Schlumberger

CEMENT EVALUATION LOG

CSU

COMPANY: ARCO EXPLORATION COMPANY

WELL: "COLUMBIA COUNTY" #44-21

FIELD: SOUTH MIST
COUNTY: COLUMBIA
STATE: OREGON
NATION: U.S. OF A.
LOCATION: 272'N & 472'W FROM THE SE CORNER OF
SEC: 21 TWP: 6N RGE: 5W

OTHER SERVICES-
CBL
PERF

API SERIAL NO: 36 009 001

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 869.6 F
LOG MEASURED FROM: KB
10.3 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 880.0 F
DF: 879.0 F
GL: 869.6 F

PROGRAM TAPE NO: 26.2
SERVICE ORDER NO: 271641

DATE: 9 FEB 85
RUN NO: 1

DEPTH-DRILLER:
DEPTH-LOGGER:
BTM. LOG INTERVAL: 1992.0 F
TOP LOG INTERVAL: 34.0 F

CASING-DRILLER:	990 F	2138 F
CASING-LOGGER:	990 F	
CASING:	9 5/8	5 1/2
BIT SIZE:		8 3/4

TYPE FLUID IN HOLE: KCL WATER
DENSITY:
VISCOSITY:
PH:
FLUID LOSS:
SOURCE OF SAMPLE:
RM: AT
RMF: AT
RMC: AT
SOURCE RMF/RMC: /
RM AT BHT: AT
RMF AT BHT: AT
RMC AT BHT: AT

TIME CIRC. STOPPED:
TIME LOGGER ON BTM.: 0311

MAX. REC. TEMP:

LOGGING UNIT NO: 5898
LOGGING UNIT LOC: BAKERSFIELD
RECORDED BY: MARTENS
WITNESSED BY: ADLER/HOWARD

REMARKS:

CEMENT IN PLACE 11:11 8 FEB 85

CEMENTED WITH 675 SX TOTAL
LEAD SLURRY 375 SX 16#/GAL CLASS "G" W 10% NACLL
& 1% HALAD 322
TAIL SLURRY 300 SX 17#/GAL AS ABOVE

NOTE: TRANSDUCER #8 DISALLOWED

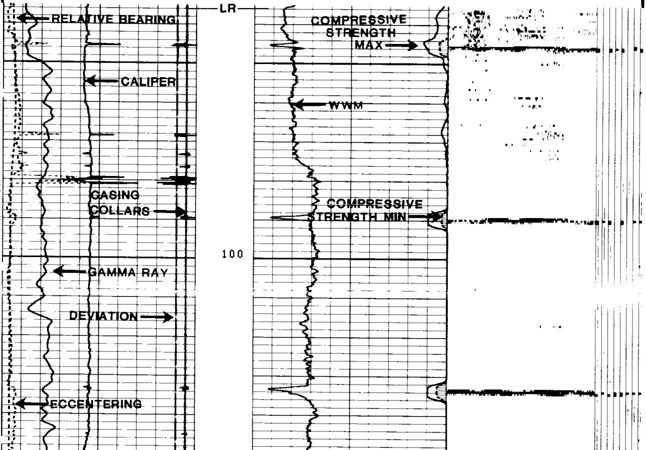
EQUIPMENT NUMBERS-

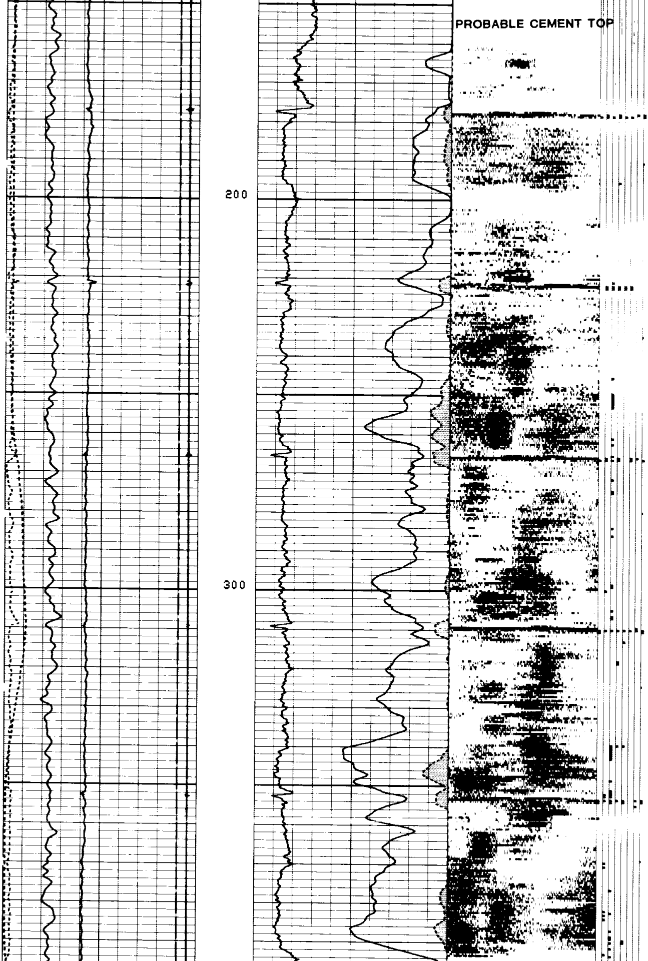
CCSM-AB 159 CES-S 727 CEEC-A 826 CCCB-A 2758
SGC-SA 535

