21- 22662

Tucker WIRELINE SERVICES

COMPENSATED NEUTRON
PEL DENSITY LOG

RECEIVED OCT 03 2011 Mo Oil & Gas Council 9/7/12

Company	RUNNING FOXES PETROLEUM,
Well	EMMERSON 5-6A-3
Field	
County	VERNON
State	MISSOURI
Country	USA
API No.	

File No	: TUL-56777
Company	: RUNNING FOXES PETROLEUM, INC
Well	: EMMERSON 5-6A-3
Field	:
County	: VERNON
State	: MISSOURI
Country	: USA
API No	:

Location : 1780' FNL & 870' FWL

LSD : Sect : 6 Twp : 36N Rge : 33W

		Elevations:	Services:
Permanent Datum:	GL	KB 0.00 Ft	CNT
Drilling Measured From:	GL	DF 0.00 Ft	LDT
Log Measured From:	GL	GL 880.00 Ft	PIT
Above Permanent Datum:	0.00 Ft		

Date	2011-07-11			
Run Number	1			
Depth--Driller	448.0 Ft			
Depth--Logger	448.0 Ft			
First Reading	425.0 Ft			
Last Reading	20.0 Ft			
Casing--Driller	20.0 Ft			
Casing--Logger	20.0 Ft			
Bit Size	5.625 In			
Casing Size	7.000 In			
Hole Fluid Type	FRESH			
Density	0.0 LBS/GAL			
Fluid Loss	0.0 CC			
PH/Viscosity	0.0 / 0.0 SEC			
Sample Source	MEASURED			
RM@Measured Temp.	3.000 @ 80 F			
RMF@Measured Temp	2.400 @ 80 F			
RMC@Measured Temp.	3.600 @ 80 F			
Source RMF/RMC	CALCULATED / CALCULATED			
RM@BHT	2.664 @ 90 F			
Time Circulation Stopped	2011-07-11 07:30			
Max Recorded Temp.	90 F			
Equipment/Base	TRK 127 / TULSA			
Recorded By	B BAILEY R. AUSTIN			
Witnessed By				

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 of log data, 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 part of the charge by T. W. 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)
5.625	448.00	7.000	32.00	20.00

Run Number	1
Date	2011-07-11
Date/Time On Bottom	2011-07-11 09:45
Depth to Fluid	0.0 Ft
Salinity	0.000 PPM
RMF@BHT	2.131 @ 90 F
RMC@BHT	3.196 @ 90 F

Run Number 1

Comments

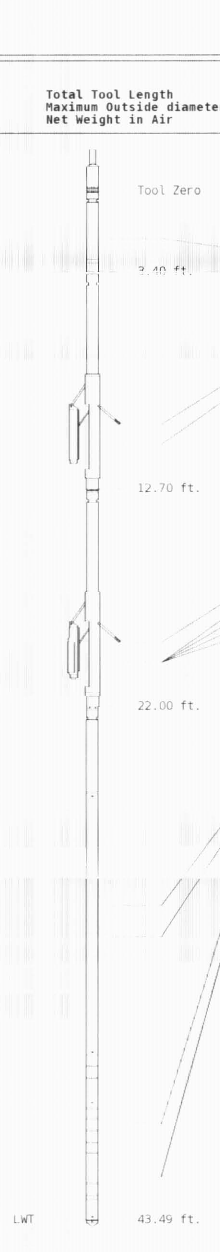
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
CALIPERS ORIENTED ON X-Y AXIS.
2.71 G/CC USED TO CALCULATED POROSITY.
ANNULAR HOLE VOLUME CALCULATED UISING 2.875' PRODUCTION CASING.

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

OPERATORS
J TORBERT
M BURKE

Tool String Schematic

Total Tool Length - 43.49 ft.
Maximum Outside diameter - 4.80 in.
Net Weight in Air - 743.00 lbs.



Tool: GRT-B Length: 3.40 ft. O.D. 3.60 in.
Gamma Ray Controller
Sonde ID :GRT-BA-14

Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	41.49

Tool: CNT-AA Length: 9.30 ft. O.D. 4.36 in.
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-AB-400
Source ID :N-1044
Pad ID :CNP-AA-116

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	34.09
PHIN	6.80	10.20	33.29

Tool: LDT-DA Length: 9.30 ft. O.D. 4.80 in.
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-465
Source ID :CSV-587
Pad ID :LDP-DA-01

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	24.79
PEL	7.00	19.70	23.79
PES	7.40	20.10	23.39
LDEN	7.20	19.90	23.59
LCOR	7.20	19.90	23.59

