217-22420

Tucker
WIRELINE SERVICES

DUAL INDUCTION RESISTIVITY LOG

cnfl 10-22-10
~~CONFIDENTIAL~~
RELEASED

RECEIVED
OCT 22 2009
Mo Oil & Gas Council

File No. : TUL-33344
Company : RUNNING FOXES PETROLEUM, INC.
Well : EMMERSON 12-6C-INJ2
Field : WILDCAT
County : VERNON
State : MISSOURI
Country : U.S.A.

Location : PERMIT # 22420
1685' FSL & 695' FWL

Sect : 06 Twp : 36N Rge : 33W

Recorded By : C. GREEVER
Witnessed By : G. BRATTON

Date : JUL 06 2009
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	378.0	FT
Depth--Logger :	378.0	FT
Bottom Log Interval :	377.0	FT
Top Log Interval :	20.0	FT
Casing Depth--Driller:	20.0	FT
Casing Depth--Logger :	20.0	FT
Casing Diameter :	7.000	IN
Bit Size :	5.875	IN
Unit No. :	TRK 118	
Location :	TULSA	

Elevations :

KB :		FT
DF :		FT
GL :	868.00	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, 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.

Run Number 1

Depth To Fluid	0.0	FT		
Fluid Type In Hole :	NATIVE			
Density :	0.000	LBS/GAL		
Viscosity :	0.000	SEC/QT		
pH :	0.000			
Fluid Loss :	0.000	CC		
Salinity :	0.000	KPPM		
RM Source :	MEASURED			
RM :	7.000	OHMM at	78	F
RM at BHT :	7.345	OHMM at	74	F
RMF Source :	CALCULATED			
RMF :	5.950	OHMM at	78	F
RMF at BHT :	6.243	OHMM at	74	F
RMC Source :	CALCULATED			
RMC :	7.700	OHMM at	78	F
RMC at BHT :	8.080	OHMM at	74	F
Max Recorded Temp. :			74	F

Time Circulation Stopped : JUL 06 2009 @ 07:00
Operating Rig Time, Hrs. : 2.0

- Source Serial Numbers -

Gamma	317-49B
Neutron	21166B

- Sonde Serial Numbers -

GRTB	GRT-BC-43
CNT	CNP-AD-34
LDTNG	LDT-NG-002
PIT	PIT-AB-11

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	20.00

- Comments -

ALL PRESENTATIONS AS PER CLIENTS REQUEST>

GRT, CNT, LDT AND PIT RUN IN COMBINATION.
CALIPERS ORIENTED IN X-Y AXIS
2.71 G/CC USED TO CALCULATE PORSITY
PHIN IS CALIPER CORRECTED
ANNULAR HOLE VOLUME CALCULATED USING 4.5'' PRODUCTION CASING

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

OPERATORS:
J. COLWILL
L. BARTO

THANK YOU FOR USING TUCKER WIRELINE SERVICES!!!!!!!!!!!!!!!!!

Tool String Schematic

Total Tool Length [illegible] Ft.
Maximum Outside diameter 4.80 in.
Net Weight in Air 243.00 lbs.

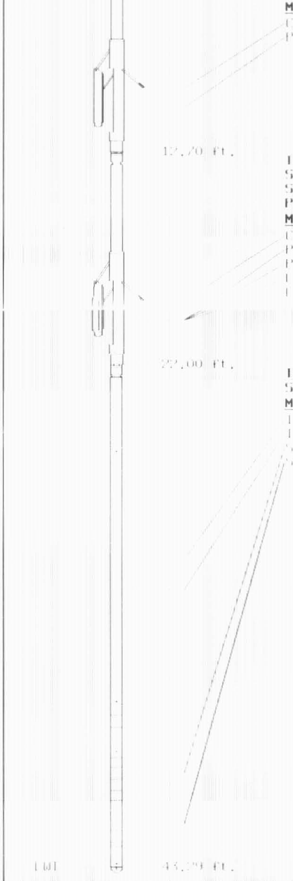
Tool Zero

Tool: GRTB **Length:** 5.40 Ft. O.D.: [illegible] in.
Sonde ID : GRT BC 43

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	[illegible]

