OGC #2041 GO 2965

RELEASED

Schlumberger FINAL PRINT

COMPENSATED NEUTRON-LITHO-DENSITY

COMPANY	THE STONE PETROLEUM CORPORATION
WELL	WILLIAM THIEMAN #1
FIELD	MILTON PROSPECT
COUNTY	ATCHISON
STATE	MISSOURI
LOCATION	2140' FNL & 2140' FWL
API SERIAL NO.	20041
SECT.	21
TWP.	64 N
RANGE	39 W
Other Services	DIL SLS GR; DCBHC GR; LDL CNL GR; ML; CYBERLOOK
Permanent Datum	GROUND LEVEL
Elev.	1074.0 F
Log Measured From	KELLY BUSHING 6.0 F above Perm. Datum
Drilling Measured From	KELLY BUSHING
Elev.: K.B.	1080.0 F
D.F.	1078.0 F
G.L.	1074.0 F
Date	15-JAN-89
Run No.	ONE
Depth Driller	4008.0 F
Depth Logger (Schl.)	4005.0 F
Btm. Log Interval	4002.0 F
Top Log Interval	372.0 F
Casing-Driller	8 5/8 @ 372.0 F
Casing-Logger	380.0 F
Bit Size	12 1/4" / 7 7/8"
Type Fluid in Hole	CHEMICAL DRISPAC
Dens. / Visc.	9.20 LB/G / 36.0 S
pH / Fluid Loss	9.5 / 8.4 C3
Source of Sample	FLOWLINE
Rm @ Meas. Temp.	1.85 OHMM @ 62.0 DEGF
Rmf @ Meas. Temp.	1.42 OHMM @ 63.0 DEGF
Rmc @ Meas. Temp.	2.04 OHMM @ 63.0 DEGF
Source: Rmf / Rmc	MEASURED / CALCULATED
Rm @ BHT	1.207 OHMM @ 97.0 DEGF
Time Circulation Ended	12:00 1/16
Time Logger on Bottom	02:26 1/16
Max. Rec. Temp.	97.0 DEGF
Equip. / Location	8385 / GREAT BEND
Recorded By	PETER VOLT
Witnessed By	RD EILE

The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE		
Service Order No.	554336		
Drilling Fluid Level			
Salinity	500.0 PPM		
Rmf @ BHT	.959 OHMM	@ 97.0 DEGF	@
Rmc @ BHT	1.368 OHMM	@ 97.0 DEGF	@
Logging Speed	1800.0 F/HR		
EQUIPMENT DATA			
Tool Number 1	DRS B 3813		
Tool Number 2	NSC D 1917		
Tool Number 3	PDH L 2869		
Tool Number 4	PGD D 2865		
Tool Number 5	CNC HA 374		
Tool Number 6	CNH A 3412		
Tool Number 7	CNB AB 3374		
Tool Number 8	SGC SA 378		
Tool Number 9	SGD TAB 2363		
Tool Number 10	PCC HA 138		
Tool Number 11	PCM 1 113		
Tool Number 12	TCM AB 1024		

REMARKS:

MICROLOG RAN IN COMBINATION WITH CNL-L

500 PPM CHLORIDES FROM MUD REPORT

SONDE ECCENTRALIZED, BOWSPRING USED ON

AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 16-JAN-1989 04:52
PROGRAM FILE: GTS (VERSION 32.2 88/12/01 88/11/16)

CNTH TOOL CHECK

INPUT	BEFORE JIG	AFTER JIG
CNTC	2939.42	2944.15
CFTC	1226.34	1225.55

CHANGE IN THERMAL POROSITY AT 20 PU IS .077 PU

LDTC TOOL CHECK

DENSITY RESISTIVITY SONDE NUMBER : 3813
NUCLEAR SERVICE CARTRIDGE NUMBER : 1917
POWERED DETECTOR HOUSING NUMBER : 2869
POWERED GAMMA-GAMMA DETECTOR NUMBER : 2865
LDT LOGGING SOURCE NUMBER : 7006
LDT CALIBRATION MODE : WATE

	MEASURED BACKGROUND BEFORE	AFTER	UNITS	TOLERANCE ON BEFORE-AFTER
LL	18.2	18.2	CPS	+/- 1.0
LS	53.4	53.6	CPS	+/- 1.0
LITH	5.1	5.2	CPS	+/- 0.3
SS1	14.1	14.1	CPS	+/- 0.5
SS2	9.7	9.6	CPS	+/- 0.5

