217-22377

Tucker
WIRELINE SERVICES

DUAL INDUCTION RESISTIVITY LOG

~~CONFIDENTIAL~~ RELEASED
until 10-22-10

File No. : TUL-54814
Company : RUNNING FOXES PETROLEUM, INC.
Well : EMMERSON #12-6B-4
Field : WILDCAT
County : VERNON
State : MISSOURI
Country : U.S.A.

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

Location : PERMIT # 22377
2180' FSL & 630' FWL

Sect : 06 Twp : 36N Rge : 33W

Recorded By : R. FRANKLIN
Witnessed By : G. BRATTON

Date : JUL 09 2009
Run No. : 1

Permanent Datum : GL
Drilling Measured From : GL
Log Measured From: GL
Above Permanent Datum : 0.00 FT

Depth--Driller : 408.0 FT
Depth--Logger : 408.0 FT
Bottom Log Interval : 407.0 FT
Top Log Interval : 20.0 FT

Casing Depth--Driller: 20.0 FT
Casing Depth--Logger : 20.0 FT
Casing Diameter : 8.625 IN

Bit Size 5.875 IN
Unit No. : 123
Location : TULSA

Elevations :
KB : FT
DF : FT
GL : 870.00 FT

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 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 intepretations, conversions or recommendations as aforesaid.

Run Number 1

Depth To Fluid 0.0 FT
Fluid Type In Hole : FRESH / NATIVE
Density : 0.000 LBS/GAL
Viscosity : 0.000 SEC
pH : 0.000
Fluid Loss : 0.000 CC
Salinity : 0.000

RM Source :	MEASURED			
RM :	10.000	OHMM at	85	F
RM at BHT :	11.360	OHMM at	74	F
RMF Source :	CALCULATED			
RMF :	8.500	OHMM at	85	F
RMF at BHT :	9.650	OHMM at	74	F
RMC Source :	CALCULATED			
RMC :	11.500	OHMM at	85	F
RMC at BHT :	13.060	OHMM at	74	F
Max Recorded Temp. :			74	F
Time Circulation Stopped :				
Operating Rig Time, Hrs. :			1.5	

- Source Serial Numbers -

Gamma	2991GW
Neutron	N-1046

- Sonde Serial Numbers -

GRTB	GRT-BC-41
CNT	CNP-AA-112
LDT	LDP-BA-14
PIT_B	PIT-BA-21

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
8.625	40.00	20.00

- 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 2.875" PRODUCTION CASING.

GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCOR, PECL, CLLDIN, LDEN, PORLLS.
PIT: ILD, ILM, CIRD, SFLAEC, SPU

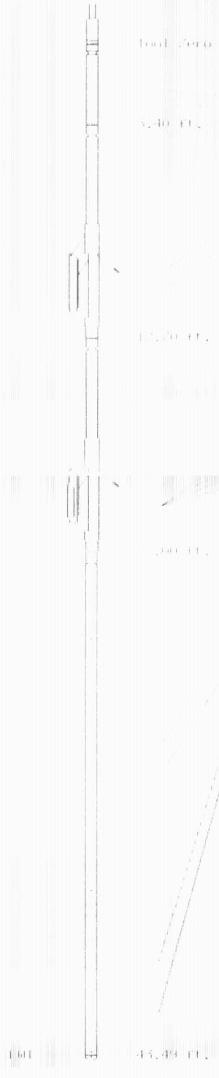
OPERATORS:

S. DAVIS
J. COLWILL

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length	45.49 Ft.
Maximum Outside diameter	4.80 in.
Net Weight in Air	745.00 lbs.