5.40 Ft.

Tool: CNT **Length:** [illegible] Ft. O.D.: [illegible] in.
Sonde ID : CNP AD 34
Source ID : 21166B
Pad ID : CNP AD 34



Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	[illegible]
PHIN	10.24	6.84	[illegible]

Tool: LDTNG Length: 9.50 ft, O.D.: [illegible] in.
Sonde ID : LDT NG 002
Source ID : 317 49B
Pad ID : LDT NG 002

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	[illegible]
PEL	19.70	7.00	[illegible]
PES	20.10	7.40	[illegible]
LDEN	19.70	7.00	[illegible]
LCOR	19.70	7.00	[illegible]

Tool: PLI Length: 21.29 ft, O.D.: [illegible] in.
Sonde ID : PLI 6B 11

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	9.92	[illegible]
ILM	32.10	10.10	[illegible]
SFLU	39.49	17.49	[illegible]
SP	42.60	20.60	[illegible]

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

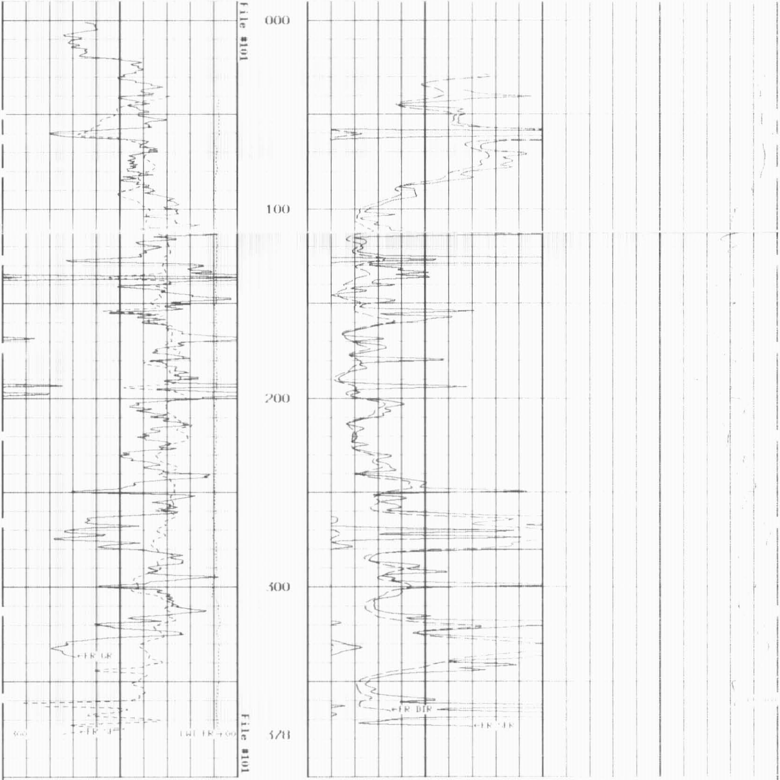
GAMMA RAY
API UNITS
200 400
0 200

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

SPONTANEOUS POTENTIAL
mV
→| |← 20

TENSION
LBS
10000 0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

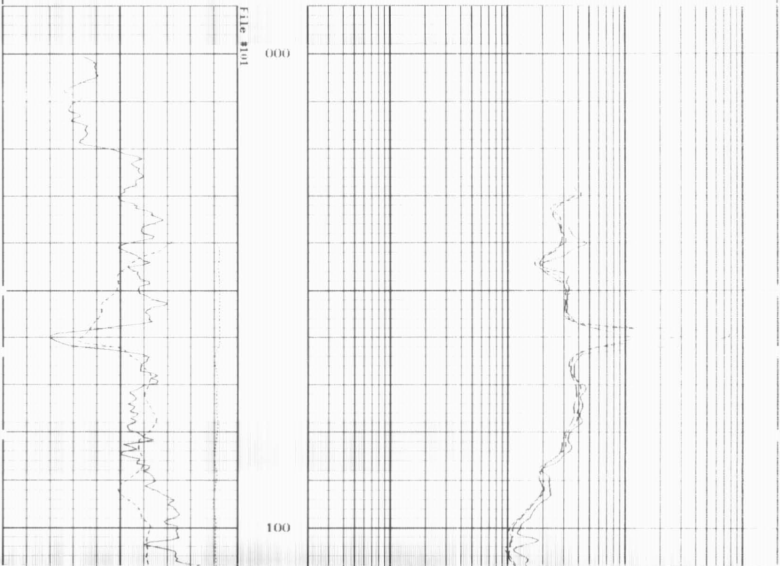
GAMMA RAY
API UNITS
200 | | 400
0 200

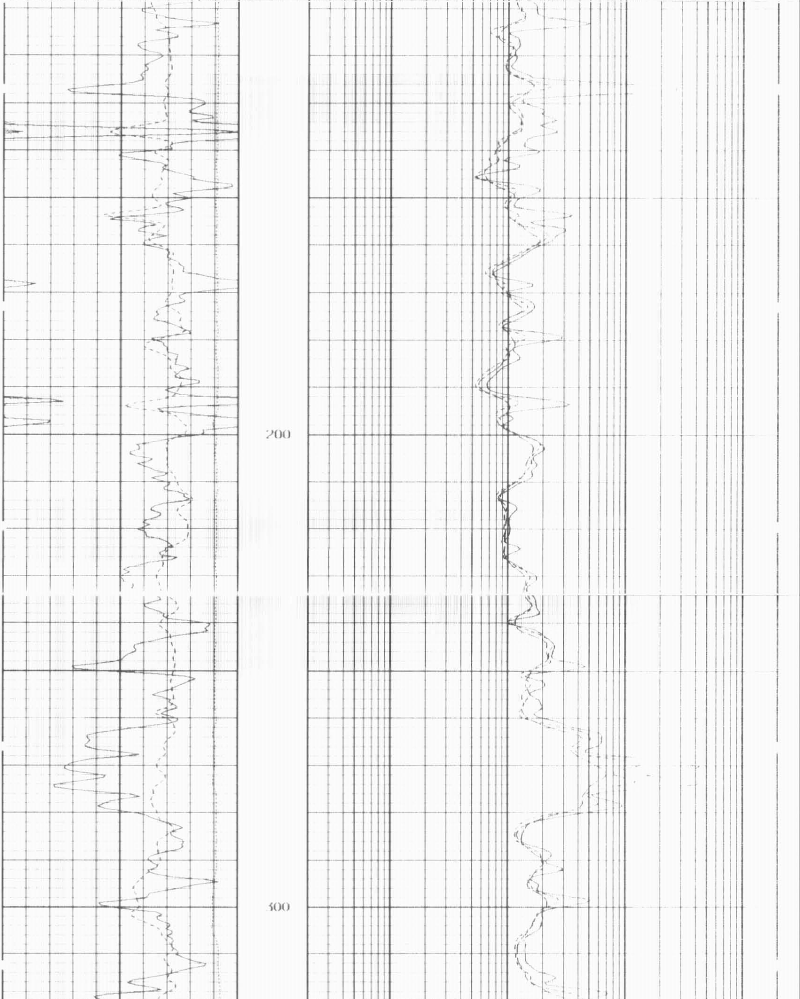
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

