Schlumberger

COMPENSATED NEUTRON/LITHO DENSITY

FINAL PRINT

COMPANY	CONOCO, INC
WELL	BURKS
FIELD	PROPANE CAVERN
COUNTY	LAWRENCE
STATE	MISSOURI

COUNTY LAWRENCE
FIELD PROPANE CAVERN
LOCATION
WELL BURKE
COMPANY CONOCO, INC

LOCATION — Other Services:

API SERIAL NO. — SECT. — TWP. — RANGE

Permanent Datum	S.L.	Elev.	Elev.: K.B.
Log Measured From	TEE TOP	1306.1 F above Perm. Datum	D.F.
Drilling Measured From			G.L.
Date	13-SEP-1989		
Run No.	ONE		
Depth Driller			
Depth Logger (Schl.)	508.0 F		
Btm. Log Interval	338.0 F		
Top Log Interval	35.0 F		
Casing-Driller	@	6	@736.0 F
Casing-Logger			
Bit Size	E	8	
Type Fluid in Hole	FRESH WATER		
Dens. / Visc.			
pH / Fld. Loss			
Source of Sample			
Rm @ Meas. Temp.	@		@
Rmf @ Meas. Temp.	@		@
Rmc @ Meas. Temp.	@		@
Source: Rmf / Rmc			
Rm @ BHT	@		@
Circulation Ended			
Logger on Bottom			
Max. Rec. Temp.			
Equip. / Location	8256	FT SMITH, AR	
Recorded By	JEFF FORMICA		
Witnessed By	LARRY BROWNING		

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.	368977	
Drilling Fluid Level		
Salinity		
Rmf @ BHT	@	@
Rmc @ BHT	@	@
Logging Speed	1800.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	CNC-HD 1076	
Tool Number 2	CNH-AB 3169	
Tool Number 3	HLDT	
Tool Number 4	SGC-SA 303	
Tool Number 5	TCCB 231	
Tool Number 6		
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

