

4-ROW CALIPER LOG

FILE NO. _____ COMPANY NORTHWEST NATURAL GAS COMPANY
 WELL I. U. 136 - 11
 FIELD MIST STATE OREGON
 COUNTY COLUMBIA
 LOCATION: 212.25' NORTH & 344.20' EAST FROM THE WEST 1/4 CORNER OF:
 SEC. 11 T14P 9N R3E S4
 PERMANENT SURVEY GROUND LEVEL _____ ELEVATION _____
 LOGGING MEASURED FROM N. B. 11.4 FT. ABOVE P.I.D. OF 997.05'
 DRILLING MEASURED FROM K. B. _____ OF 886.45'
 DATE 9-28-91
 SERVICE ORDER 68913
 DEPTH-DRILLER 2395'
 DEPTH-LOGGER 2395'
 TOP LOGGED INTERVAL 2395'
 CASING - DRILLER 8 5/8" @ 2210'
 CASING - LOGGER 2 7/8" @ 2210'
 BIT SIZE 1 1/2"
 TYPE FLUID IN HOLE N/A
 DENSITY / VISCOSITY 9.1
 PH / FLUID LOSS N/A
 SOURCE OF SAMPLE N/A
 RPT BIT MESH TEMP. N/A
 RMC BIT MESH TEMP. N/A
 SOURCE OF RMC / RMC N/A
 RPT BIT MESH N/A
 LINE SINCE CIRCULATION 2 HRS.
 MIN. REC. TEMP. DEG. F 103 F
 COLL. NO. / LOC. 14 6399
 TORQUEMAN TORNSON
 RECORDED BY _____
 WITNESSED BY _____

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE DUE CARE IN THE FIT OF THE LOGS TO THE DATA. WE WILL NOT BE RESPONSIBLE FOR ANY LOSS OF INTERFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS. WE CANNOT AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

REMARKS RUN (3)

TAYLOR RIG 4
BHT 103 F & 103 F
VOLUME COMPUTED FOR 5 1/2" LINER = 120 FT3

RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
3	1	4CAL	52859	4203XA	CENTRAL 171D
3	1	GR			