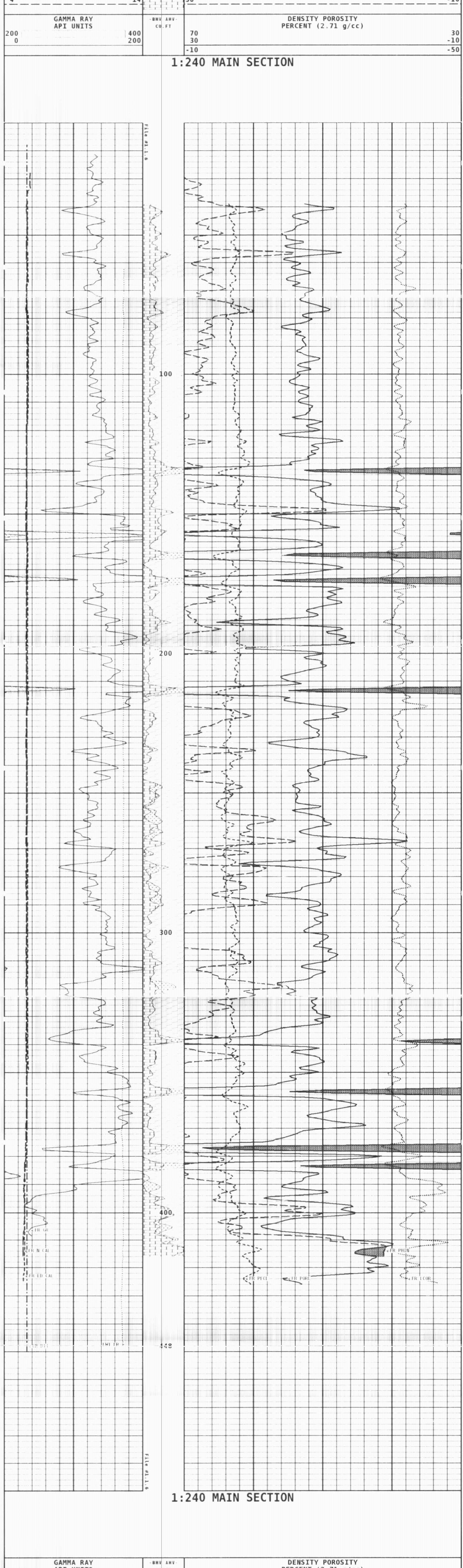
Tool: PIT-CA Length: 21.49 ft. O.D. 3.62 in.
Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-075

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	30.92	12.56
ILM	10.10	32.10	11.39
SFLU	17.49	39.49	4.00
SP	20.60	42.60	0.88

Well File: RFP_EMMERSON_5-6A-3_JUL11_STK Scale: 1:240
Segment: V1.D1.S6 Re main Acquired: 2011-07/11 09:51 3.2.0-10140
Reference: 0 Processed: 2011-07/11 10:03 3.2.0-10140

TENSION LBS 10000 0
BIT SIZE INCHES (IN) 4 14
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
GAMMA RAY API UNITS 200 400 / 0 200
Volume Dolo/Shale; Volume Quartz; Volume Calcite; BHV AHV CU.FT
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50

1:240 MAIN SECTION



1:240 MAIN SECTION

GAMMA RAY API UNITS 200 400 / 0 200
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN) 4 14
TENSION LBS 10000 0