Schlumberger — CONOCO - BURKS

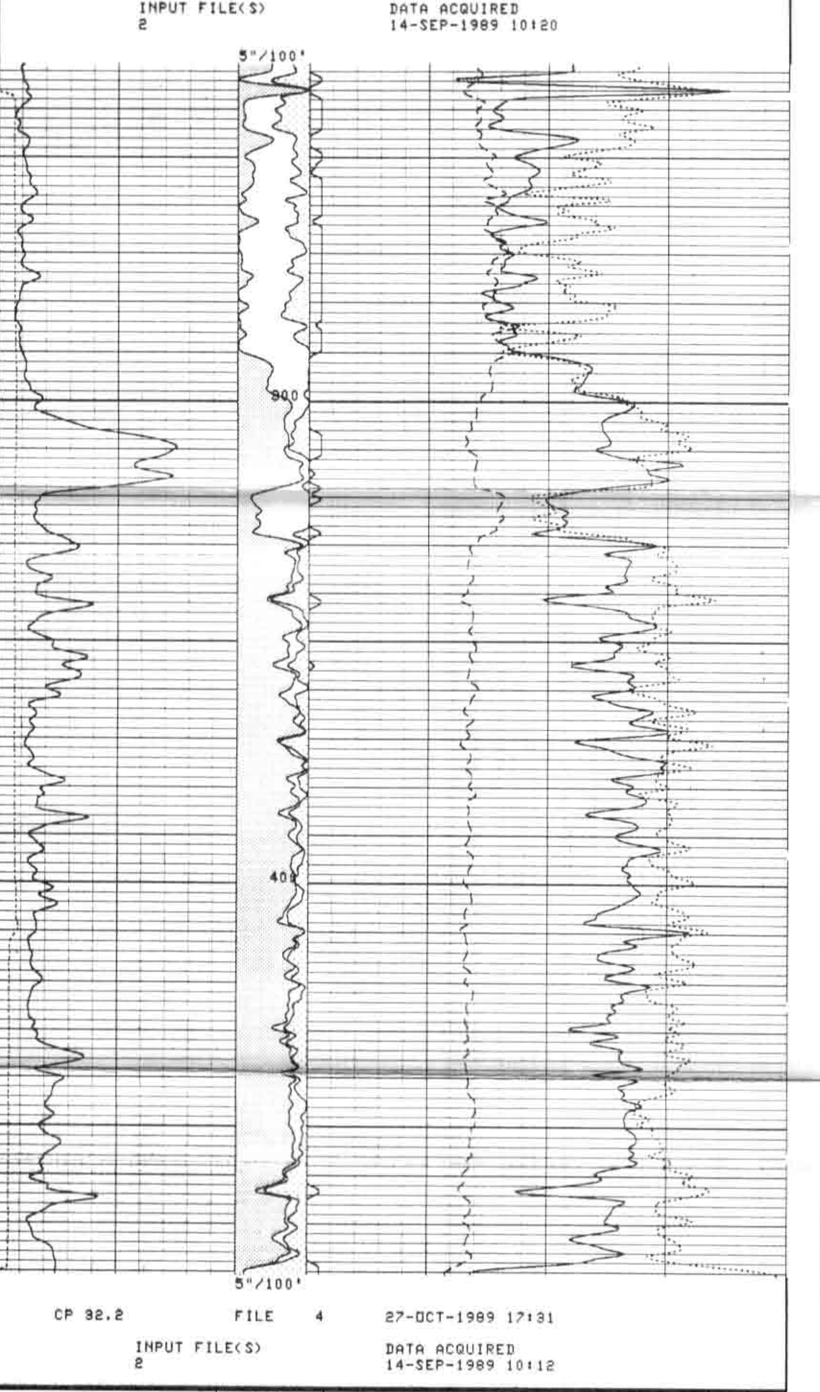
CSU Field Log

MP2: 1.0000 — 0.0
MP3: 0.0 — 1.0000
FHYD: 0.0 — 20.000
CALI(IN): 6.0000 — 16.000 | DG13(G/C3): 2.5000 — 3.0000
GR(GAPI): 150.00 — 300.00 | DG12(G/C3): 2.5000 — 3.0000
GR(GAPI): 0.0 — 150.00 | RHGA(G/C3): 2.5000 — 3.0000
GR BACKUP | PROPANE
QUARTZ
SHALE/DOL.

CP 32.2 FILE 4 27-OCT-1989 17:32

INPUT FILE(S) 2 — DATA ACQUIRED 14-SEP-1989 10:20

5"/100'



5"/100'

CP 32.2 FILE 4 27-OCT-1989 17:31

INPUT FILE(S) 2 — DATA ACQUIRED 14-SEP-1989 10:12

MP2: 1.0000 — 0.0
MP3: 0.0 — 1.0000
FHYD: 0.0 — 20.000
CALI(IN): 6.0000 — 16.000 | DG13(G/C3): 2.5000 — 3.0000
GR(GAPI): 150.00 — 300.00 | DG12(G/C3): 2.5000 — 3.0000
GR(GAPI): 0.0 — 150.00 | RHGA(G/C3): 2.5000 — 3.0000
GR BACKUP | PROPANE
QUARTZ
SHALE/DOL.