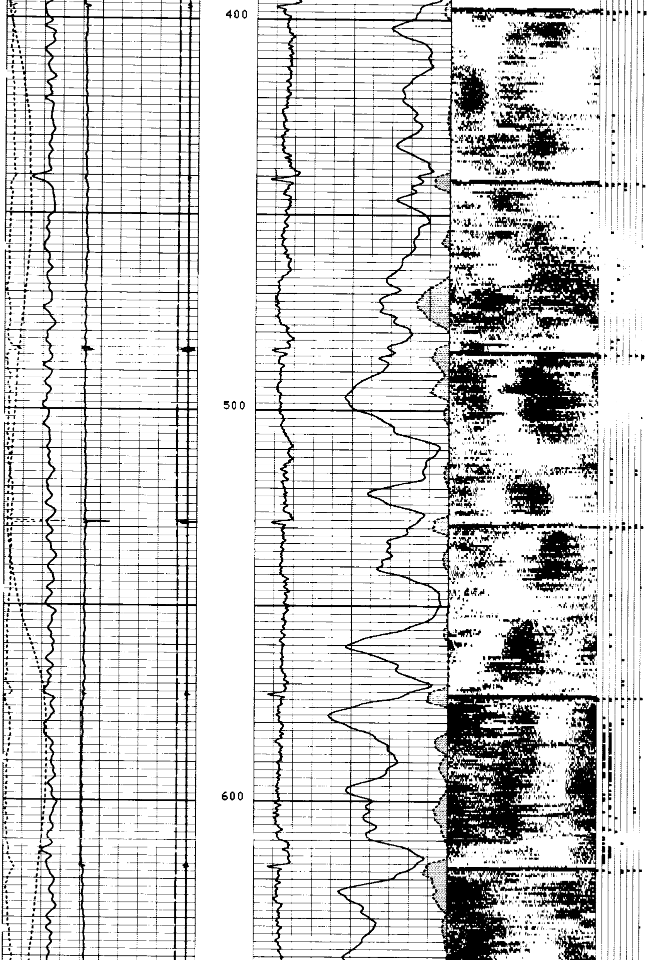
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

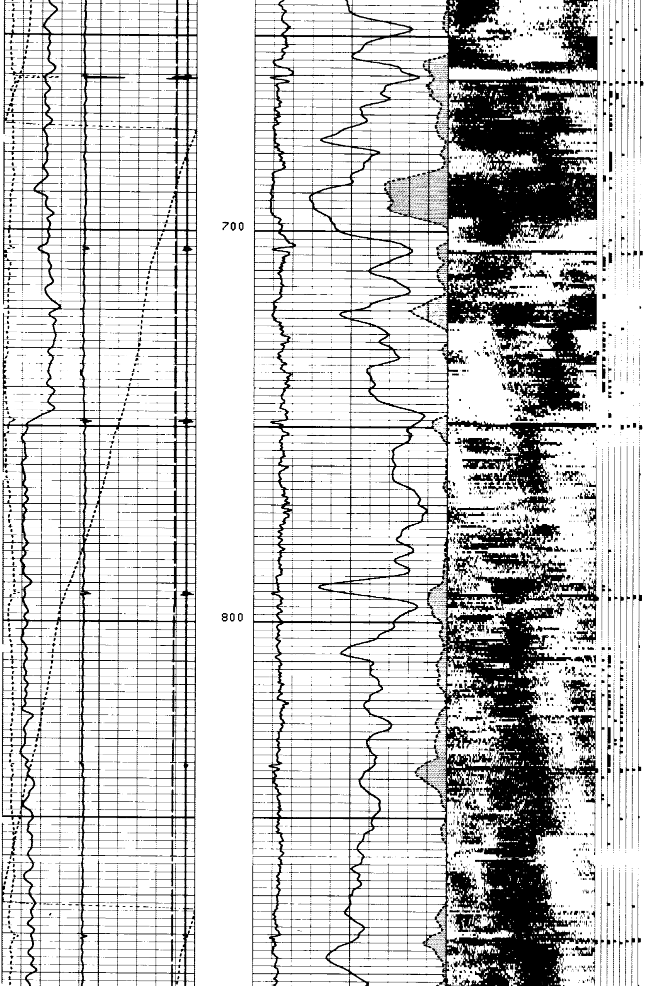
DEVI(DEG)		
36.000		-4.000
GR (GAPI)		
0.0		150.00
CCLU		
-.9500		.05000
ECCE(IN)	WWM	
0.0	0.0	.50000
		5.0000
CALU(IN)	CSMX	
4.5000	5000.0	5.5000
		0.0
RB (DEG)	CSMN	CDL
0.0	5000.0	360.00
	0.0	1.0000
		8.0000

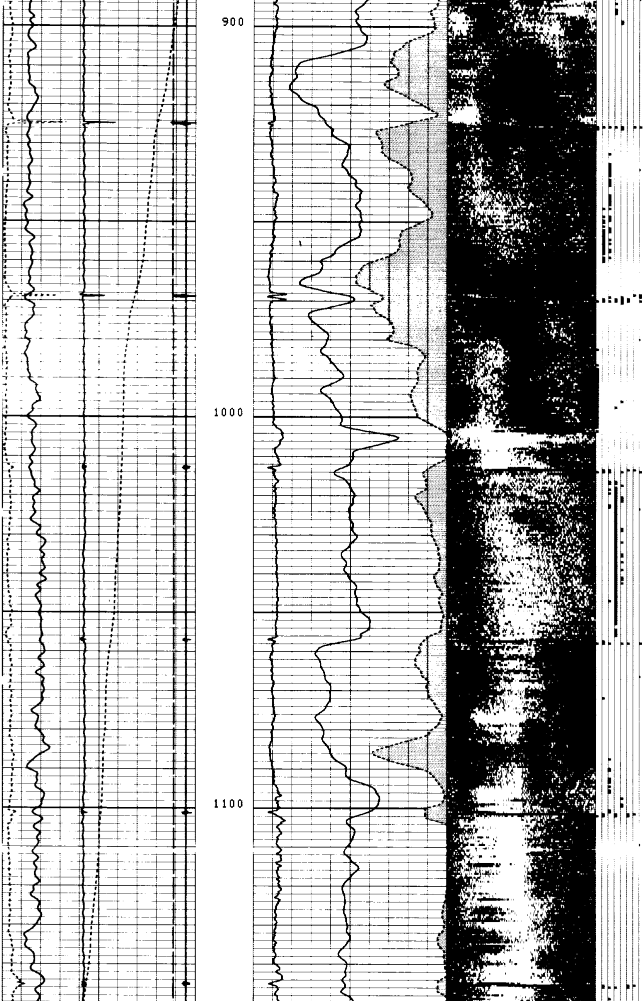
FILE 4 09-FEB-85 07:15
DATA ACQUIRED 09-FEB-85 04:06