Tool: GRTB **Length:** 5,40 Ft. **O.D.:** 3,63 in.
Sonde ID : GRT-BB-41

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2,00	2,00	41,49

Tool: CNT **Length:** 9,30 Ft. **O.D.:** 3,56 in.
Sonde ID : CNP-BB-112
Source ID : N-1046
Pad ID : CNP-BB-112

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLB	9,40	4,00	34,09
CNDB	10,54	5,14	32,95

Tool: CDT **Length:** 9,30 Ft. **O.D.:** 4,00 in.
Sonde ID : CDP-BB-14
Source ID : 2991GM
Pad ID : CDP-BB-14

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18,70	4,00	24,79
PE	19,94	5,24	23,55
PES	19,94	5,24	23,55
CDCD	19,94	5,24	23,55
CDDS	19,94	5,24	23,55

Tool: DLL **Length:** 19,49 Ft. **O.D.:** 3,62 in.
Sonde ID : DLL-BB-21

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30,93	6,93	12,56
ILM	32,10	8,10	11,39
SFLU	39,49	15,49	4,00
SP	42,60	18,60	0,89

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

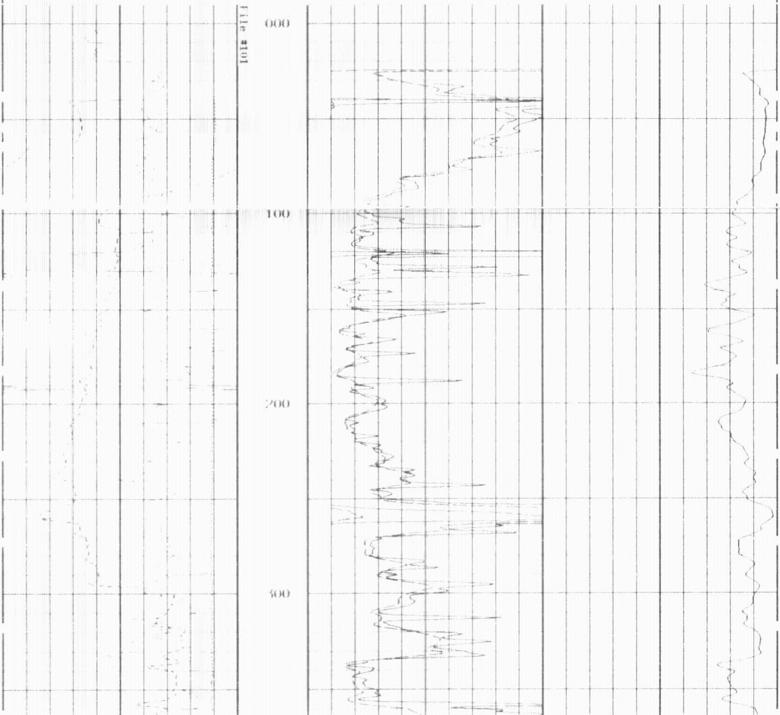
GAMMA RAY
API UNITS
200 400
0 200

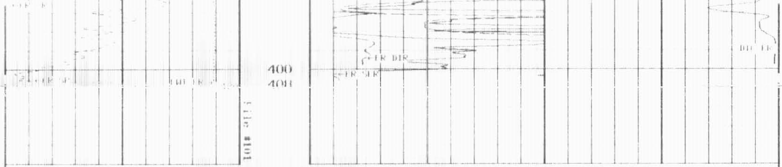
SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