SENSOR MEASURE POINT TO TOOL ZERO

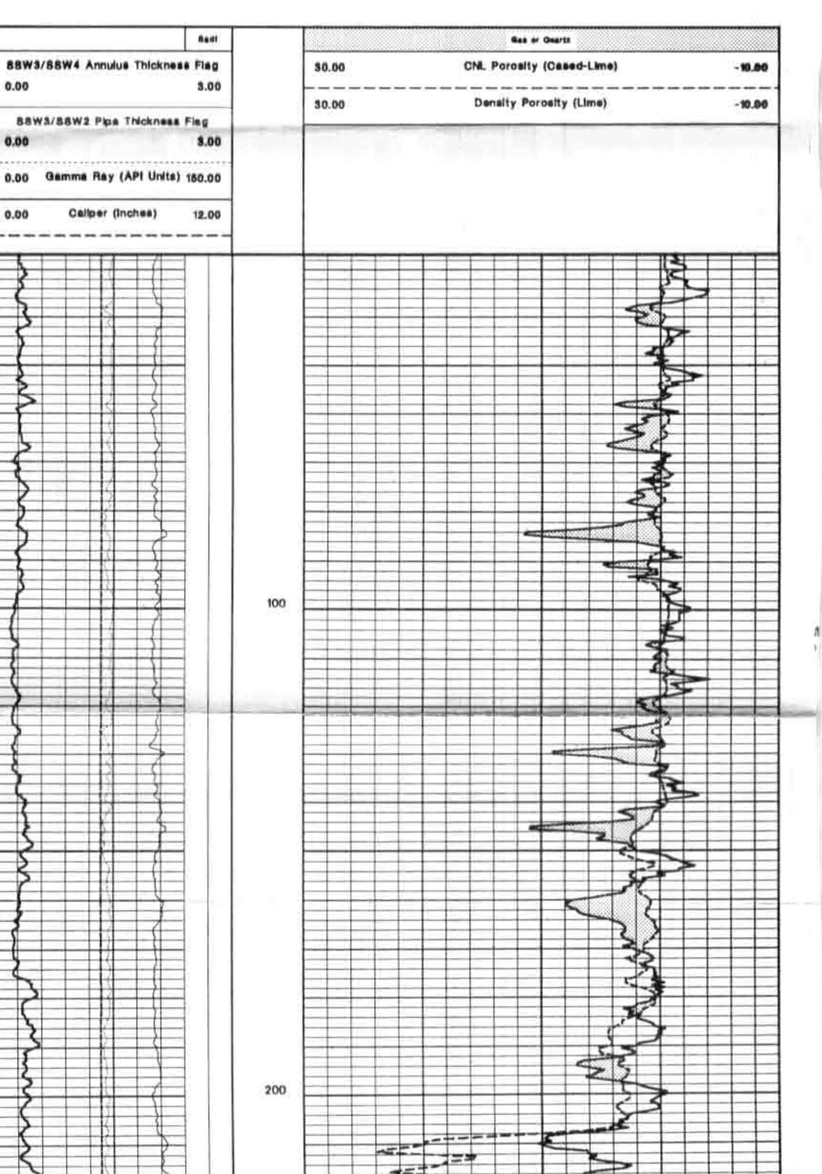
PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PP	NORM		DO	0.0	F
WMUD	8.00000	LB/G	DHC	NONE	
BFM	LIQU		MDEN	2.71000	G/C3
FD	1.00000	G/C3	FCD	0.0	IN
MATR	LIME		HC	CALI	
FRT	DISA		RG21	2.71000	
RG22	2.64400		RG23	2.87700	
RG31	2.71000		RG32	2.64400	
RG33	2.87700		UF	.398000	
UM21	13.7700		UM22	4.77900	
UM23	8.99700		UM31	13.7700	
UM32	4.77900		UM33	8.99700	
GRCL	0.0	GAPI	GRSH	200.000	GAPI
GRSE	1.00000		RTLF	DISA	
FSON	PRES		FRXO	PRES	
SINP	BOTH		NGSI	NEIT	
PMAX	.500000		NPCL	0.0	
NPSH	.500000		RWF	.0200000	OHMM
RWB	.100000	OHMM	FCAL	PRES	
POUT	LIME		FEPT	NONE	
DRUL	999.000	G/C3	GDCL	0.0	G/C3
GDSH	2.90000	G/C3	FRTC	NONE	
LSWB	ALLO		MDET	NEIT	
NLIM	.0100000		DLLM	.350000	
GULM	999.000	GAPI	FNMT	ABSE	
SDGC	DGCN		SIS	NONE	
GRSS	GR		CNPS	NPHI	
TPCN	7.20000	NS/M	TPSH	8.90000	NS/M
DMRT	10000.0	F	SWMN	.0500000	
FLDT	PRES		CSXO	.600000	
RXOS	AUTO		BS	6.00000	IN
BHS	OPEN				

FIELD RECORDING	Engineer:	Formica	Location:	3122		Cyberpack Version:		32.2	
COMPUTATION	Analyst:	Schaul	Center:	MADCC		Baseline:		18.0	
MUD MEASUREMENT	RM= 0.00 at 0.00 DEGF		RMF= 0.00 at 0.00 DEGF			BHT= 0.00		Bit Size =	6.00