* Borehole Zone Factors *

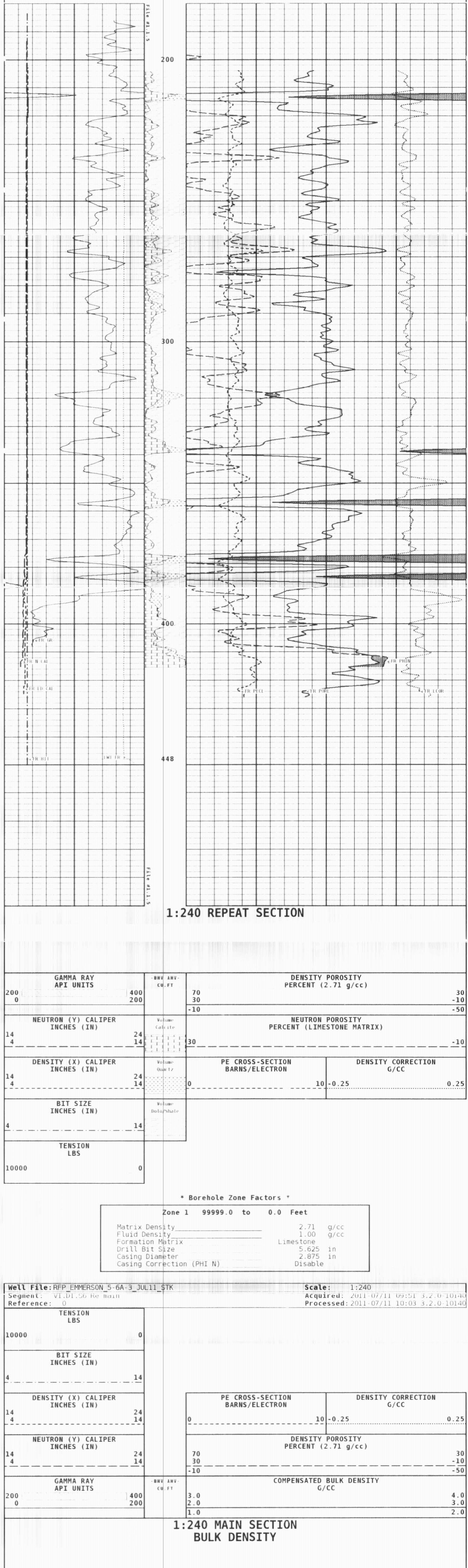
Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71 g/cc
Fluid Density	1.00 g/cc
Formation Matrix	Limestone
Drill Bit Size	5.625 in
Casing Diameter	2.875 in
Casing Correction (PHI N)	Disable

Well File: RFP_EMMERSON_5-6A-3_JUL11_STK Scale: 1:240
Segment: V1.D1.S5 Re repeat Acquired: 2011-07/11 09:41 3.2.0-10140
Reference: 0 Processed: 2011-07/11 10:02 3.2.0-10140

TENSION LBS 10000 0
BIT SIZE INCHES (IN) 4 14
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10
GAMMA RAY API UNITS 200 400 / 0 200
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50

1:240 REPEAT SECTION



1:240 REPEAT SECTION

GAMMA RAY API UNITS 200 400 / 0 200
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN) 4 14
TENSION LBS 10000 0

* Borehole Zone Factors *

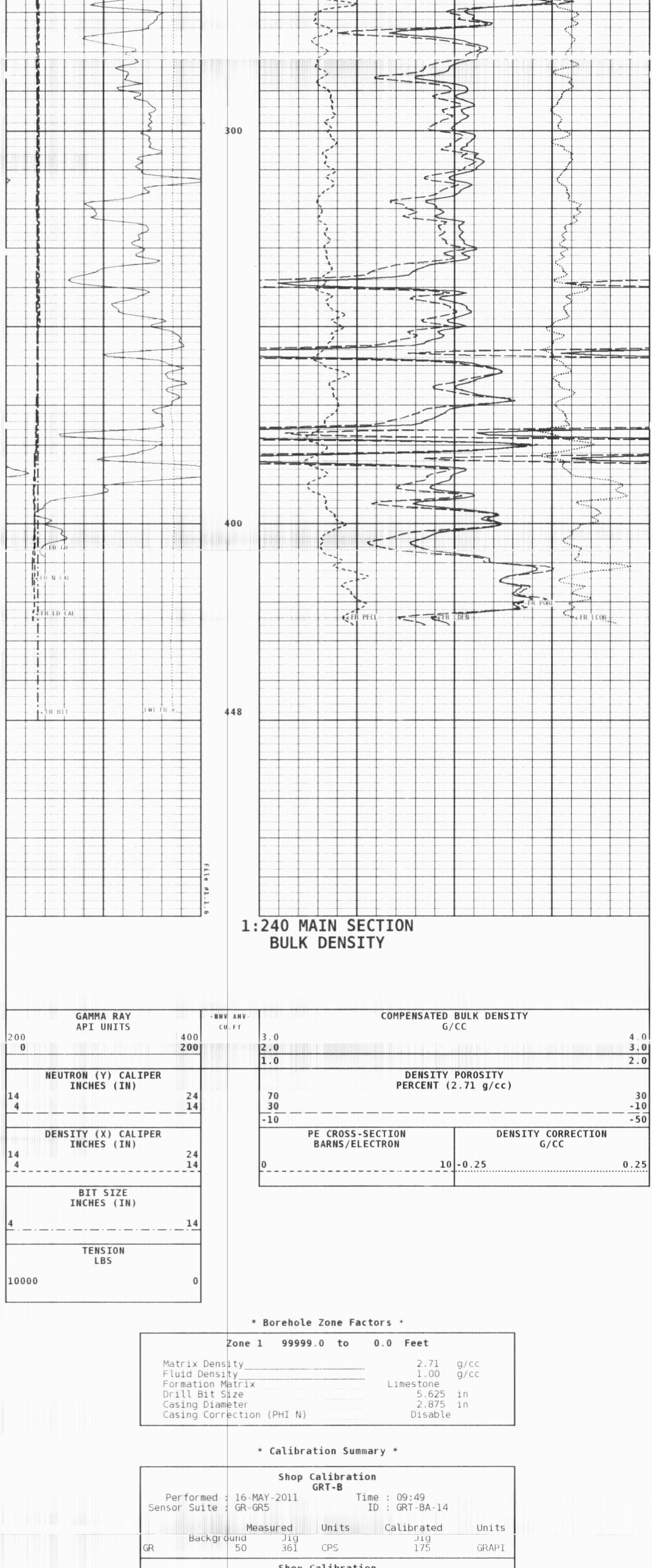
Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71 g/cc
Fluid Density	1.00 g/cc
Formation Matrix	Limestone
Drill Bit Size	5.625 in
Casing Diameter	2.875 in
Casing Correction (PHI N)	Disable