1:600 SECTION





1:600 SECTION

GAMMA RAY
API UNITS
200 400
0 200

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

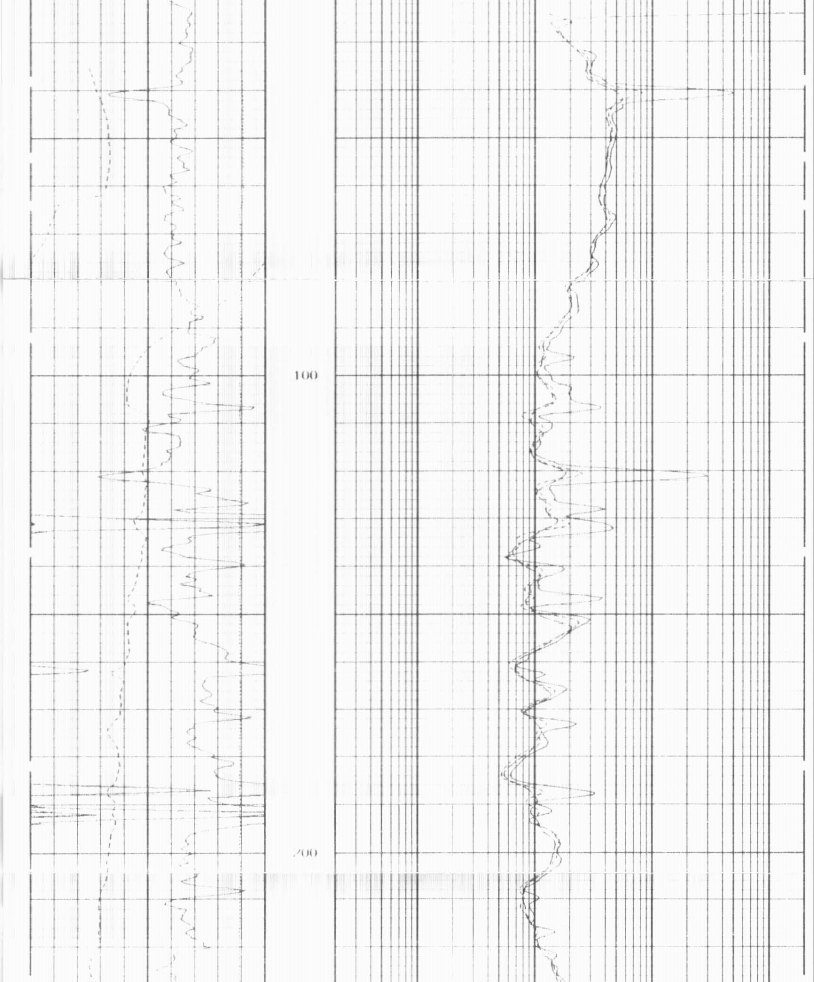
SPONTANEOUS POTENTIAL
mV
→| |← 20

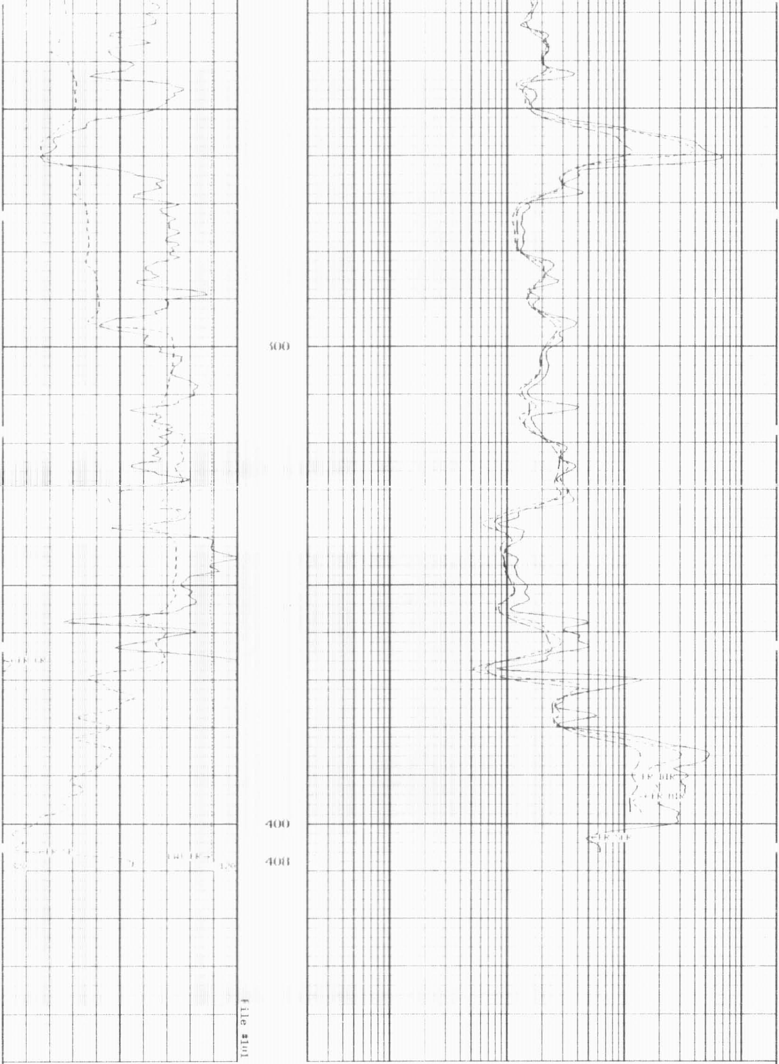
MEDIUM INDUCTION
OHMM
0.2 2000.0

GAMMA RAY
API UNITS
200 400
0 200

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 MAIN SECTION





1:240 MAIN SECTION

GAMMA RAY
API UNITS
200 400
0 200

DEEP INDUCTION
OHMM
0.2 2000.0

SPONTANEOUS POTENTIAL
mV
→| |← 20

MEDIUM INDUCTION
OHMM
0.2 2000.0

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

* Borehole Zone Factors *

Zone 1 9999.0 to 0.0 F

Drill Bit Size	5.875	IN
BHT Depth	408.000	F
Borehole Temperature	74.0	DEGF
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	10.00	OHMM
Resistivity Of Mud Temperature	85.00	DEGF

TENSION
LBS
10000 0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

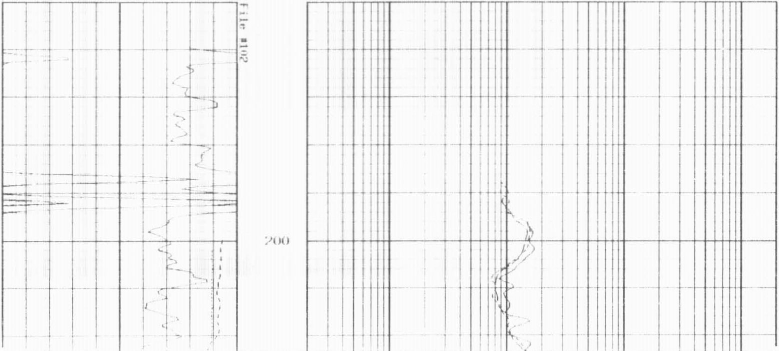
SPONTANEOUS POTENTIAL
mV
→| |← 20

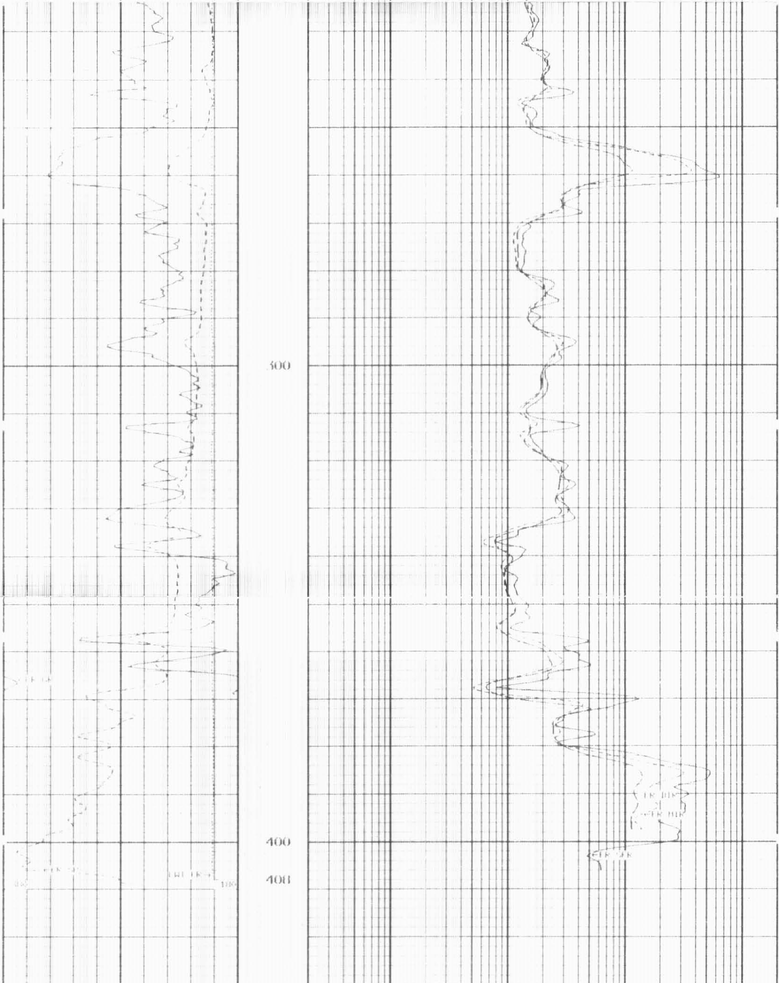
MEDIUM INDUCTION
OHMM
0.2 2000.0

GAMMA RAY
API UNITS
200 400
0 200

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 REPEAT SECTION





1:240 REPEAT SECTION

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

* Borehole Zone Factors *

Zone 1 9999.0 to 0.0 F

Drill Bit Size	5.875	IN
BHT Depth	408.000	F
Borehole Temperature	24.0	DEGF
Temperature Gradient	1.00	DEGH
Resistivity Of Mud	10.00	OHMM
Resistivity Of Mud Temperature	85.00	DEGF

* Calibration Summary *

Shop Calibration
GRTB

Performed : 24 Apr 2000 Time : 10:49
Sensor Serial : GR GRS ID : GRT B 41

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	43	332	CPS	175	GAPI

Shop Calibration
PII B

Performed : 5 May 2000 Time : 10:18
Sensor Serial : P IND 3 ID : PII BG 21

Medium

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	131728	130106	0.5	0.6	MMHOS
Zero	131067	131088	0.0	0.0	MMHOS
Reference	249885	248850	5000.0	5000.0	MMHOS
Loop	151475	173652	2698.0	998.5	MMHOS
Sonde Error			0.2	4.2	MMHOS
Cond			5000.0	5000.0	MMHOS

Deep

	Measured R	Measured X	Calibrated R	Calibrated X	Units
Air	128818	131563	0.3	0.2	MMHOS
Zero	130004	131067	0.0	0.0	MMHOS
Reference	232628	231483	2000.0	2000.0	MMHOS
Loop	140739	174966	1265.7	463.4	MMHOS
Sonde Error			3.0	0.3	MMHOS
Cond			2000.0	2000.0	MMHOS

```
                         Temperature
              Measured                      Calibrated