Remarks:
Density Porosity functioned for casing.
-
-
-

Radi | Gas or Quartz
SSW3/SSW4 Annulus Thickness Flag: 0.00 — 3.00 | CNL Porosity (Cased-Lime): 30.00 — -10.00
SSW3/SSW2 Pipe Thickness Flag: 0.00 — 3.00 | Density Porosity (Lime): 30.00 — -10.00
0.00 Gamma Ray (API Units) 150.00
0.00 Caliper (Inches) 12.00

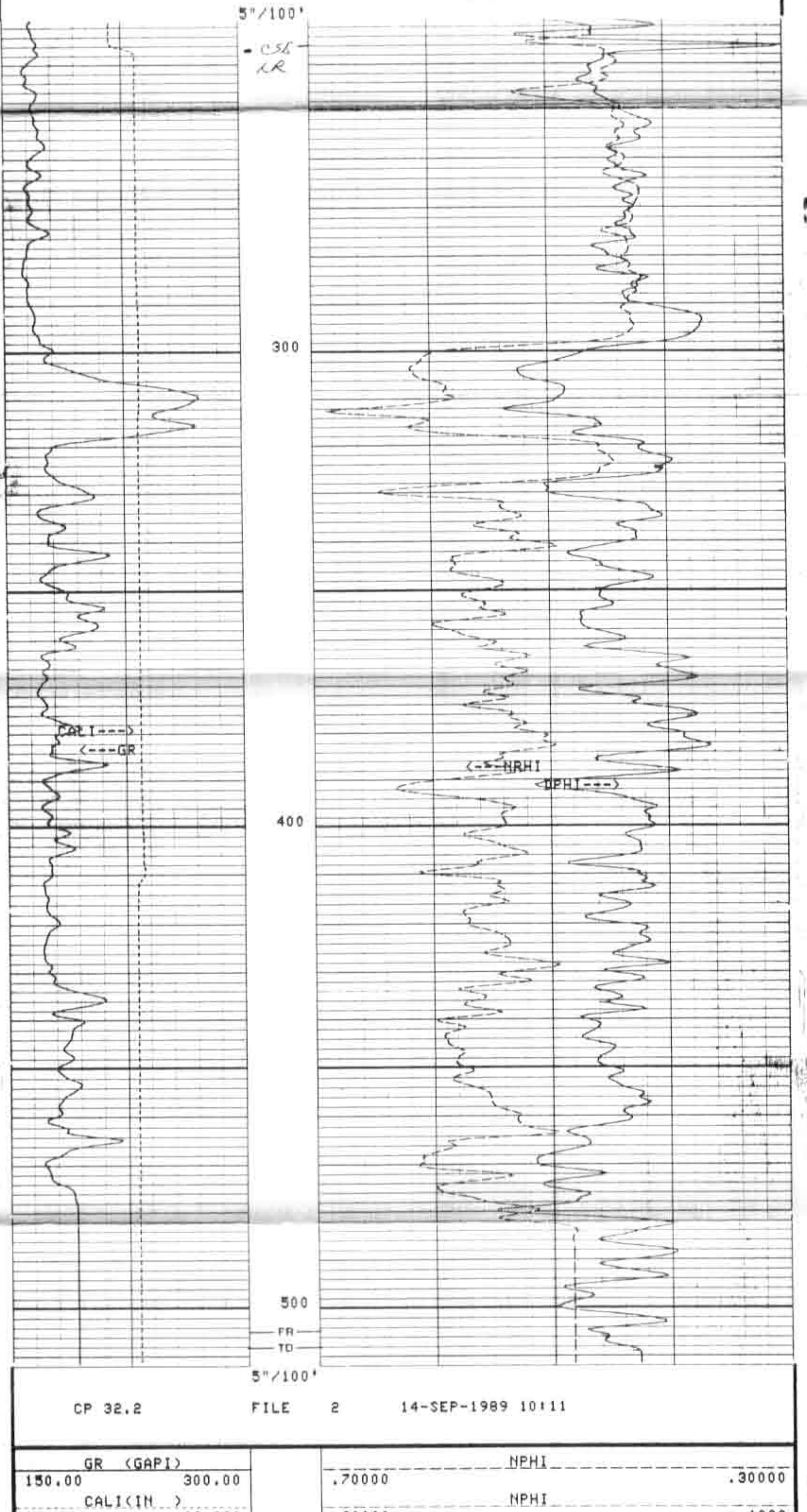


Radi | Gas or Quartz
SSW3/SSW4 Annulus Thickness Flag: 0.00 — 3.00 | CNL Porosity (Cased-Lime): 30.00 — -10.00
SSW3/SSW2 Pipe Thickness Flag: 0.00 — 3.00 | Density Porosity (Lime): 30.00 — -10.00
0.00 Gamma Ray (API Units) 150.00
0.00 Caliper (Inches) 12.00

GR (GAPI): 150.00 — 300.00 | NPHI: .70000 — .30000
CALI(IN): 0.0 — 12.000 | NPHI: .30000 — -.1000
GR (GAPI): 0.0 — 150.00 | DPHI: .30000 — -.1000

CP 32.2 FILE 2 14-SEP-1989 10:27

5"/100'



5"/100'

CP 32.2 FILE 2 14-SEP-1989 10:11

GR (GAPI): 150.00 — 300.00 | NPHI: .70000 — .30000
CALI(IN): 0.0 — 12.000 | NPHI: .30000 — -.1000
GR (GAPI): 0.0 — 150.00 | DPHI: .30000 — -.1000

SENSOR MEASURE POINT TO TOOL ZERO

CFTC	24.7	FEET	GR	33.7	FEET
PARI	0.0	FEET	CNTC	24.2	FEET
LSPU	3.1	FEET	SSPU	2.7	FEET
SSL3	2.7	FEET	SSL4	2.7	FEET
SSL1	2.7	FEET	SSL2	2.7	FEET
LSL3	3.1	FEET	LSL4	3.1	FEET
LSL1	3.1	FEET	LSL2	3.1	FEET
HVLS	0.0	FEET	HVSS	0.0	FEET
TCRT	0.0	FEET	TPAD	0.0	FEET
SSDC	2.7	FEET	SSDP	2.7	FEET
LSDC	3.1	FEET	LSDP	3.1	FEET
SSW4	2.7	FEET	SSW5	2.7	FEET
SSW2	2.7	FEET	SSW3	2.7	FEET
LSW5	3.1	FEET	SSW1	2.7	FEET
LSW3	3.1	FEET	LSW4	3.1	FEET
LSW1	3.1	FEET	LSW2	3.1	FEET
TENS	-.3	FEET	CALI	2.5	FEET
TNRA	25.2	FEET			

