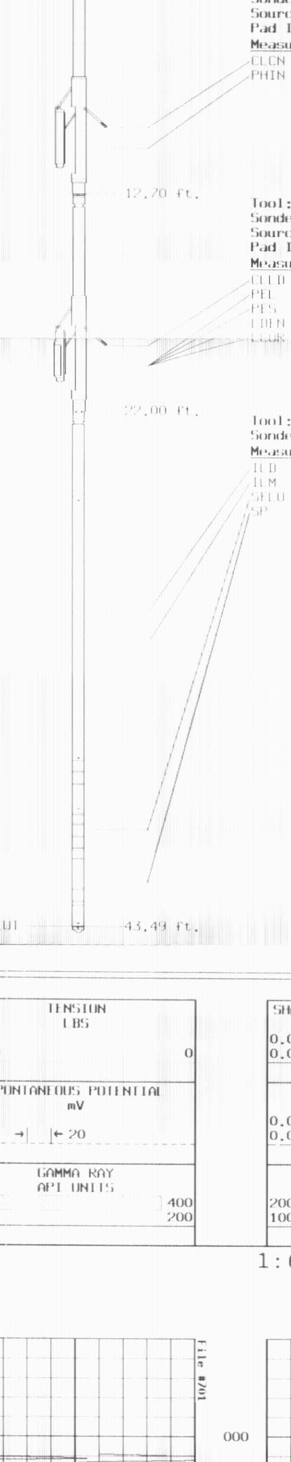
OPERATORS:

B.AUSTIN
M.BRAKE

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length 43.49 Ft.
Maximum Outside diameter 4.80 in.
Net Weight in Air 243.00 lbs.



Tool Zero

Tool: GRTB Length: 3.40 Ft. O.D.: 3.60 in.
Sonde ID : GRT-AA-103
Measure Point Stack Offset Tool Offset Bottom Offset
GRP 2.00 2.00 41.49

3.40 Ft.
Tool: CNT Length: 9.30 Ft. O.D.: 4.30 in.
Sonde ID : CNP-AA-103
Source ID : N-1044
Pad ID : CNP-AA-103
Measure Point Stack Offset Tool Offset Bottom Offset
CLCN 9.40 6.00 34.09
PHIN 10.24 6.84 33.25

12.70 Ft.
Tool: LDTNG Length: 9.30 Ft. O.D.: 4.80 in.
Sonde ID : LDP-NG-35
Source ID : CSV587
Pad ID : LDP-NG-35
Measure Point Stack Offset Tool Offset Bottom Offset
CLLD 10.70 4.00 24.70
PE 19.70 7.00 21.79
PES 20.10 7.40 21.39
LDEN 19.70 7.00 21.79
CAL 14.70 2.00 24.79