              Low     High                  Low        High      Units
          16880,0 56920,0                   50,0       350,0     DEGF

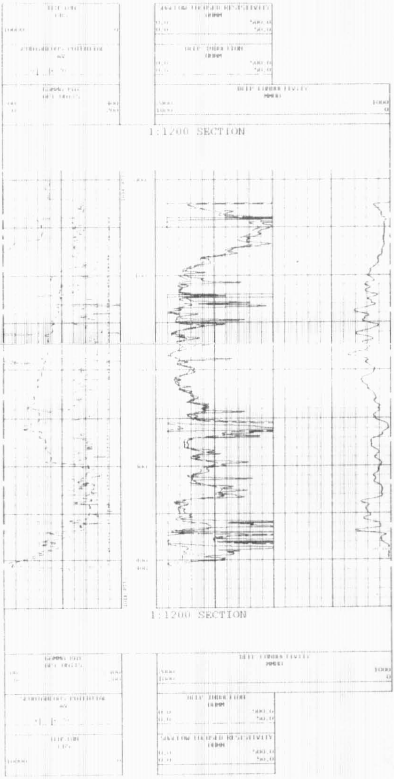
    Performed : 26 May 2009           Time : 10:15
 Sensor Cartie : SH                     ID : P11 B6 21

                          Internal
                 Measured                   Calibrated
                 Zero    Reference          Zero    Reference    Units
 Im             52709,9   50381,9           0,0       2028,0     mA
 Ib             52768,4   50824,2           0,0       1750,0     mA
 MOM1           52768,2   58061,4           0,0        175,0     mV
 Equivalent SH                                        43,92      OHMM

    Performed : 26 May 2009           Time : 10:52
 Sensor Cartie : P50                    ID : P11 B6 21

                          Internal
            Measured                        Calibrated
          Zero    Reference                 Zero    Reference    Units
        52587,2    58291,5                  0,0       1000,0     mV

    Performed : 26 May 2009           Time : 11:12
 Sensor Cartie : P EMUD                 ID : P11 B6 21

                          Internal
                 Measured                   Calibrated
                 Zero    Reference          Zero    Reference    Units
 Rmi              0,0     34857,0           0,0        290,6     mA
 Rmv              0,0     34857,0           0,0        290,6     mV
 Equivalent Rm                                        0,0871     OHMM
```