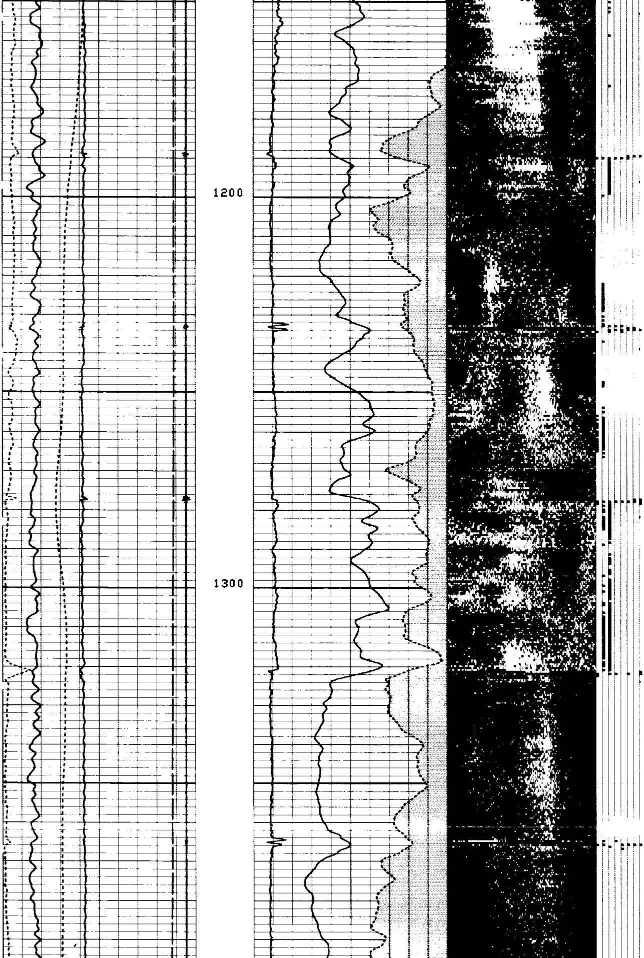


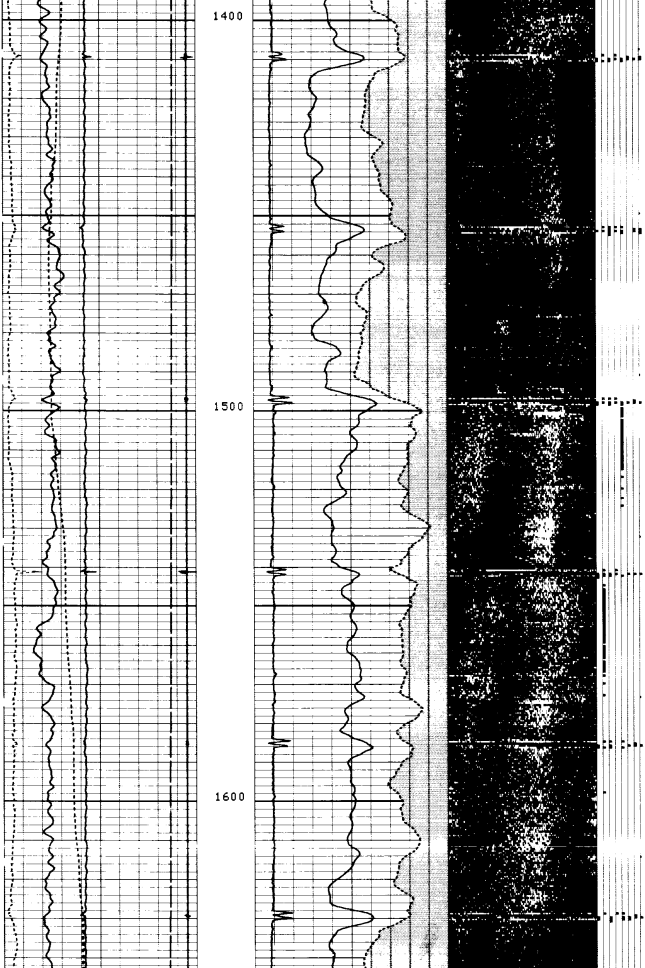


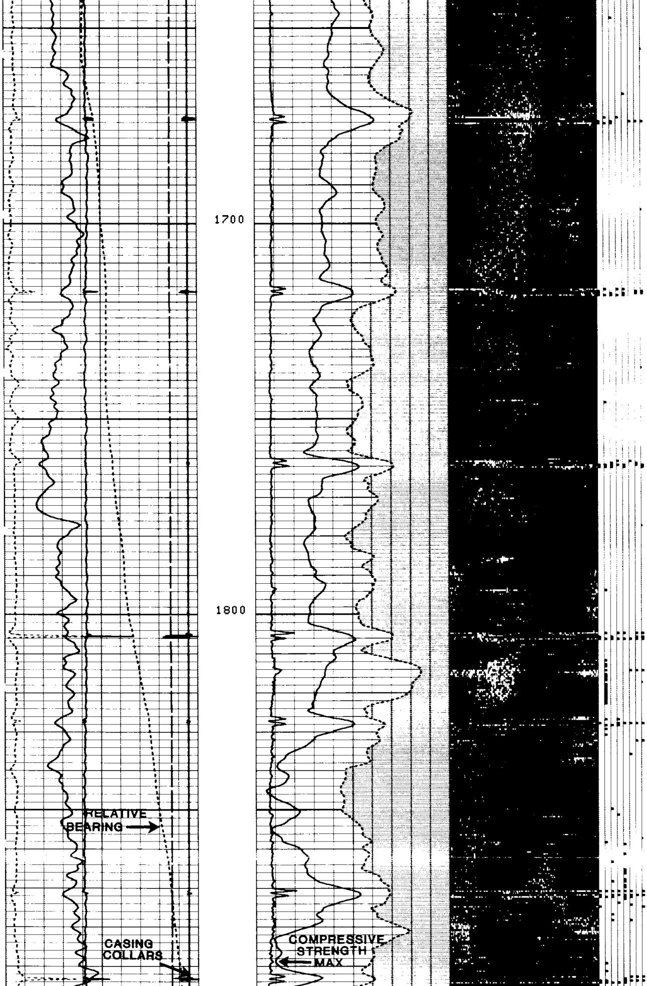


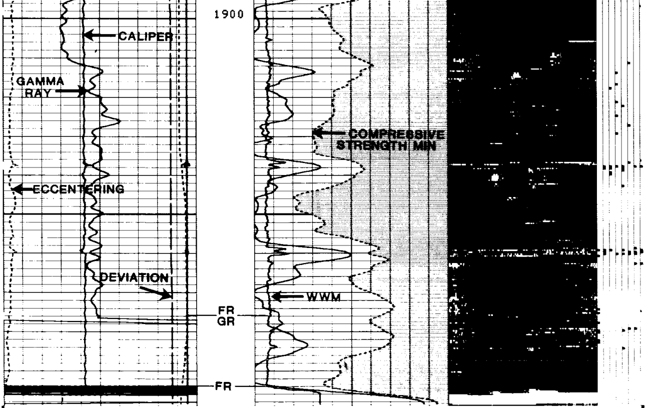












FILE 4 09-FEB-85 07:04
DATA ACQUIRED 09-FEB-85 03:20

Curve	Left	Right
DEVI(DEG)	36.000	-4.000
GR (GAPI)	0.0	150.00
CCLU	-.9500	.05000
ECCE(IN)	0.0	.50000
CALU(IN)	4.5000	5.5000
RB (DEG)	0.0	360.00
WWM	0.0	5.0000
CSMX	5000.0	0.0
CSMN	5000.0	0.0
CDL	1.0000	8.0000

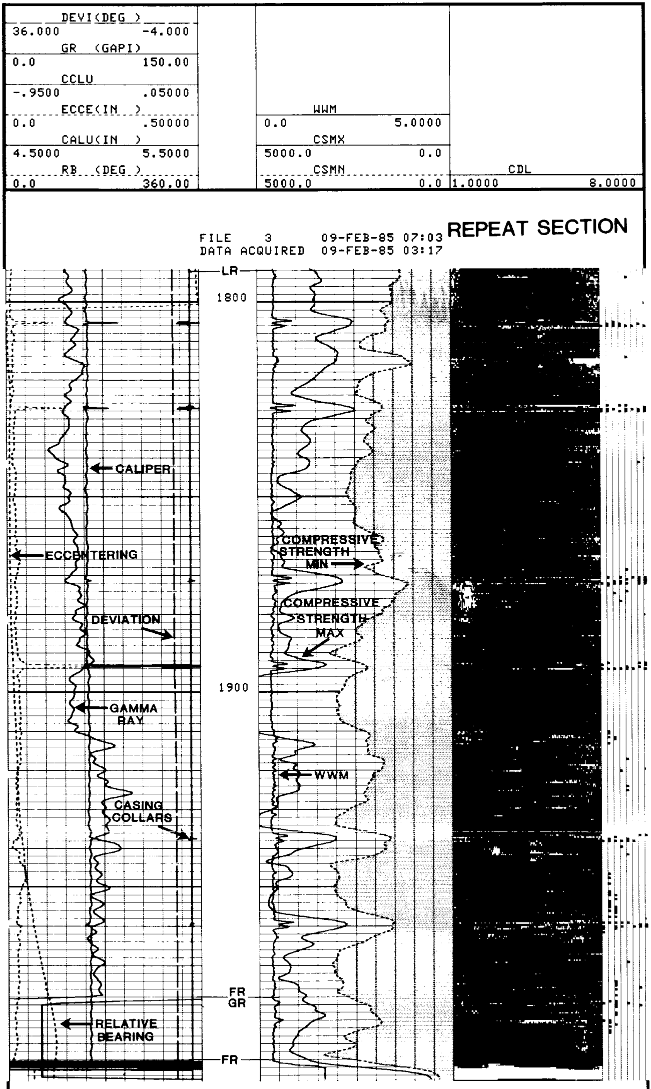
SENSOR MEASURE POINT TO TOOL ZERO

STSG	17.1	FEET	GR	21.7	FEET
RB	5.0	FEET	DEVI	5.0	FEET
T1RD	5.0	FEET	TENS	2.4	FEET
T3RD	5.5	FEET	T2RD	4.4	FEET
T5RD	6.0	FEET	T4RD	4.8	FEET
T7RD	4.6	FEET	T6RD	5.3	FEET
T9RD	3.8	FEET	T8RD	5.7	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
IL2	14.4000	US	W2FP	.600000	
W3FP	.800000		IS2	19.2000	US
CSLL	1.00000	PSIA	CSLU	3500.00	PSIA
BHS	CASE		IMAR	ALLO	
DO	-.500000	F	BS	8.75000	IN
PP	NORM				

TAPE NOT MADE



REPEAT SECTION

FILE 3 09-FEB-85 07:03
DATA ACQUIRED 09-FEB-85 03:17

FILE 3 09-FEB-85 07:02
DATA ACQUIRED 09-FEB-85 03:11 **REPEAT SECTION**

DEVI(DEG)		
36.000 -4.000		
GR (GAPI)		
0.0 150.00		
CCLU		
-.9500 .05000		
ECCE(IN)	WWM	
0.0 .50000	0.0 5.0000	
CALU(IN)	CSMX	
4.5000 5.5000	5000.0 0.0	
RB (DEG)	CSMN	CDL
0.0 360.00	5000.0 0.0	1.0000 8.0000