Well File: RFP_EMMERSON_5-6A-3_JUL11_STK Scale: 1:240
Segment: V1.D1.S6 Re main Acquired: 2011-07/11 09:51 3.2.0-10140
Reference: 0 Processed: 2011-07/11 10:03 3.2.0-10140

TENSION LBS 10000 0
BIT SIZE INCHES (IN) 4 14
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50
GAMMA RAY API UNITS 200 400 / 0 200
COMPENSATED BULK DENSITY G/CC 3.0 4.0 / 2.0 3.0 / 1.0 2.0

1:240 MAIN SECTION
BULK DENSITY



1:240 MAIN SECTION
BULK DENSITY

GAMMA RAY API UNITS 200 400 / 0 200
COMPENSATED BULK DENSITY G/CC 3.0 4.0 / 2.0 3.0 / 1.0 2.0
NEUTRON (Y) CALIPER INCHES (IN) 14 24 / 4 14
DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 / 30 -10 / -10 -50
DENSITY (X) CALIPER INCHES (IN) 14 24 / 4 14
PE CROSS-SECTION BARNS/ELECTRON 0 10
DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN) 4 14
TENSION LBS 10000 0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71 g/cc
Fluid Density	1.00 g/cc
Formation Matrix	Limestone
Drill Bit Size	5.625 in
Casing Diameter	2.875 in
Casing Correction (PHI N)	Disable

* Calibration Summary *

Shop Calibration GRT-B

Performed : 16-MAY-2011 Time : 09:49
Sensor Suite : GR-GR5 ID : GRT-BA-14

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	50	361	CPS	175	GRAPI

Shop Calibration CNT-AA

Performed : 21-MAR-2011 Time : 11:09
Sensor Suite : CALI-BCN ID : NDT-AB-400

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	8.7	14.7	6.0	12.0	IN.

Performed : 15-Apr-2011 Time : 11:12
Sensor Suite : BHC NEUT ID : CNP-AA-116
Source ID : N-1044

	Tank Measured	Tank Calibrated	Verification Jig	Units
N/F	3.8743	3.6893	3.7032	
Porosity	23.4	20.5	20.7	%

Shop Calibration LDT-DA

Performed : 15-MAY-2011 Time : 08:26
Sensor Suite : CALI-LTH ID : PDT-GA-465

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	6.4	12.4	6.0	12.0	IN.

Performed : 15-Apr-2011 Time : 10:15
Sensor Suite : BHCPELNG ID : LDP-DA-01
Source ID : CSV-587

Short Space

	BKGD	Al	Mg	Al+Fe	Units
LSW1	64	488	810	324	CPS
LSW2	70	561	912	408	CPS
LSW3	257	1326	2113	1129	CPS
LSW4	313	1210	1702	1070	CPS
LSW5	31	40	40	38	CPS
LSW6	77	79	79	80	CPS
LSW7	51	52	51	51	CPS
LSW8	2	2	3	2	CPS
QS	0.205	0.206	0.215	0.218	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC

Long Space

	BKGD	Al	Mg	Al+Fe	Units
LLW1	112	626	2629	396	CPS
LLW2	124	1045	4357	760	CPS
LLW3	470	1998	7382	1739	CPS
LLW4	595	1164	2951	1085	CPS
LLW5	67	72	85	72	CPS
LLW6	190	190	182	188	CPS
LLW7	122	121	115	119	CPS
LLW8	6	7	12	7	CPS
QL	0.217	0.223	0.226	0.224	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC