Schlumberger

BHC SONIC LOG
GAMMA RAY

COUNTY COLUMBIA
FIELD MIST GAS FIELD
LOCATION S 03-05-16 W 2267.48' & S 86-54-44 E
WELL OM 12-22-65
COMPANY NORTHWEST NATURAL GAS

COMPANY NORTHWEST NATURAL GAS

WELL OM 12-22-65

FIELD MIST GAS FIELD

COUNTY COLUMBIA **STATE** OREGON

LOCATION
S 03-05-16 W 2267.48' & S 86-54-44 E
1224.03' FROM THE NW COR OF SEC 22

API SERIAL NO.	SECT.	TWP.	RANGE
36-009-00326	22	6N	5W

Other Services:
SONIC
FMS
LDT
CNL
GR
CALIPER

Permanent Datum	GROUND LEVEL	Elev.	556.0 F	**Elev.: K.B.** 565.0 F
Log Measured From	KELLY BUSHING	9.0 F	**above Perm. Datum**	**D.F.**
Drilling Measured From	KELLY BUSHING			**G.L.** 556.0 F

Date	09-SEPT-1997			
Run No.	TWO			
Depth Driller	2337.0 F			
Depth Logger (Schl.)	2324.0 F			
Btm. Log Interval	2300.0 F			
Top Log Interval	0.0 F			
Casing-Driller	8 5/8" @ 343.0 F	@		@
Casing-Logger	341.0 F			
Bit Size	@	@		@
Type Fluid in Hole	DRILLING MUD/LSND			
Dens. / Visc.	9.30 LB/G	40.0 S		
pH / Fld. Loss	9.5			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	1.480 OHMM @ 83.0 DEGF		@	
Rmf @ Meas. Temp.	1.220 OHMM @ 83.0 DEGF		@	
Rmc @ Meas. Temp.	1.860 OHMM @ 83.0 DEGF		@	
Source: Rmf / Rmc	FLOWLINE	MUD TESTER		
Rm @ BHT	1.138 OHMM @ 110. DEGF		@	
TIME Circulation Ended	9-9-97 12:30			
TIME Logger on Bottom	SEE LOG			
Max. Rec. Temp.	110. DEGF			
Equip. / Location	8303	BAKERSFIELD		
Recorded By	GREG PERRY			
Witnessed By	MR MEYER/MR. THOMAS			

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 wilful 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.	TWO	
Service Order No.	1024934	
Drilling Fluid Level	0.0 F	
Salinity		
Rmf @ BHT	.938 OHMM @ 110. DEGF	@
Rmc @ BHT	1.431 OHMM @ 110. DEGF	@
Logging Speed	1800.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	FMS	
Tool Number 2	DRS 4768	
Tool Number 3	NSCE 2979	
Tool Number 4	CNCHA 1345	
Tool Number 5	SGCSA 483	
Tool Number 6	TCCB 1289	
Tool Number 7	TCM 353	
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

CREW: DAN LEE.
THANKS FOR CHOOSING SCHLUMBERGER

FILES SPLICED	SPLICE DEPTH
6 TO 7	975.0 F

ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Transit Time: .289928 S FROM 2331.00 F TO 0.0 F

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
Integrated Transit Time	.00100000 S	RIGHT EDGE

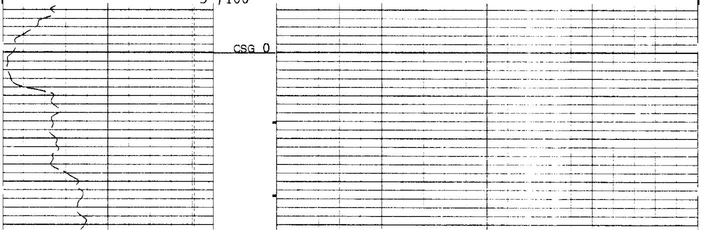
TENS(LBF)
10000. 0.0
GR(GAPI)
0.0 150.00

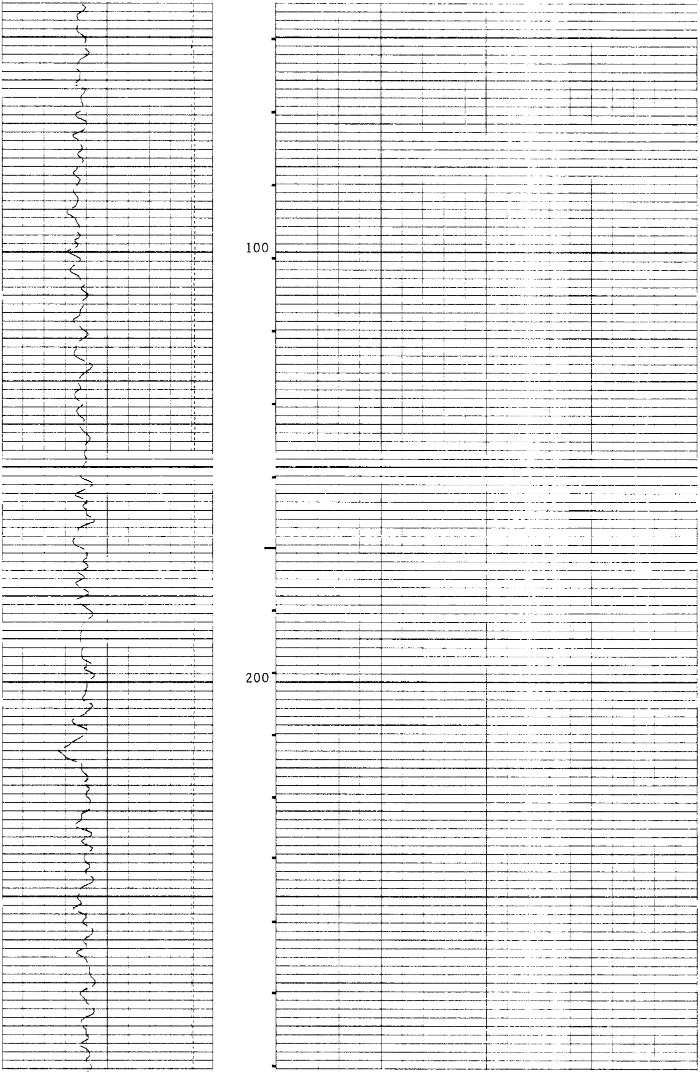
CP 44.2 FILE 9 09-SEP-1997 17:51

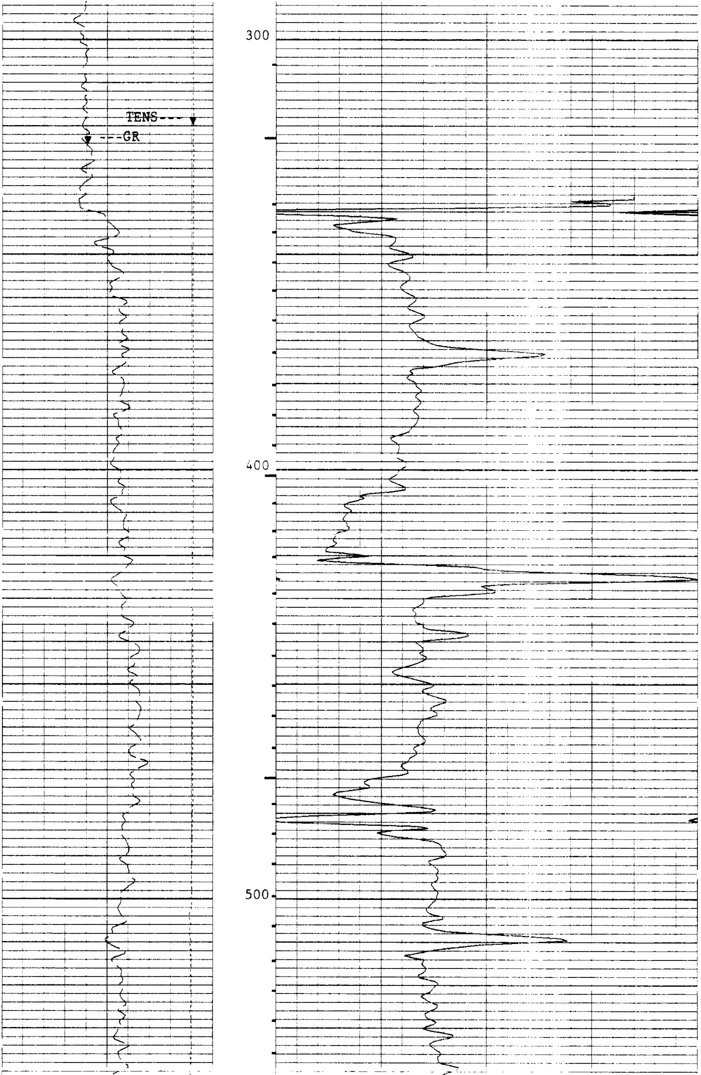
INPUT FILE(S) 7

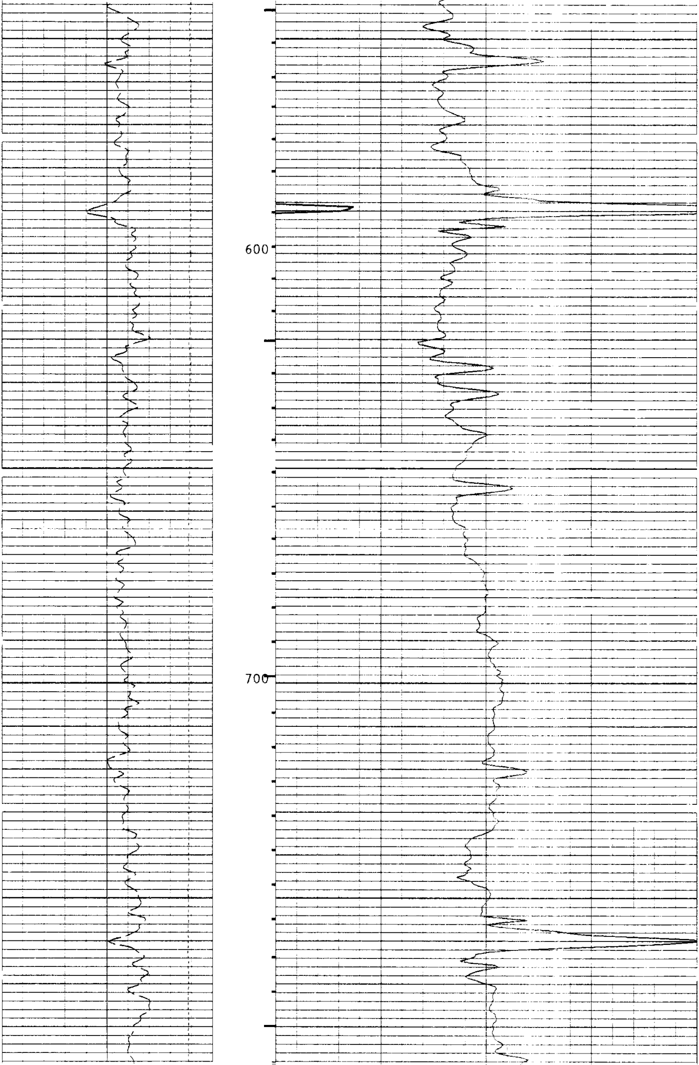
CREATION DATE 09-SEP-1997 16:28

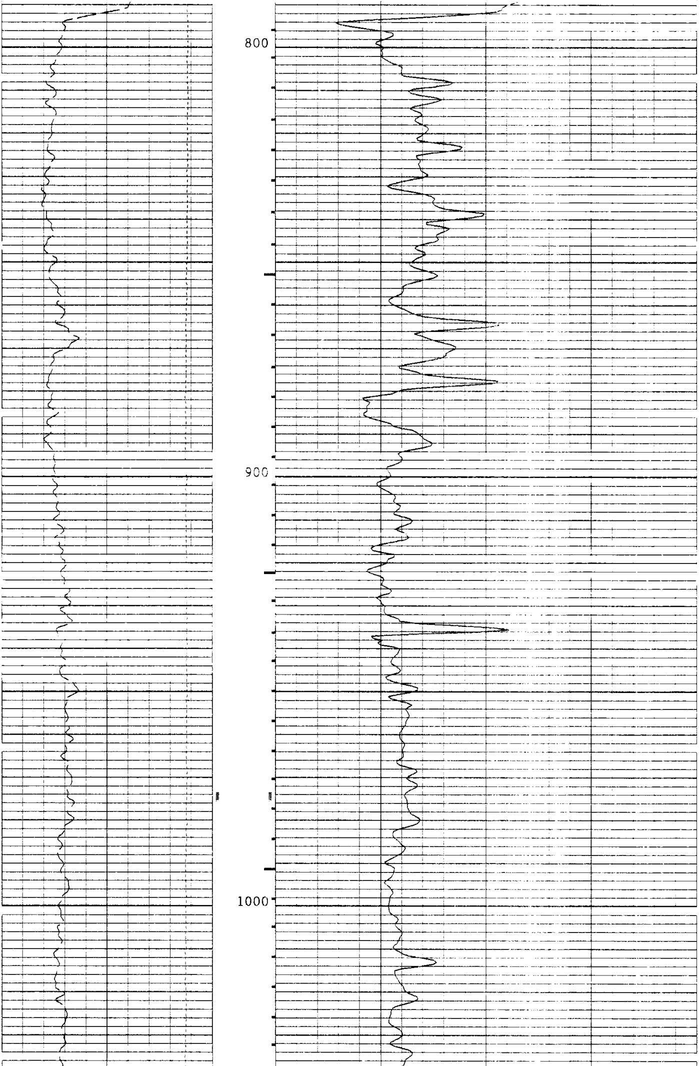
5"/100'

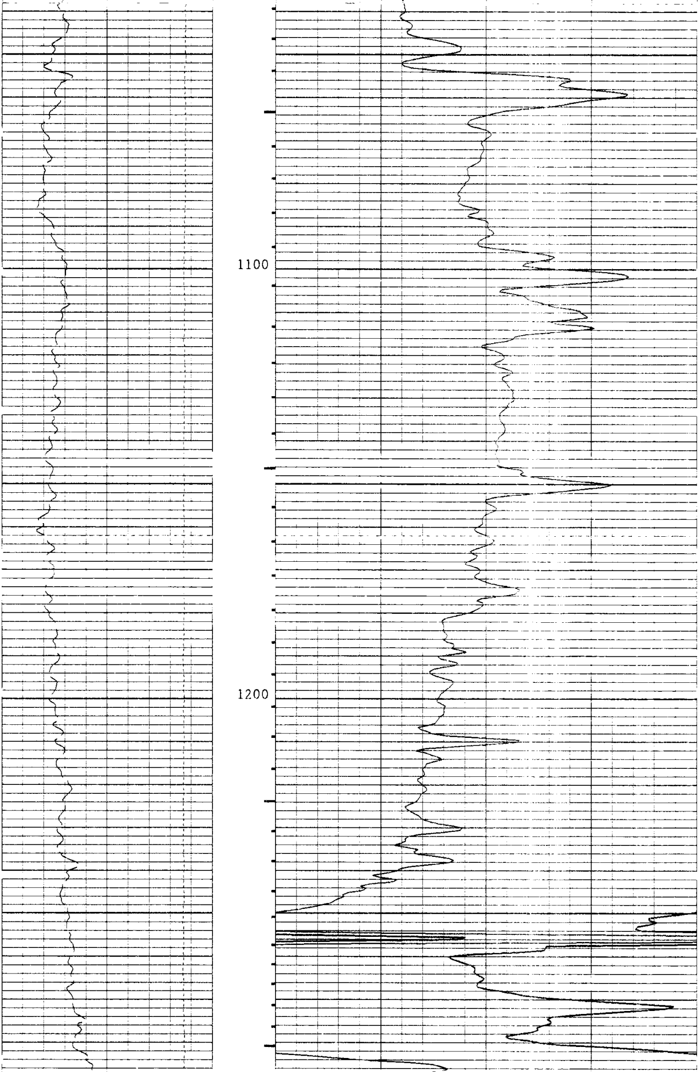


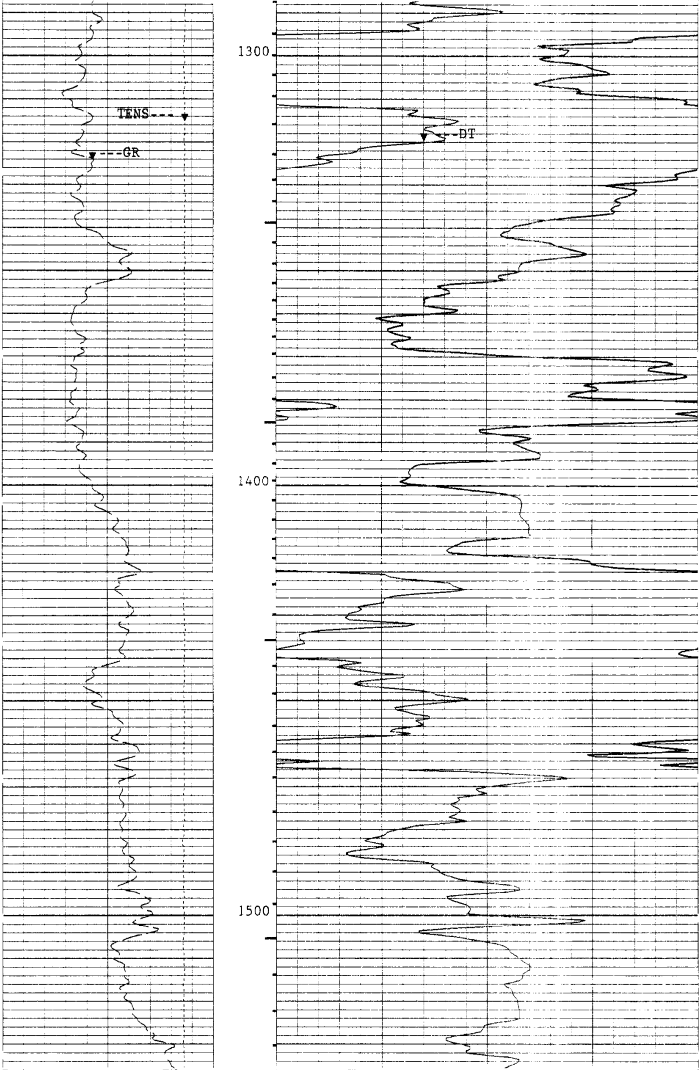


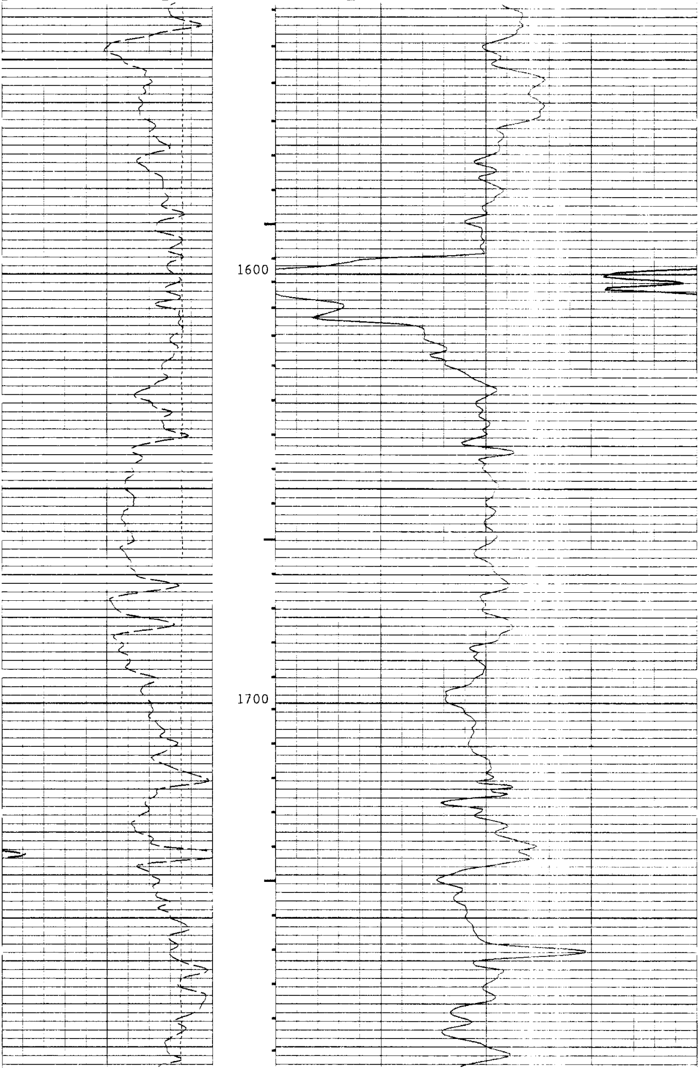


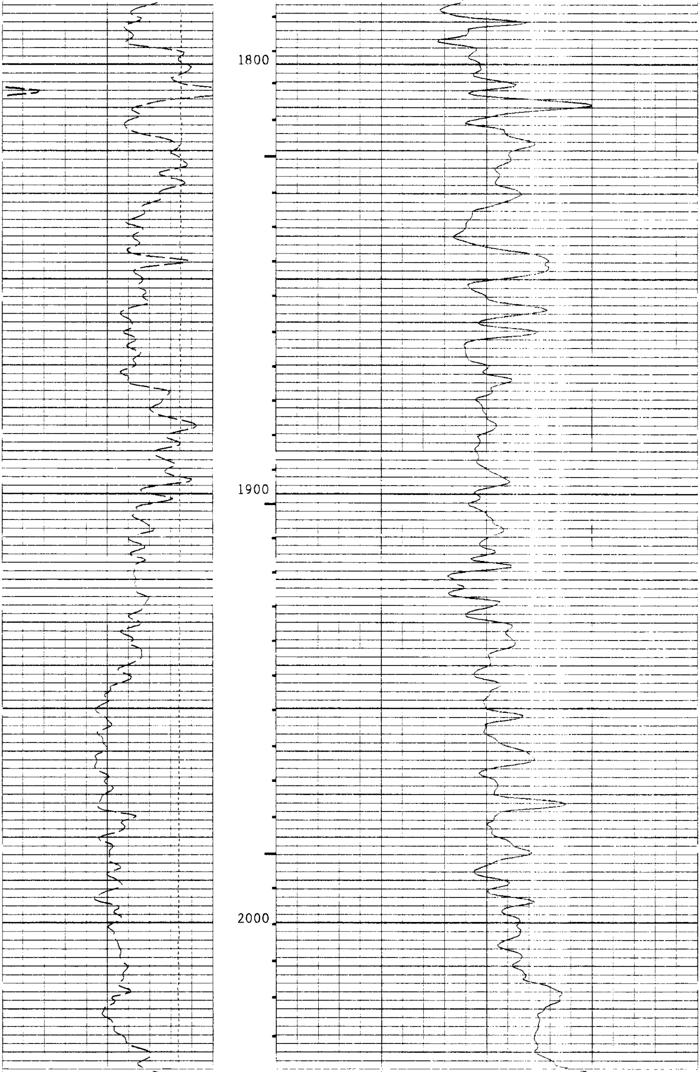


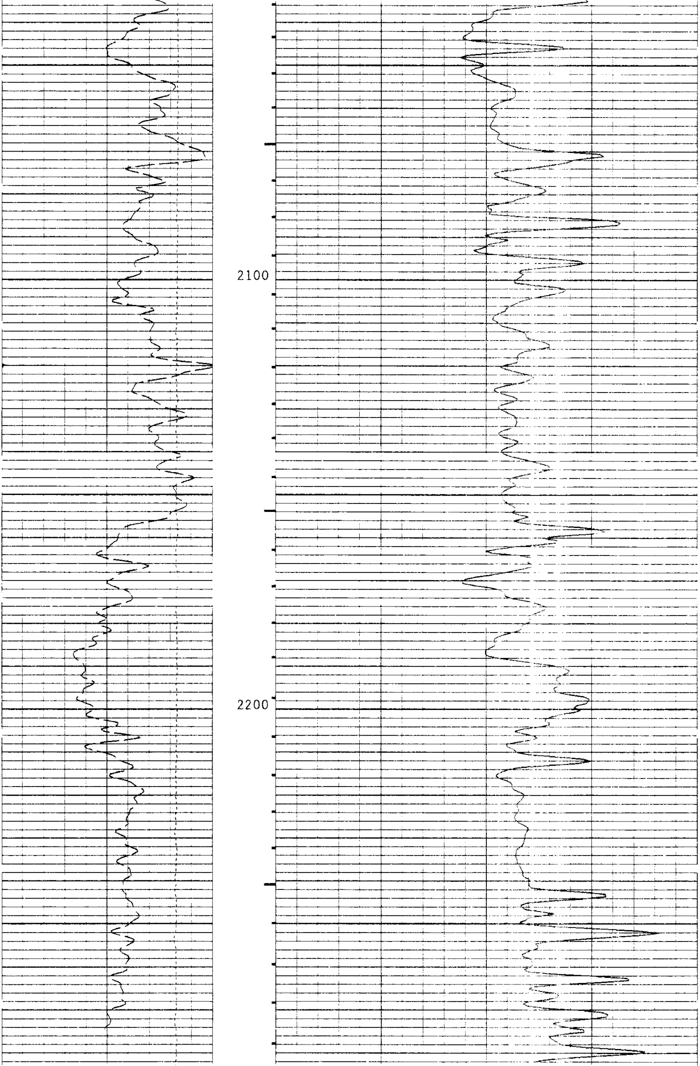


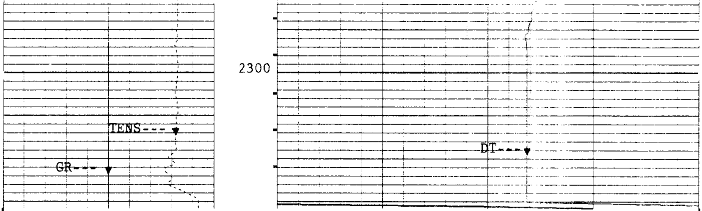












5"/100'

CP 44.2 FILE 9 09-SEP-1997 17:19

INPUT FILE(S) 6
CREATION DATE 09-SEP-1997 15:26

TENS(LBF)
10000. 0.0
GR(GAPI)
0.0 150.00
DT(US/F)
175.00 75.000

SENSOR MEASURE POINT TO TOOL ZERO

DITE 10.3 FEET
SLTT 39.6 FEET
SGTL 58.6 FEET
DTT 3.0 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SMB	ALLO		VDLR	2IN	
TOCA	DISA		RATE	15	HZ
DG	AUTO		DETE	E2	
NMSG	180	US	CBLG	35	US
AMPL	2		CBL	2	
WFM	1		SS	FAST	
TOD	DISA		SLC	UA	
DTF	189.000	US/F	DTM	56.0000	US/F
CDTS	100.000		SPFS	R-H	
PP	NORM		DO	0.0	F
WMUD	9.20000	LB/G	TD	32768.0	F
RMF	.0200000		IFRS	20	KHZ
SBR	1.00000	OHMM	MXE2	67.5818	MM/M
DXE2	57.7080	MM/M	MRE2	17.5526	MM/M
DRE2	9.56270	MM/M	MPH2	-.848451	DEG
DPH2	.0200606	DEG	MGF2	1.02314	
DGF2	1.00817		DESP	DISA	
SFLE	ALLO		DCAS	0.0	F
ITEN	ALLO		DEVI	24.0000	DEG
DSES	H412		IPRO	STAN	
IPHA	NORM		DWCO	512	
DSIN	5	US	DDEL	200	US
NCJT	GSRY		GTSE	TEMP	
SHT	75.0000	DEGF	BHT	110.000	DEGF
SPAE	DISA		BS	7.87500	IN
BHS	OPEN				

SP(MV)
-45.00 5.0000
GR(GAPI)
0.0 150.00
TENS(LBF)
10000. 0.0
DT(US/F)
175.00 75.000

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CP 44.2              FILE    1       10-SEP-1997 02:51

                     INPUT FILE(S)   CREATION DATE
                          9          09-SEP-1997 17:18
                          10         09-SEP-1997 18:05
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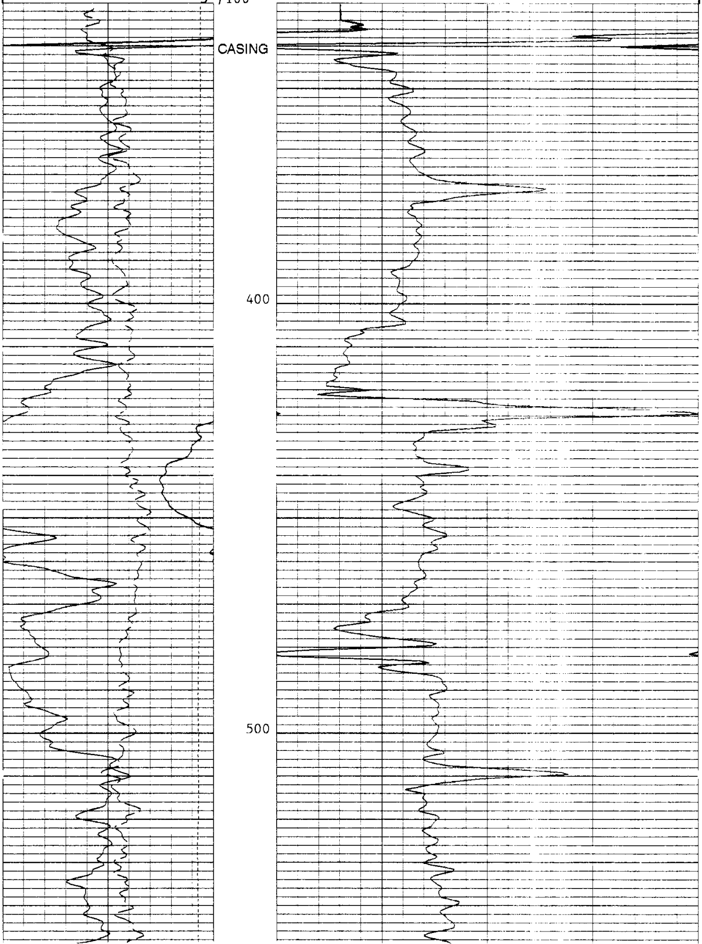
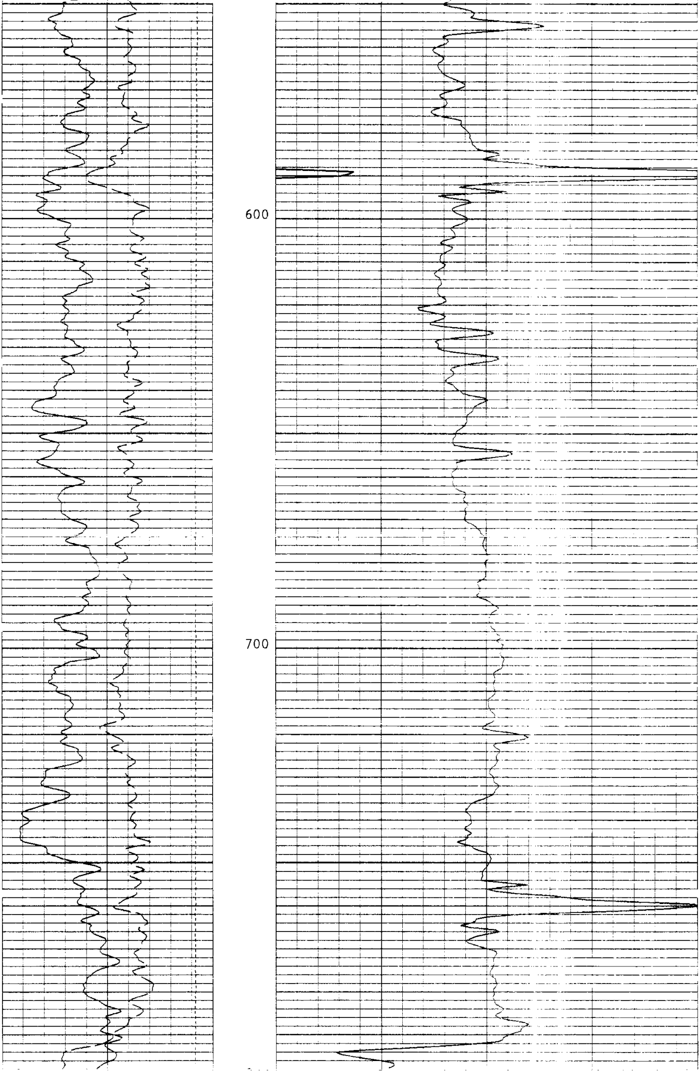
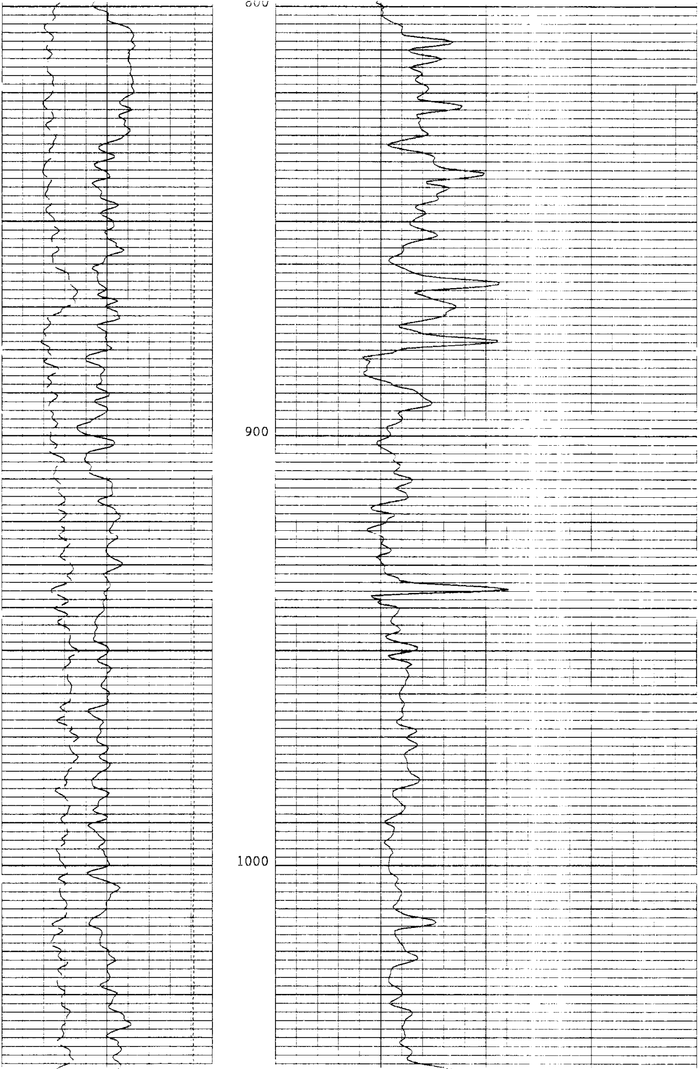
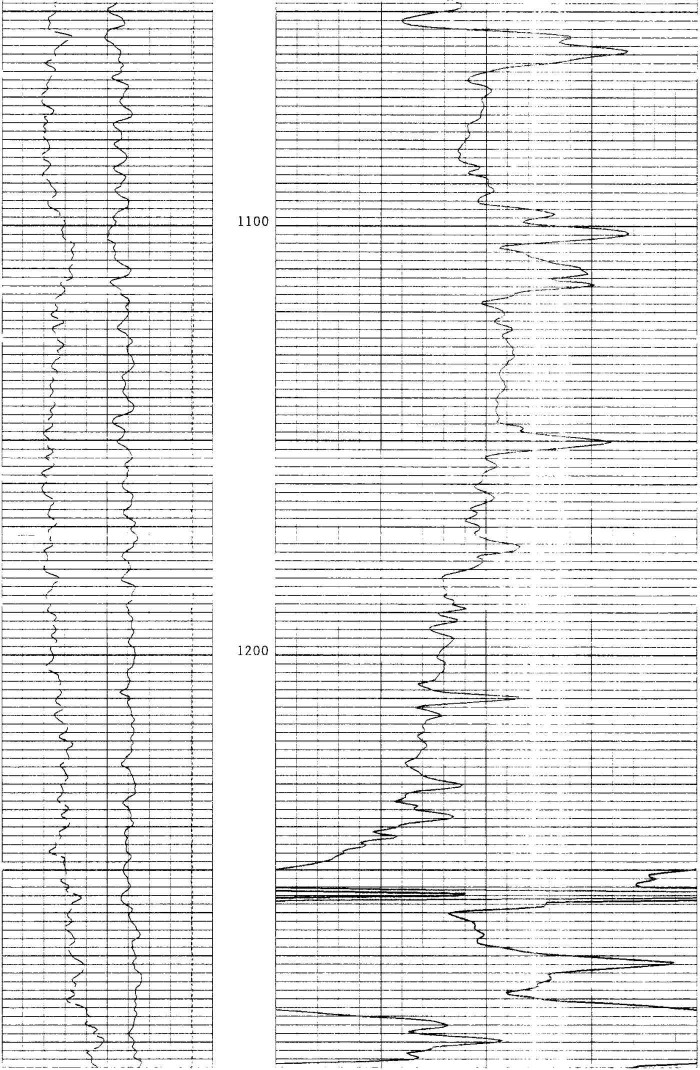
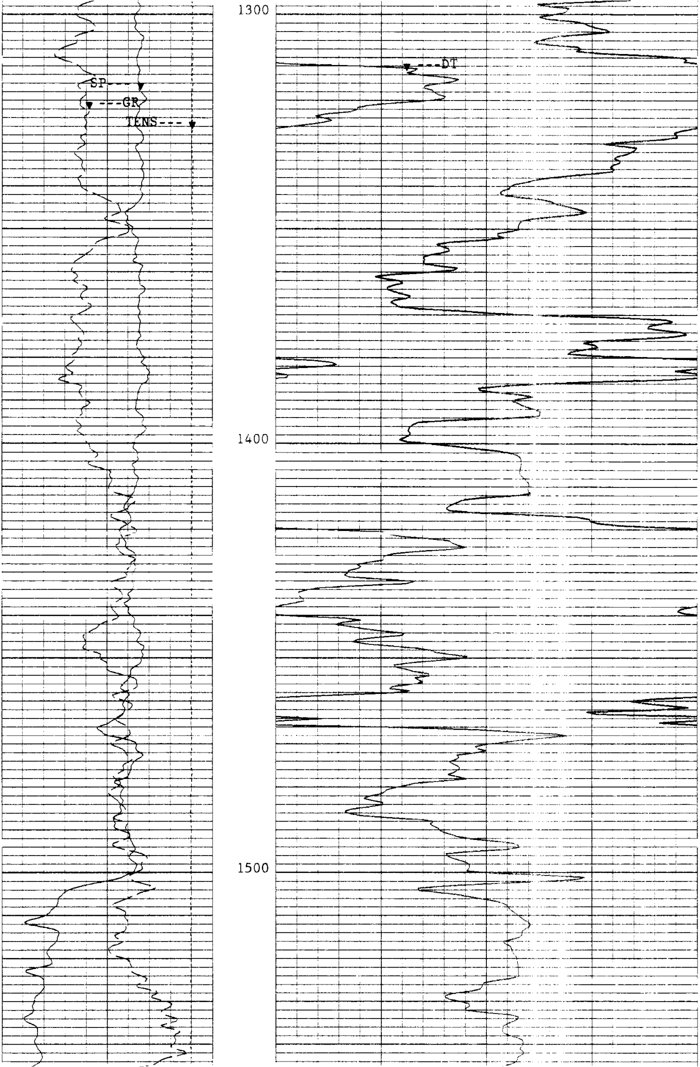
5"/100'