SENSOR MEASURE POINT TO TOOL ZERO

STSG	17.1	FEET	GR	21.7	FEET
RB	5.0	FEET	DEVI	5.0	FEET
T1RD	5.0	FEET	TENS	2.4	FEET
T3RD	5.5	FEET	T2RD	4.4	FEET
T5RD	6.0	FEET	T4RD	4.8	FEET
T7RD	4.6	FEET	T6RD	5.3	FEET
T9RD	3.8	FEET	T8RD	5.7	FEET

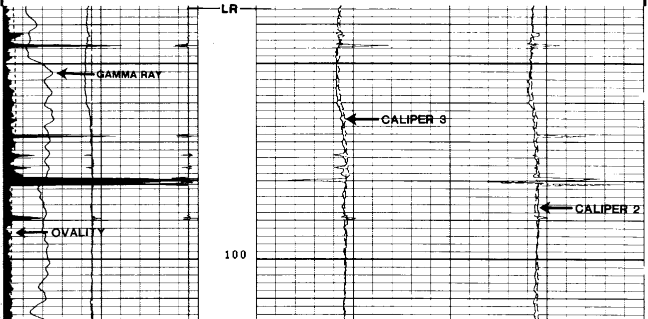
PARAMETERS

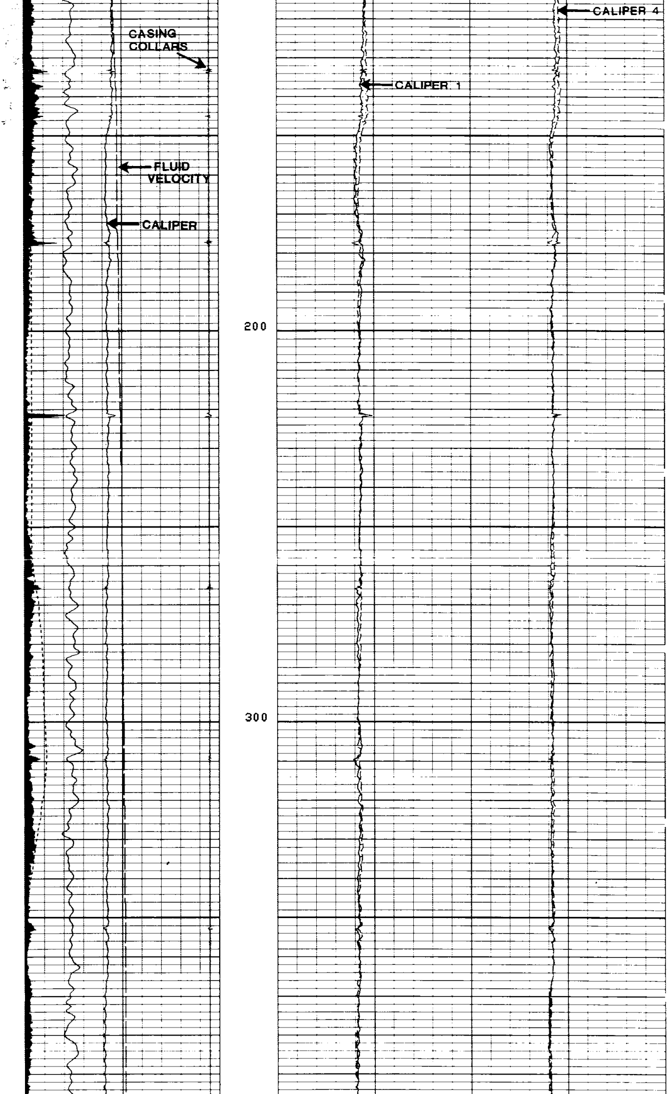
NAME	VALUE	UNIT	NAME	VALUE	UNIT
IL2	14.4000	US	W2FP	.600000	
W3FP	.800000		IS2	19.2000	US
CSLL	1.00000	PSIA	CSLU	3500.00	PSIA
BHS	CASE		IMAR	ALLO	
DO	-.500000	F	BS	8.75000	IN
PP	NORM				

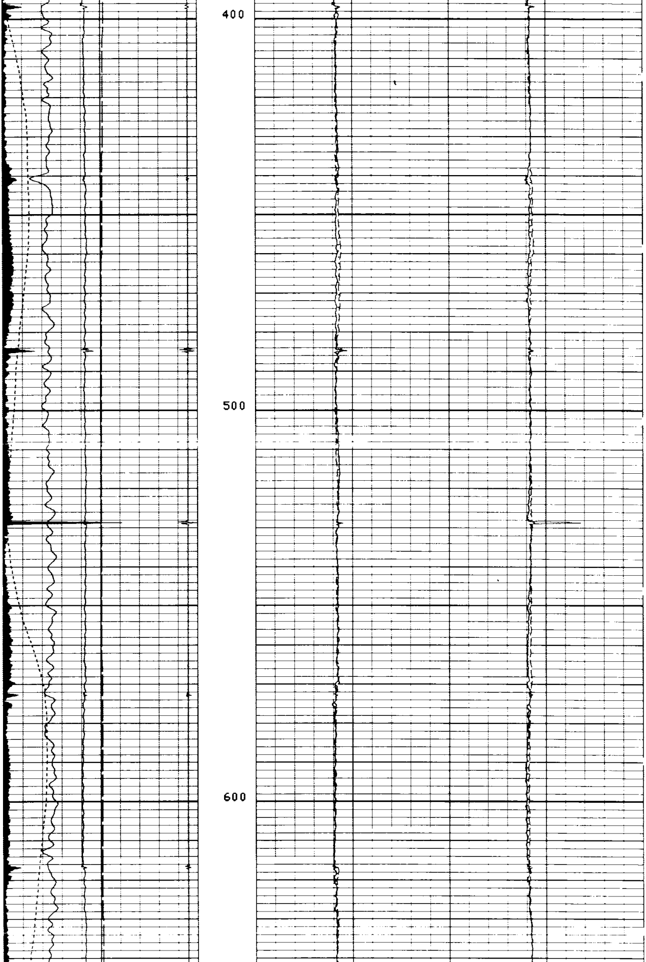
TAPE NOT MADE

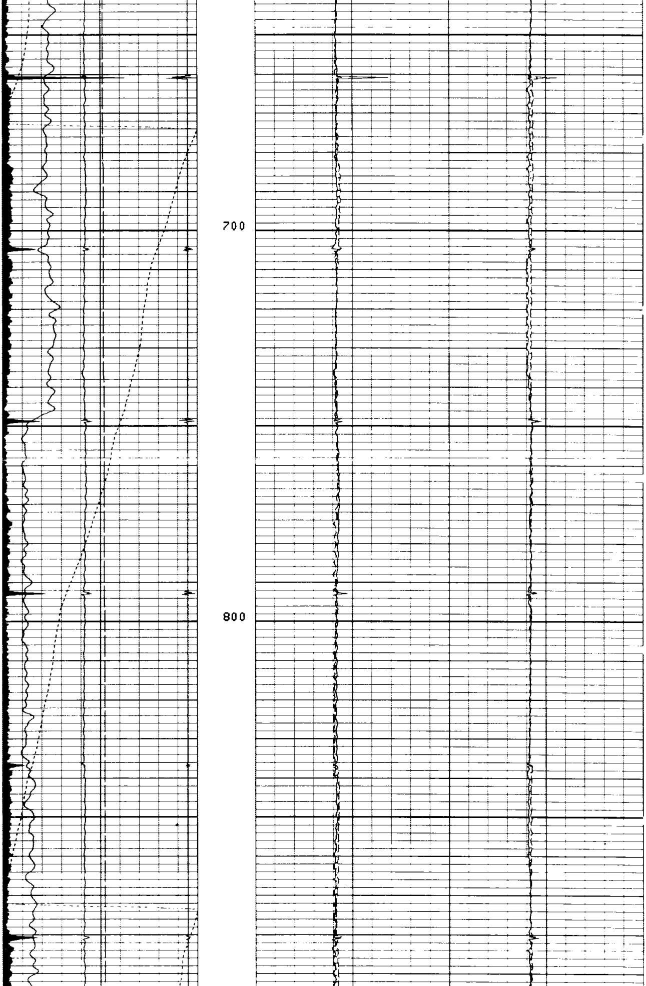
FVEL(US/F)			
250.00 150.00			
GR (GAPI)			
0.0 150.00			
OVAL(IN)			
0.0 .50000			
CCLU			
-.9500 .05000			
CALU(IN)		CAL3(IN)	CAL2(IN)
4.5000 5.5000		4.5000 5.5000	4.5000 5.5000
RB (DEG)		CAL1(IN)	CAL4(IN)
0.0 360.00		4.5000 5.5000	4.5000 5.5000

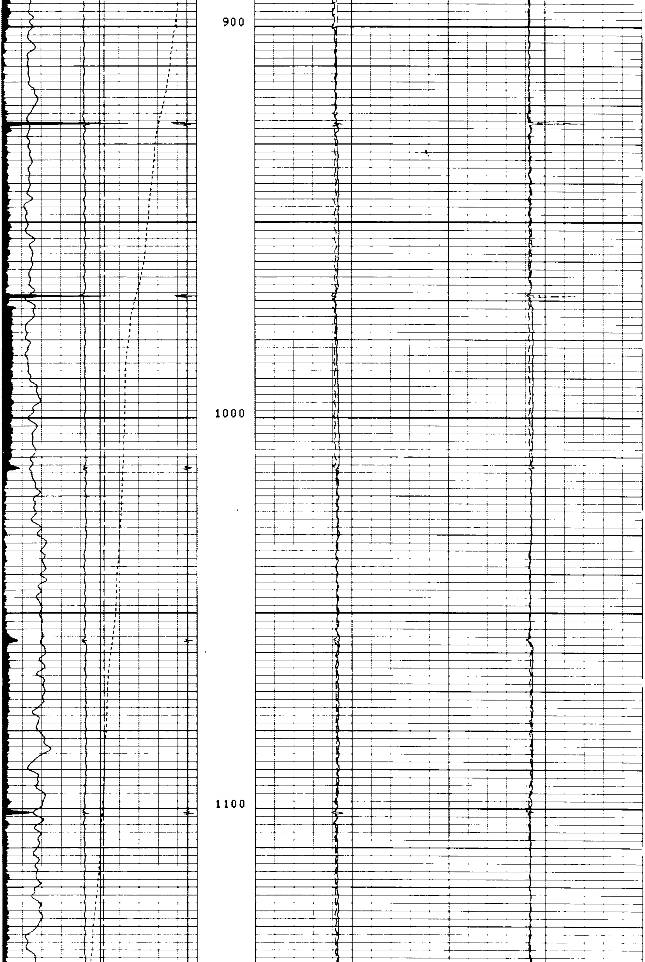
FILE 4 09-FEB-85 07:15
DATA ACQUIRED 09-FEB-85 04:06

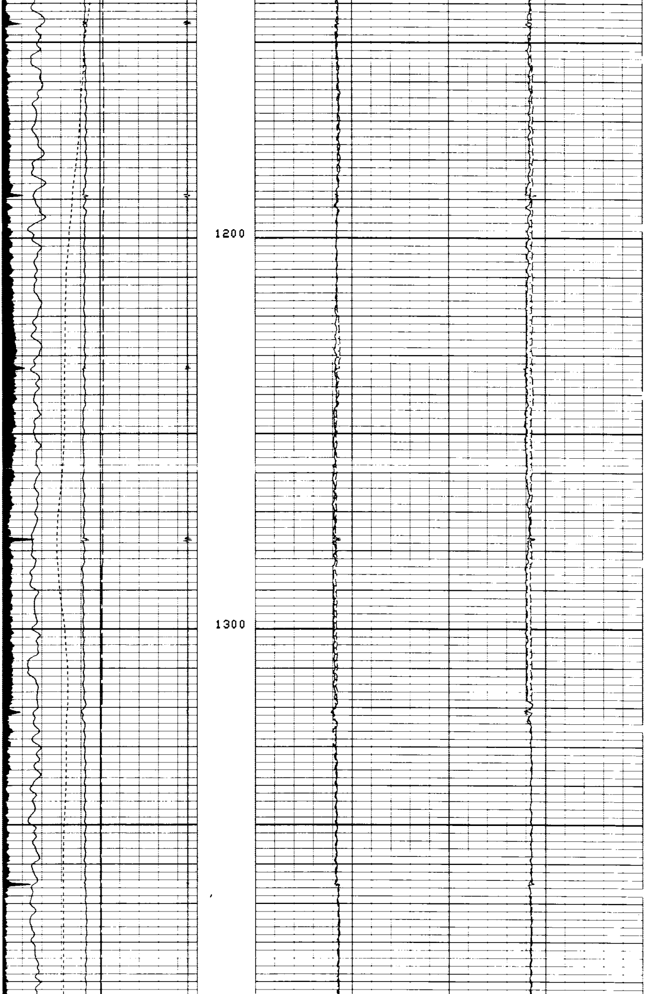


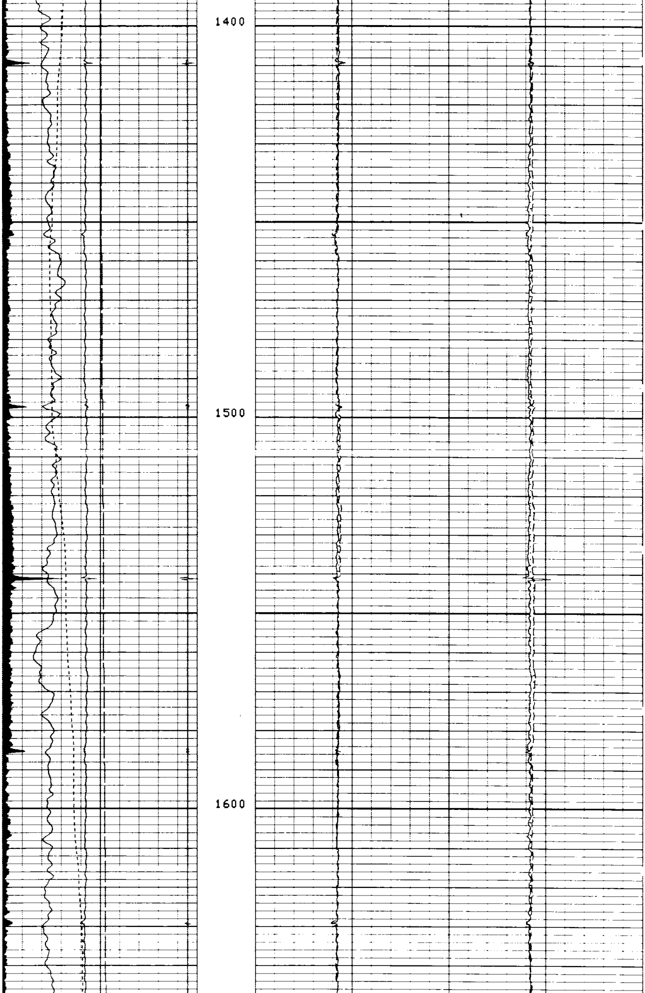


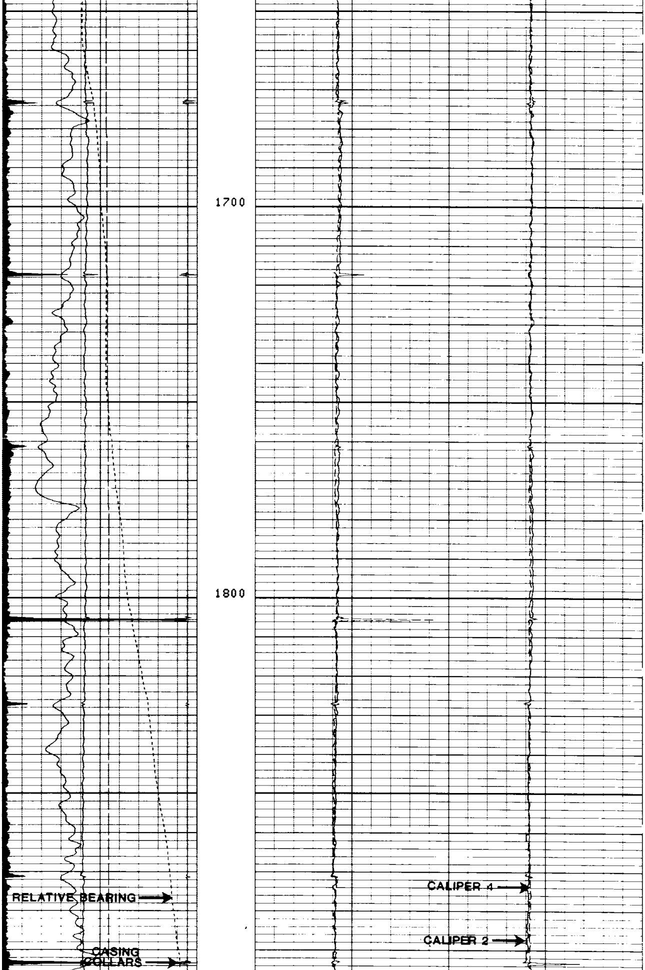


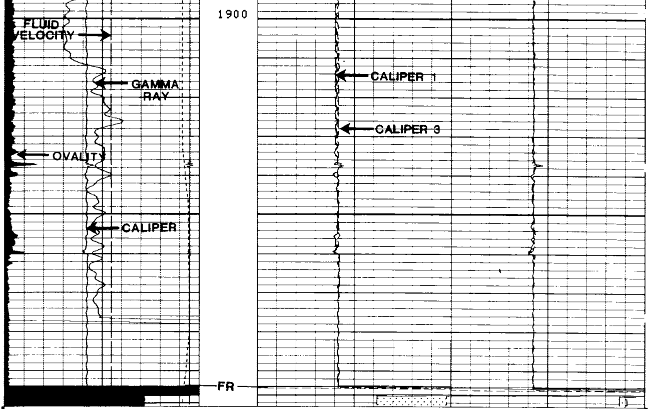












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FVEL(US/F)
250.00 150.00
GR (GAPI)
0.0 150.00
OVAL(IN)
0.0 .50000
CCLU
-.9500 .05000
CALU(IN)
4.5000 5.5000
RB (DEG)
0.0 360.00

CAL3(IN)
4.5000 5.5000
CAL1(IN)
4.5000 5.5000

CAL2(IN)
4.5000 5.5000
CAL4(IN)
4.5000 5.5000

SENSOR MEASURE POINT TO TOOL ZERO

STSG	17.1	FEET	GR	21.7	FEET
RB	5.0	FEET	DEVI	5.0	FEET
T1RD	5.0	FEET	TENS	2.4	FEET
T3RD	5.5	FEET	T2RD	4.4	FEET
T5RD	6.0	FEET	T4RD	4.8	FEET
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CSLL	1.00000	PSIA	CSLU	3500.00	PSIA
BHS	CASE		IMAR	ALLO	
DO	-.500000	F	BS	8.75000	IN
PP	NORM				

TAPE NOT MADE

Curve	Left	Right
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CCLU	-.9500	.05000
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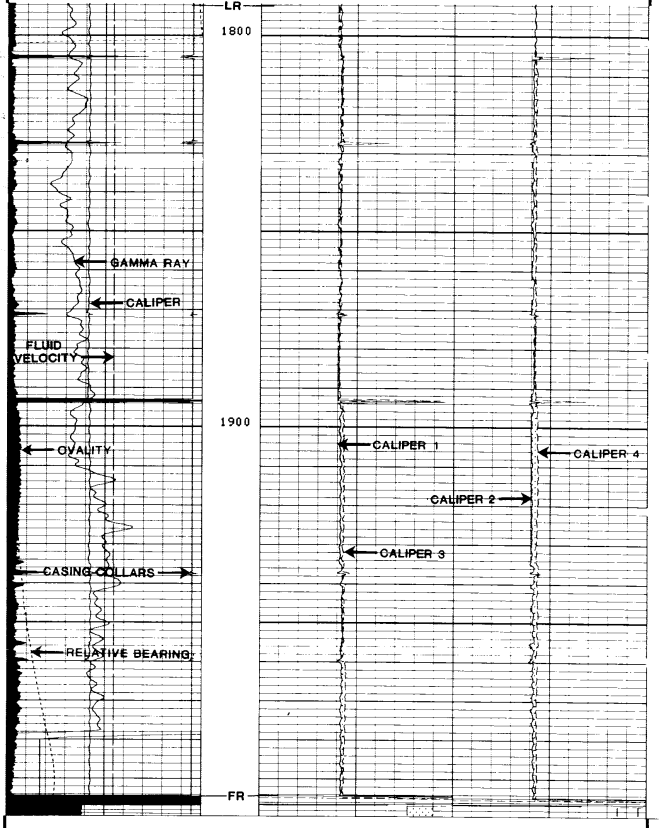
CAL3(IN)	4.5000	5.5000