PARAMETERS

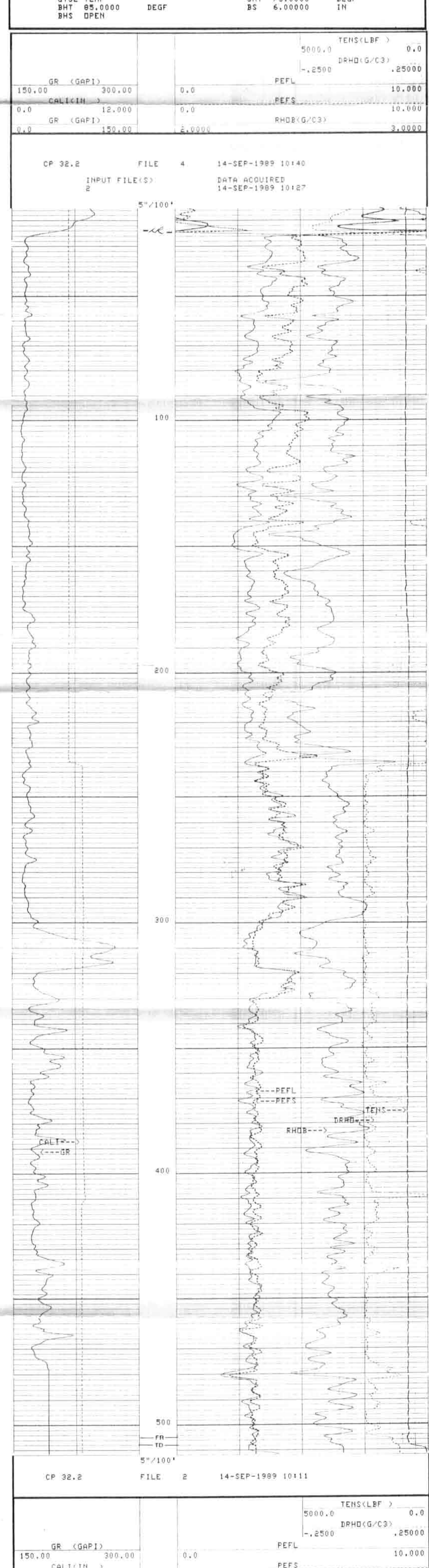
NAME	VALUE	UNIT	NAME	VALUE	UNIT
WMUD	8.30000	LB/G	TD	510.000	F
FCD	0.0	IN	DHC	CALI	
QPPS	PEFL		MDEN	2.71000	G/C3
FD	1.00000	G/C3	MATR	LIME	
HC	BS		NPDC	0	
HSCO	YES		SOCO	NO	
MCCO	NO		BSCO	NO	
FSCO	NO		MWCO	NO	
PTCO	NO		SDAT	SOCN	
MCOR	NATU		SOCN	.500000	IN
FSAL	-50000.0	PPM	ANGL	0.0	DEG
GGRD	.0100000	DF/F	BHFL	WATE	
GTSE	TEMP		SHT	75.0000	DEGF
BHT	85.0000	DEGF	BS	6.00000	IN
BHS	OPEN				

TENS(LBF): 5000.0 — 0.0
DRHO(G/C3): -.2500 — .25000
GR (GAPI): 150.00 — 300.00 | PEFL: 0.0 — 10.000
CALI(IN): 0.0 — 12.000 | PEFS: 0.0 — 10.000
GR (GAPI): 0.0 — 150.00 | RHOB(G/C3): 2.0000 — 3.0000

CP 32.2 FILE 4 14-SEP-1989 10:40

INPUT FILE(S) 2 — DATA ACQUIRED 14-SEP-1989 10:27

5"/100'



5"/100'

CP 32.2 FILE 2 14-SEP-1989 10:11

TENS(LBF): 5000.0 — 0.0
DRHO(G/C3): -.2500 — .25000
GR (GAPI): 150.00 — 300.00 | PEFL: 0.0 — 10.000
CALI(IN): 0.0 — 12.000 | PEFS: 0.0 — 10.000
GR (GAPI): 0.0 — 150.00 | RHOB(G/C3): 2.0000 — 3.0000

SENSOR MEASURE POINT TO TOOL ZERO

CFTC	24.7	FEET	GR	33.7	FEET
PARI	0.0	FEET	CNTC	24.2	FEET
LSPU	3.1	FEET	SSPU	2.7	FEET
SSL3	2.7	FEET	SSL4	2.7	FEET
SSL1	2.7	FEET	SSL2	2.7	FEET
LSL3	3.1	FEET	LSL4	3.1	FEET
LSL1	3.1	FEET	LSL2	3.1	FEET
HVLS	0.0	FEET	HVSS	0.0	FEET
TCRT	0.0	FEET	TPAD	0.0	FEET
SSDC	2.7	FEET	SSDP	2.7	FEET
LSDC	3.1	FEET	LSDP	3.1	FEET
SSW4	2.7	FEET	SSW5	2.7	FEET
SSW2	2.7	FEET	SSW3	2.7	FEET
LSW5	3.1	FEET	SSW1	2.7	FEET
LSW3	3.1	FEET	LSW4	3.1	FEET
LSW1	3.1	FEET	LSW2	3.1	FEET
TENS	-.3	FEET	CALI	2.5	FEET
TNRA	25.2	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
WMUD	8.30000	LB/G	TD	510.000	F
FCD	0.0	IN	DHC	CALI	
QPPS	PEFL		MDEN	2.71000	G/C3
FD	1.00000	G/C3	MATR	LIME	
HC	BS		NPDC	0	
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	75.0000	DEGF
BHT	85.0000	DEGF	BS	6.00000	IN
BHS	OPEN				