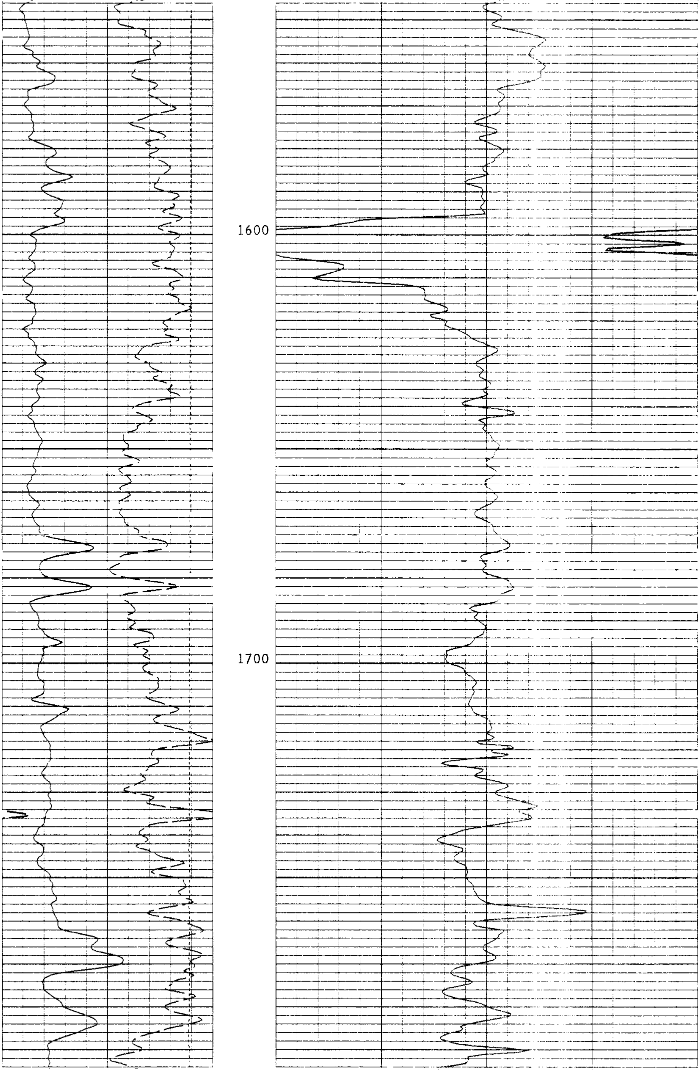


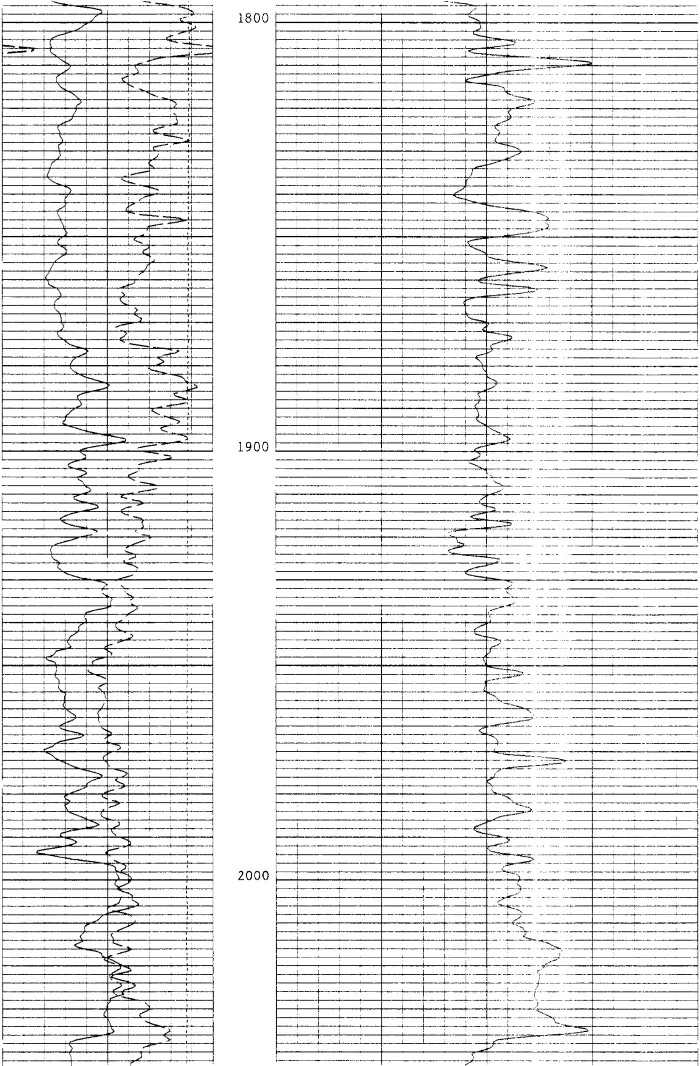


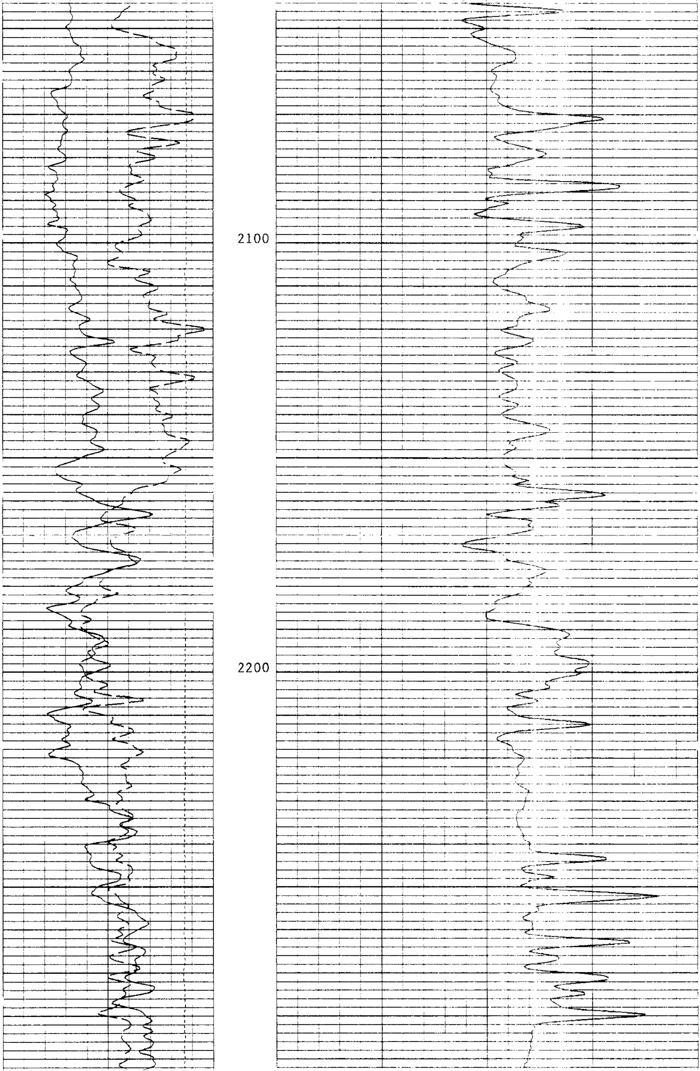


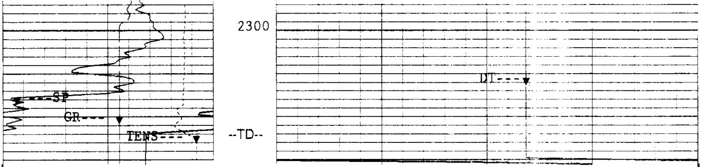












5"/100'

CP 44.2 FILE 1 10-SEP-1997 01:41

INPUT FILE(S)	CREATION DATE
9	09-SEP-1997 17:18
10	09-SEP-1997 18:05

SP(MV)
-45.00 5.0000
GR(GAPI)
0.0 150.00
TENS(LBF)
10000. 0.0
DT(US/F)
175.00 75.000

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SMB	DISA		VDLR	2IN	
TOCA	DISA		RATE	15	HZ
DG	AUTO		DETE	E2	
NMSG	180	US	CBLG	35	US
AMPL	2		CBL	2	
WTM	1		SS	FAST	
TOD	DISA		SLC	UA	
DTF	189.000	US/F	DTM	56.0000	US/F
CDIS	100.000		SPFS	R-H	
PP	NORM		DO	0.0	F
DO2	0.0	F	WMUD	9.30000	LB/G
TD	32768.0	F	IFRS	20	KHZ
SBR	1.00000	OHMM	MXE2	30.2658	MM/M
DXE2	121.315	MM/M	MRE2	17.4291	MM/M
DRE2	13.9156	MM/M	MPH2	-.893001	DEG
DPH2	.0599204	DEG	MGF2	1.02163	
DGF2	.993476		DESP	DISA	
SFLE	ALLO		DCAS	0.0	F
ITEN	ALLO		DEVI	25.0000	DEG
DSES	H412		IPRO	STAN	
IPHA	NORM		DWCO	512	
DSIN	5	US	DDEL	200	US
NCJT	GSRY		GTSE	TEMP	
SHT	75.0000	DEGF	BHT	110.000	DEGF
SPAE	DISA		BS	7.87500	IN
BHS	OPEN				

COMPANY	NORTHWEST NATURAL GAS			SCHL.	FR	2300.0 F
				SCHL.	TD	2324.0 F
WELL	OM 12-22-65			DRLR.	TD	2337.0 F
				Elev:	KB	565.0 F
FIELD	MIST GAS FIELD				DF	
COUNTY	COLUMBIA	**STATE**	OREGON		GL	556.0 F

Schlumberger

BHC SONIC LOG
GAMMA RAY