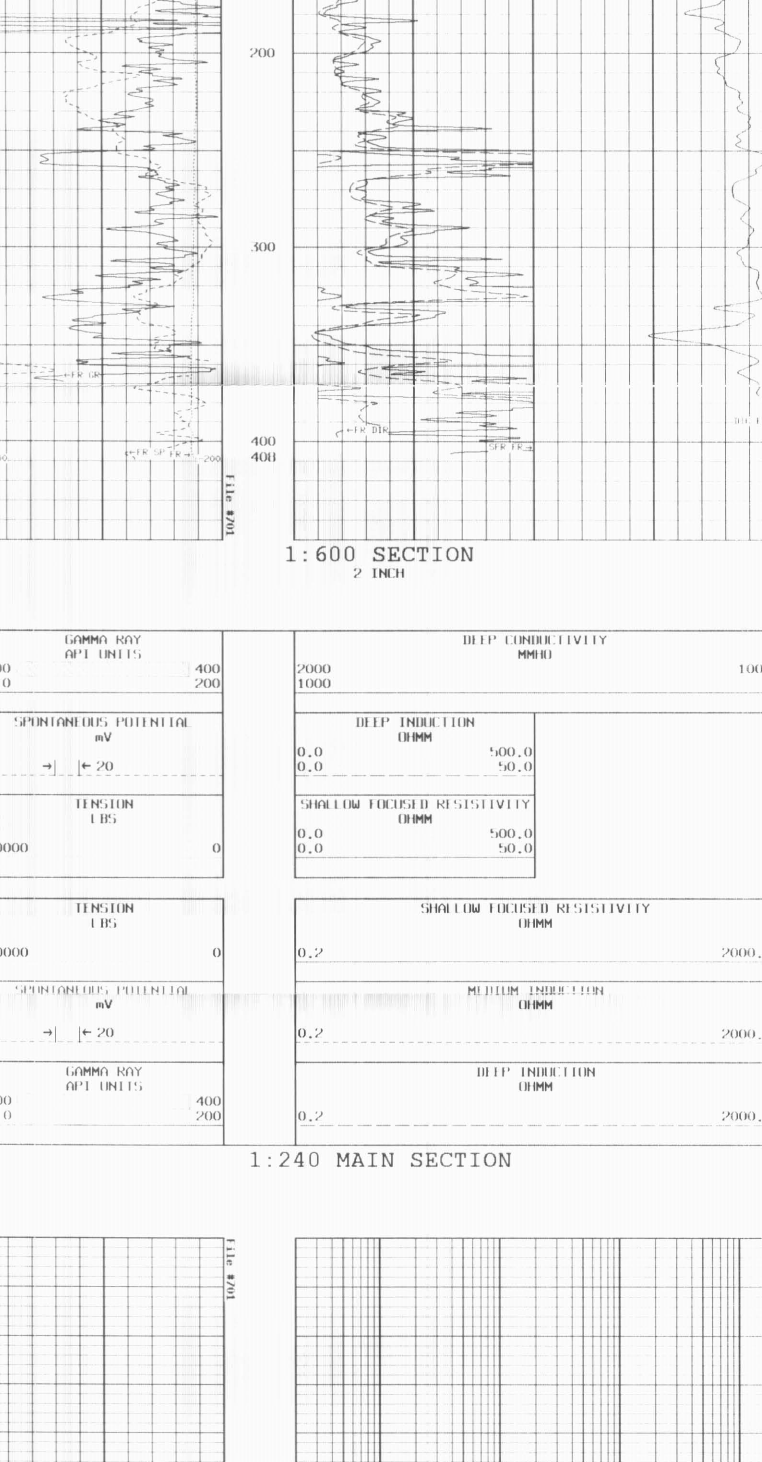
22.00 Ft.
Tool: PIT Length: 21.49 Ft. O.D.: 3.60 in.
Sonde ID : PIT-AB-18
Measure Point Stack Offset Tool Offset Bottom Offset
ILD 31.95 9.95 12.54
ILM 32.10 10.10 11.39
SFL 39.49 17.49 4.00
SP 42.49 20.49 0.00

Bot 43.49 Ft.

TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.0 500.0 / 0.0 50.0
SPONTANEOUS POTENTIAL mV	DEEP INDUCTION OHMM
← 20	0.0 500.0 / 0.0 50.0
GAMMA RAY API UNITS	DEEP CONDUCTIVITY MMHO
200 400 / 0 200	2000 1000 / 1000 0

1:600 SECTION

2 INCH



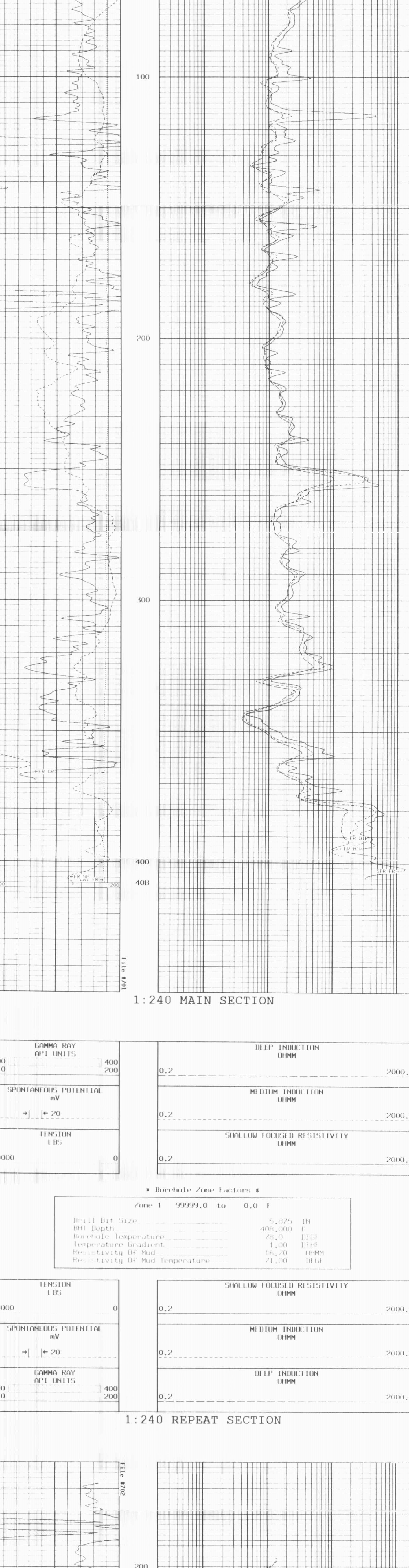
1:600 SECTION

2 INCH

GAMMA RAY API UNITS	DEEP CONDUCTIVITY MMHO
200 400 / 0 200	2000 1000 / 1000 0
SPONTANEOUS POTENTIAL mV	DEEP INDUCTION OHMM
← 20	0.0 500.0 / 0.0 50.0
TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.0 500.0 / 0.0 50.0

TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.2 2000.0
SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM
← 20	0.2 2000.0
GAMMA RAY API UNITS	DEEP INDUCTION OHMM
200 400 / 0 200	0.2 2000.0

1:240 MAIN SECTION



1:240 MAIN SECTION

GAMMA RAY API UNITS	DEEP INDUCTION OHMM
200 400 / 0 200	0.2 2000.0
SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM
← 20	0.2 2000.0
TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.2 2000.0

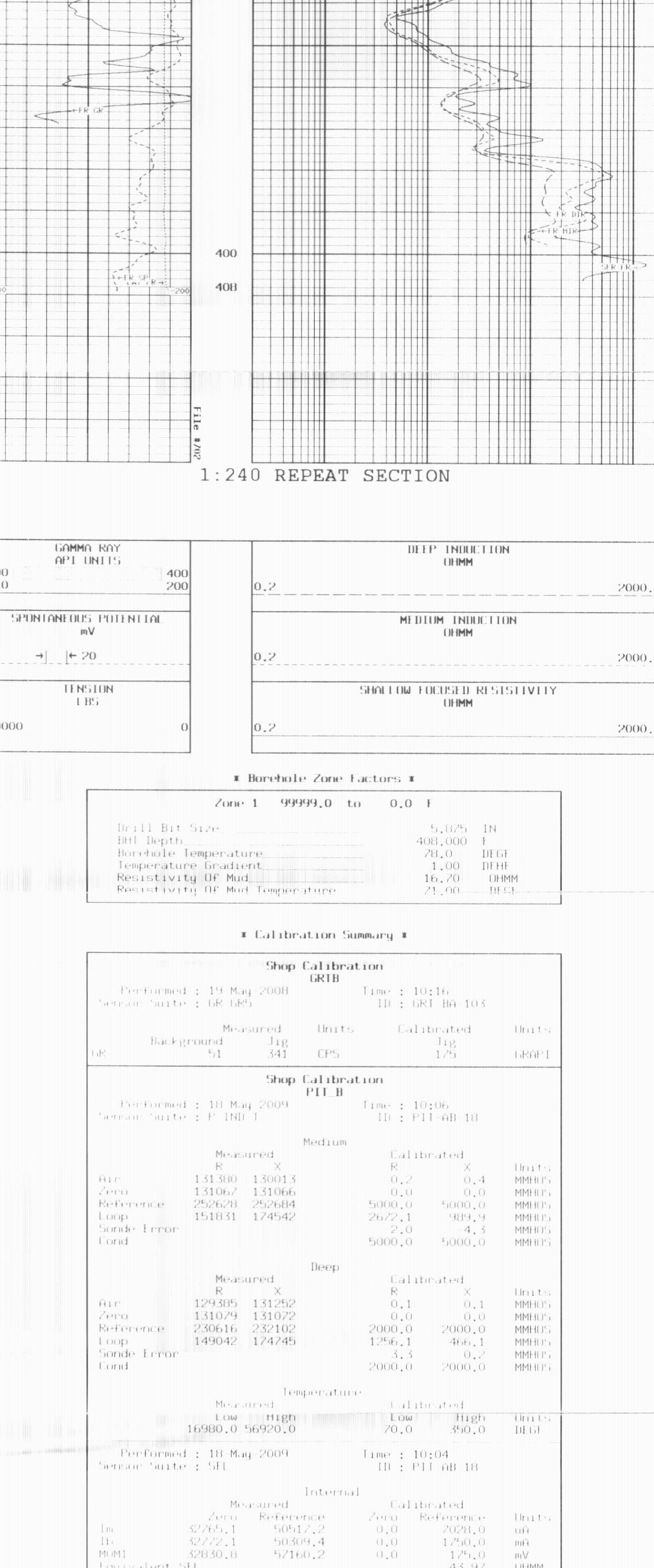
* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	5.625	IN
BHT Depth	400.000	F
Borehole Temperature	78.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	16.70	OHMM
Resistivity Of Mud Temperature	71.00	DEGF

TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.2 2000.0
SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM
← 20	0.2 2000.0
GAMMA RAY API UNITS	DEEP INDUCTION OHMM
200 400 / 0 200	0.2 2000.0

1:240 REPEAT SECTION



1:240 REPEAT SECTION

GAMMA RAY API UNITS	DEEP INDUCTION OHMM
200 400 / 0 200	0.2 2000.0
SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM
← 20	0.2 2000.0
TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
10000 0	0.2 2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Drill Bit Size	5.625	IN
BHT Depth	400.000	F
Borehole Temperature	78.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	16.70	OHMM
Resistivity Of Mud Temperature	71.00	DEGF

* Calibration Summary *

Shop Calibration
GRTB

Performed : 19 May 2009 Time : 10:16
Sensor Suite : GR-105 ID : GRT-AA-103

	Measured	Units	Calibrated	Units
Background	51		0	
Jig	341	CPS	175	GAPI

Shop Calibration
PIT_B

Performed : 18 May 2009 Time : 10:06
Sensor Suite : PIT-B-1 ID : PIT-AB-18

Medium

	Measured R	X	Calibrated R	X	Units
Air	131806	130013	0.2	0.4	MMHO
Zero	131067	131066	0.0	0.0	MMHO
Reference	252630	252604	5000.0	5000.0	MMHO
Loop	151831	174542	262.1	909.9	MMHO
Sonde Error			2.0	4.3	MMHO
Fond			5000.0	5000.0	MMHO

Deep

	Measured R	X	Calibrated R	X	Units
Air	129895	131502	0.1	0.1	MMHO
Zero	131079	131072	0.0	0.0	MMHO
Reference	238616	232162	2000.0	2000.0	MMHO
Loop	149042	174745	126.1	466.1	MMHO
Sonde Error			3.3	0.2	MMHO
Fond			2000.0	2000.0	MMHO

Temperature

Measured Low	High	Calibrated Low	High	Units
16800.0	56920.0	70.0	250.0	DEGF

Performed : 18 May 2009 Time : 10:04
Sensor Suite : PIT ID : PIT-AB-18

Internal

	Measured Zero	Reference	Calibrated Zero	Reference	Units
Ic	5797.7	58917.7	0.0	5000.0	uA
Ir	5777.1	50394.4	0.0	150.0	uA
MON	5810.0	57160.2	0.0	125.0	mV
Equivalent SFL				43.97	OHMM

Performed : 18 May 2009 Time : 09:50
Sensor Suite : PIT-SP ID : PIT-AB-18

Internal

Measured Zero	Reference	Calibrated Zero	Reference	Units
5790.5	58880.2	0.0	1000.0	mV

Performed : 29 Dec 2007 Time : 13:53
Sensor Suite : PIT-MSD

Internal

	Measured Zero	Reference	Calibrated Zero	Reference	Units
Rho	0.0	270.4	0.0	290.6	mA
Rho	0.0	190.0	0.0	290.6	mV
Equivalent Rho				0.9817	OHMM

TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM
SPONTANEOUS POTENTIAL mV	DEEP INDUCTION OHMM
GAMMA RAY API UNITS	DEEP CONDUCTIVITY MMHO

1:1200 SECTION

1:1200 SECTION

GAMMA RAY API UNITS	DEEP CONDUCTIVITY MMHO
SPONTANEOUS POTENTIAL mV	DEEP INDUCTION OHMM
TENSION LBS	SHALLOW FOCUSED RESISTIVITY OHMM