HV SETTINGS
HV LS: 1805.6 V
HV SS: 1985.9 V

BKGD BKGD

PCDB TOOL CHECK

	ZERO BEFORE	ZERO AFTER	PLUS BEFORE	PLUS AFTER	UNITS
MINV	0.0	0.0	5.0	5.0	OHMM
MNOR	0.0	0.0	5.0	5.0	OHMM

BEFORE SURVEY: ZERO: 16-JAN-1989 02:36 PLUS: 16-JAN-1989 02:37
AFTER SURVEY CHECK: ZERO: 16-JAN-1989 04:50 PLUS: 16-JAN-1989 04:50

CP 32.2 FILE 12 16-JAN-1989 04:51

EVENT MARK SUMMARY:

OUTPUT INTERVAL BETWEEN PIPS DEPTH TRACK EDGE

IHV 10.0000 F3 LEFT EDGE

CEMENT VOLUME = 784.920 F3 (ASSUMING 5.50000 IN O.D. CASING)
HOLE VOLUME = 1864.33 F3
FROM 4005.0 TO 372.0 FEET

CHANGED PARAMETERS

NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)
WMUD	9.20000	LB/G	3912.5				

REPEAT SECTION

CP 32.2 FILE 9 16-JAN-1989 02:39

SENSOR MEASURE POINT TO TOOL ZERO

SA	42.3	FEET	GR	49.5	FEET
SPCD	42.3	FEET	LA	42.3	FEET
CNTC	22.7	FEET	CFTC	23.2	FEET
LL	2.6	FEET	LITH	2.6	FEET
LU	2.6	FEET	LS	2.6	FEET
SS1	2.1	FEET	PARI	2.1	FEET
FLS	2.1	FEET	SS2	2.1	FEET
SEQ	2.1	FEET	FSS	2.1	FEET
TSS	2.1	FEET	TLS	2.1	FEET
TENS	-.9	FEET	CALI	2.7	FEET
MINV	42.3	FEET	MNOR	42.3	FEET
TNRA	23.7	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
WMUD	8.00000	LB/G	TD	4005.00	F
FCD	5.50000	IN	DHC	CALI	
BFM	LIQU		MDEN	2.71000	G/C3
FD	1.00000	G/C3	MATR	LIME	
HC	BS		HPDC	8	
HSCO	YES		SOCO	NO	
MCCO	NO		BSCO	NO	
FSCO	NO		MWCO	NO	
PTCO	NO		SDAT	SOCN	
MCOR	NATU		SOCN	.500000	IN
FSAL	-50000.0	PPM	ANGL	0.0	DEG
GGRD	.0100000	DF/F	BHFL	WATE	
GTSE	TEMP		SHT	80.0000	DEGF
BHT	125.000	DEGF	BS	7.87500	IN
BHS	OPEN				

BEFORE SURVEY CALIBRATION SUMMARY

PROGRAM FILE: GTS (VERSION 32.2 88/12/01 88/11/16)

SGTL DETECTOR CALIBRATION SUMMARY

	MEASURED BKGD	JIG	CALIBRATED	UNITS
GR	38	195	165	GAPI

BACK: 15-JAN-1989 22:32 JIG: 15-JAN-1989 22:48 COMP: 15-JAN-1989 22:48

CNTH DETECTOR CALIBRATION SUMMARY

NEUTRON COMPENSATED CARTRIDGE NUMBER: 374
NEUTRON SOURCE SERIAL NUMBER : 254
THERMAL HOUSING NUMBER : 3412
THERMAL CALIBRATED NEUTRON BOX : 3374

INPUT	PLUS REFERENCE COUNTS	SHOP TANK COUNTS	SHOP JIG COUNTS	BEFORE JIG COUNTS	GAIN
CNTC	6031.00	5881.09	2939.25	2939.42	1.025
CFTC	2793.00	2565.13	1254.24	1226.34	1.089
RATIO	2.159	2.293	2.343	2.397	

BACK: 15-JAN-1989 22:32 JIG: 15-JAN-1989 22:48 COMP: 03-JAN-1988 11:30

LDTC DETECTOR CALIBRATION SUMMARY

DENSITY RESISTIVITY SONDE NUMBER : 3813
NUCLEAR SERVICE CARTRIDGE NUMBER : 1917
POWERED DETECTOR HOUSING NUMBER : 2869
POWERED GAMMA-GAMMA DETECTOR NUMBER : 2865
LDT LOGGING SOURCE NUMBER : 7006
LDT CALIBRATION MODE : WATE

	MEASURED BKGD	SHOP VALUES AL+FE	AL	UNITS
LL	18.2	79.7	87.6	CPS
LU	70.3	118.3	129.7	CPS
LS	53.4	138.9	152.5	CPS
LITH	5.1	31.5	46.9	CPS
SS1	14.1	158.5	173.7	CPS
SS2	9.7	223.3	242.1	CPS

HV SETTINGS
HV LS: 1805.6 V
HV SS: 1985.9 V

BKGD: 15-JAN-1989 22:32

PCDB ELECTRONICS CALIBRATION SUMMARY

	MEASURED ZERO	PLUS	CALIBRATED ZERO	PLUS	UNITS
MINV	0.0	4.2	0.0	5.0	OHMM
MNOR	0.0	3.3	0.0	5.0	OHMM

ZERO: 16-JAN-1989 02:36 PLUS: 16-JAN-1989 02:37 COMP: 16-JAN-1989 02:37

PCDB CALIPER CALIBRATION SUMMARY

	MEASURED SMALL	LARGE	CALIBRATED SMALL	LARGE	UNITS
LA	3.34	7.8	3.24	7.8	IN
SA	0.0	0.0	0.0	0.0	IN

SMALL: 16-JAN-1989 02:36 LARGE: 16-JAN-1989 02:37 COMP: 16-JAN-1989 02:37

LDTC CALIPER CALIBRATION SUMMARY

	MEASURED SMALL	LARGE	CALIBRATED SMALL	LARGE	UNITS
CALI	7.89	12.4	8.00	12.0	IN

SMALL: 15-JAN-1989 22:50 LARGE: 15-JAN-1989 22:51 COMP: 15-JAN-1989 22:51

CP 32.2 FILE 9 16-JAN-1989 02:37

SHOP SUMMARY

PERFORMED: 03-JAN-1988 14:04
PROGRAM FILE: CCSHOP (VERSION 32.2 88/12/01 88/11/30)

CNTH DETECTOR CALIBRATION SUMMARY

NEUTRON COMPENSATED CARTRIDGE NUMBER: 374
NEUTRON SOURCE SERIAL NUMBER : 254
THERMAL HOUSING NUMBER : 3412
THERMAL CALIBRATED NEUTRON BOX : 3374

INPUT	PLUS REFERENCE COUNTS	SHOP TANK COUNTS	SHOP JIG COUNTS	GAIN
CNTC	6031.00	5881.09	2939.25	1.025
CFTC	2793.00	2565.13	1254.24	1.089
RATIO	2.159	2.293	2.343	

SHOP COUNTS TEMPERATURE AND HOUSING SIZE CORRECTED

BKGD: 03-JAN-1988 11:19 TANK: 03-JAN-1988 11:30 COMP: 03-JAN-1988 11:30

LDTC DETECTOR CALIBRATION SUMMARY

DENSITY RESISTIVITY SONDE NUMBER : 3813
NUCLEAR SERVICE CARTRIDGE NUMBER : 1917
POWERED DETECTOR HOUSING NUMBER : 2869
POWERED GAMMA-GAMMA DETECTOR NUMBER : 2865
LDT LOGGING SOURCE NUMBER : 7006
LDT CALIBRATION MODE : WATE

	MASTER BKGD	CALIBRATED AL+FE	AL	UNITS
LL	18.6	79.7	87.6	CPS
LU	70.7	118.3	129.7	CPS
LS	54.0	138.9	152.5	CPS
LITH	5.2	31.5	46.9	CPS
SS1	14.1	158.5	173.7	CPS
SS2	9.8	223.3	242.1	CPS

HV SETTINGS
HV LS: 1817.0 V
HV SS: 1958.6 V

SPECTRUM QUALITY RATIOS

	COMPUTED VALUE	NOMINAL VALUE	TOLERANCE
QRLS	.676	0.65	+/- 0.05
QRSS	.717	0.72	+/- 0.10
QRLI	.308	0.32	+/- 0.06
QLIR	1.358	1.35	+/- 0.06
QR	1.002	1.00	+/- 0.02

BKGD: 03-JAN-1988 13:25 AL: 03-JAN-1988 13:35 AL+FE: 03-JAN-1988 13:43

CP 32.2 FILE 24 03-JAN-1988 14:04

COMPANY	THE STONE PETROLEUM CORPORATION	BOHL FR	4002.0 F
WELL	WILLIAM THIEMAN #1	BOHL TD	4005.0 F
FIELD	MILTON PROSPECT	DRLR TD	4008.0 F
COUNTY	ATCHISON	Elev: KB	1080.0 F
STATE	MISSOURI	DF	1078.0 F
		GL	1074.0 F

Schlumberger

SIMULTANEOUS
COMPENSATED NEUTRON-LITHO-DENSITY