CAL1(IN)	4.5000	5.5000
CAL2(IN)	4.5000	5.5000
CAL4(IN)	4.5000	5.5000

REPEAT SECTION

FILE 3 09-FEB-85 07:03
DATA ACQUIRED 09-FEB-85 03:17



FILE 3 09-FEB-85 07:02
DATA ACQUIRED 09-FEB-85 03:11

REPEAT SECTION

Curve	Left	Right
FVEL(US/F)	250.00	150.00
GR (GAPI)	0.0	150.00
OVAL(IN)	0.0	.50000
CCLU	-.9500	.05000
CALU(IN)	4.5000	5.5000
RB (DEG)	0.0	360.00
CAL3(IN)	4.5000	5.5000
CAL1(IN)	4.5000	5.5000
CAL2(IN)	4.5000	5.5000
CAL4(IN)	4.5000	5.5000

SENSOR MEASURE POINT TO TOOL ZERO

STSG	17.1	FEET	GR	21.7	FEET
RB	5.0	FEET	DEVI	5.0	FEET
T1RD	5.0	FEET	TENS	2.4	FEET
T3RD	5.5	FEET	T2RD	4.4	FEET
T5RD	6.0	FEET	T4RD	4.8	FEET
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PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
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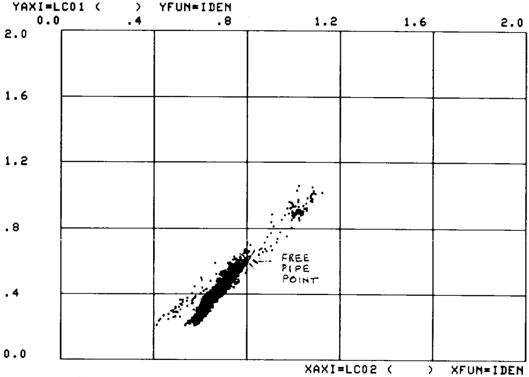
CSLL	1.00000	PSIA	CSLU	3500.00	PSIA
BHS	CASE		IMAR	ALLO	
DO	-.500000	F	BS	8.75000	IN
PP	NORM				

TAPE NOT MADE



ARCO EXPLORATION #44-21
5.5IN. 17# W/ 2%KCL