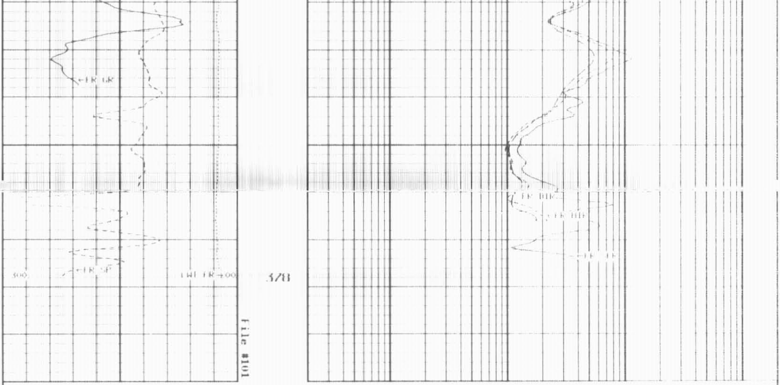
MEDIUM INDUCTION
OHMM
0.2 2000.0

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 99999.0 to 0.0 F

Drill Bit Size	5.875	IN
BHT Depth	328.000	F
Borehole Temperature	24.0	DEGC
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	2.00	OHMM
Resistivity Of Mud Temperature	23.00	DEGC

TENSION LBS	
10000	0

SHALLOW FOCUSED RESISTIVITY OHMM	
0.2	2000.0

SPONTANEOUS POTENTIAL
mV

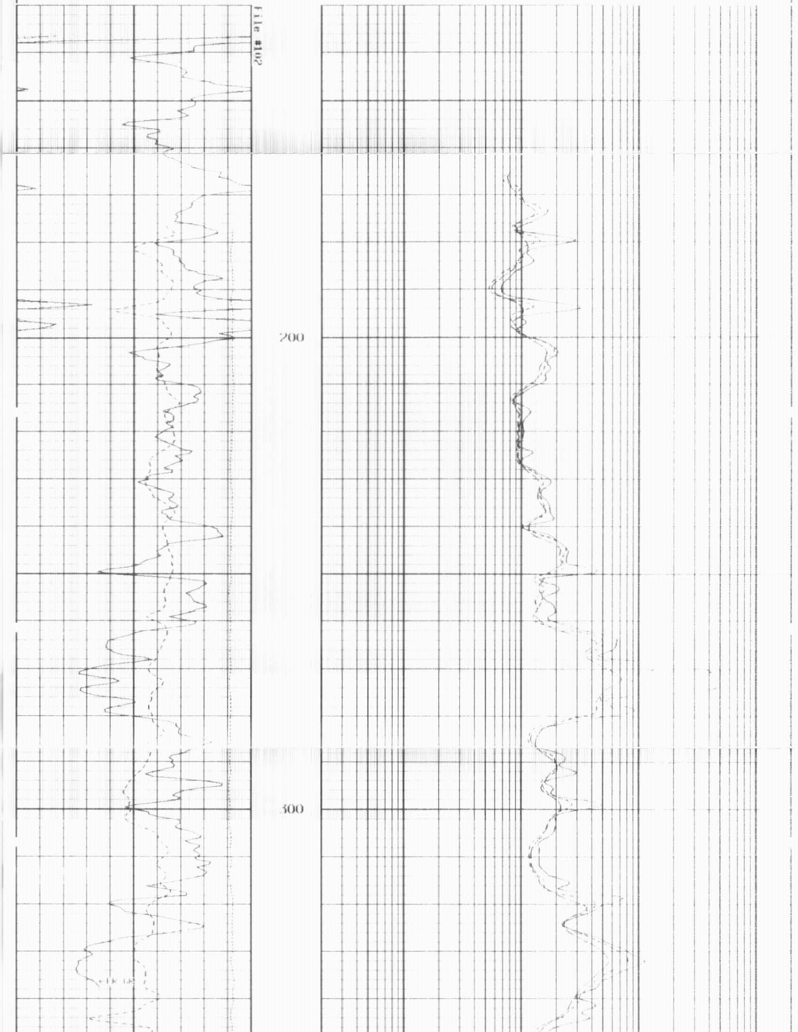
→| |← 20

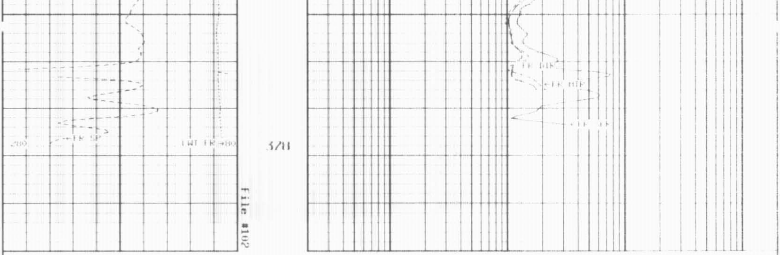
MEDIUM INDUCTION OHMM	
0.2	2000.0

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	570.000	F
Borehole Temperature	24.0	DEGC
Temperature Gradient	1.00	DEGF
Resistivity Of Mud	2.00	OHMM
Resistivity Of Mud Temperature	23.00	DEGC

* Calibration Summary *

Shop Calibration
GRTB

Performed : 24 Apr 2008 Time : 10:19
Sensor Sonde : GR GR5 ID : GRT BL 45

	Measured		Units	Calibrated	Unit
	background	jig		jig	
GR	41	314	CPS	175	GAPI

Shop Calibration
PTI

Performed : 22 May 2009 Time : 10:40
Sensor Sonde : F IND 1 ID : PTI 6B 11

Medium

	Measured		Calibrated		
	R	X	R	X	Unit
Air	131378	129999	0.2	0.1	OHMM
Zero	131066	131070	0.0	0.0	OHMM
Reference	251088	249726	5000.0	5000.0	OHMM
Loop	152000	173857	2207.1	988.7	OHMM
Sonde Error			0.8	57.8	OHMM
Total			5000.0	5000.0	OHMM

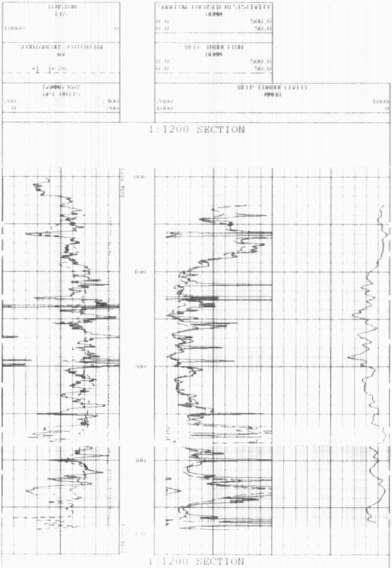
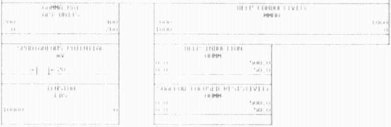
```
                              Deep
                Measured                      Calibrated
                R          X                  R            X          Unit
Air             128187   132567               0.2          0.5        MMHO
Zero            131080   131073               0.0          0.0        MMHO
Reference       235483   234973            2000.0       2000.0        MMHO
Loop            149010   137237            1260.3        461.7        MMHO
Sonde Error                                  10.0         50.0        MMHO
Cond                                       2000.0       2000.0        MMHO

                          Temperature
                Measured                      Calibrated
                Low      High                 Low          High       Unit
             16980.0 56920.0                 20.0        250.0        DEGC

   Performed : 22 May 2009                Time : 10:55
Sensor Suite : SFL                          ID : FII AB 11

                            Internal
                  Measured                    Calibrated
                Zero     Reference            Zero     Reference      Unit
Im             32760.4     49652.3            0.0        2035.0       mA
Ib             32776.0     48848.4            0.0        1750.0       mA
MOM1           32798.6     57216.8            0.0         125.0       mV
Equivalent Rt                                              45.5       OHMM

   Performed : 22 May 2009                Time : 10:55
Sensor Suite : FSP                          ID : FII AB 11

                            Internal
              Measured                        Calibrated
           Zero     Reference                 Zero     Reference      Unit
         32790.8      58980.0                 0.0        1000.0       mV
```