FILE: 3

CURVE DELAY REPORT

CURVE	PHYS. DELAY	UNITS
C13	0	FT, IN
C24	0	FT, IN
GP	0	FT, IN

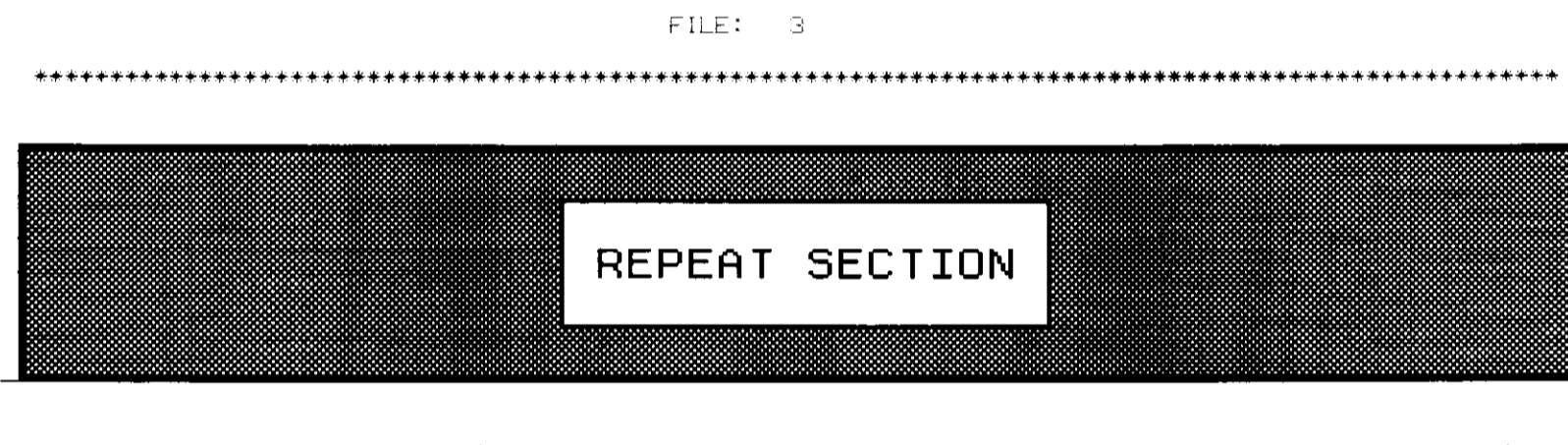
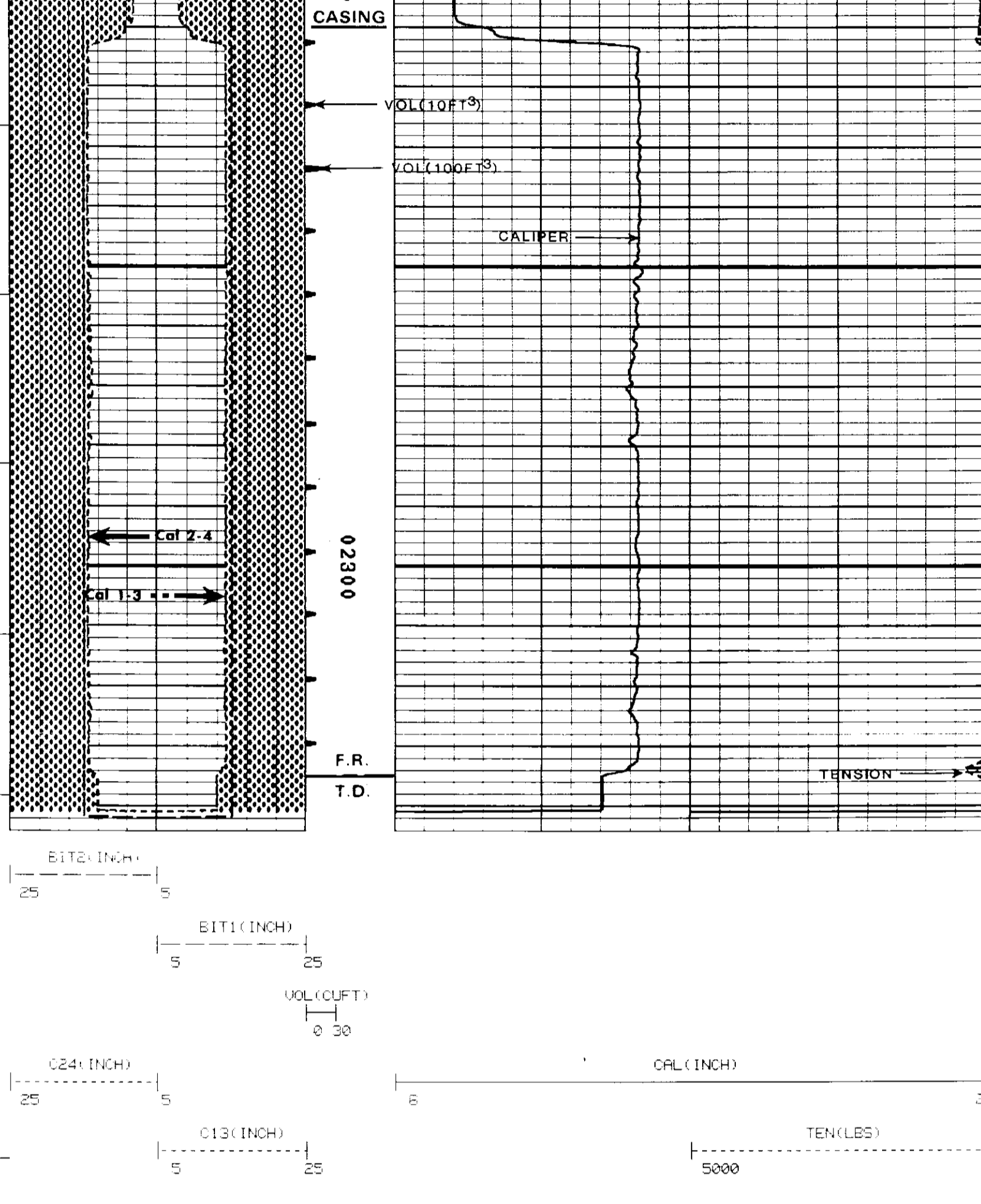
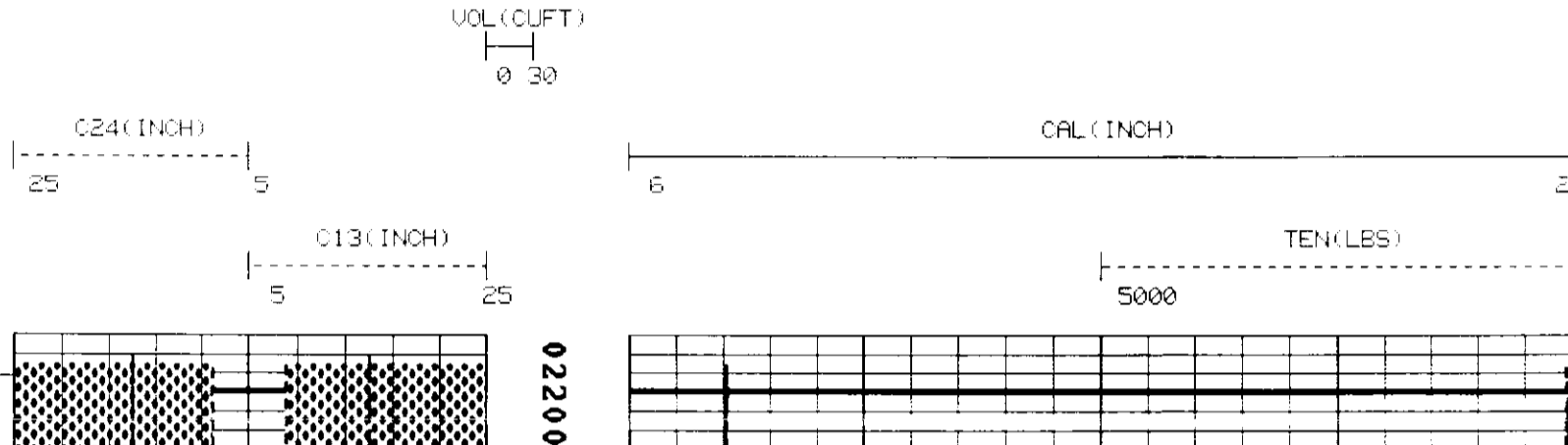
PARAMETERS

NAME	DEPTH INTERVAL	VALUE	UNITS
O.D.	2343 TO 2127	5.500	INCH

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY: NORTHWEST NATURAL GAS COMPANY RUN: 3
 WELL NAME: I. U. 136 - 11 TRIP: 1
 SERVICE: K0202A FILE: 3 DATE: 09/30/91 TIME: 19:26:36
 REVISION: FSV5256 REV:0002 VER:2.0 MODE: RECORD



FILE: 3

REPEAT SECTION

FILE: 2

CURVE DELAY REPORT

CURVE	PHYS. DELAY	UNITS
C13	0	FT, IN
C24	0	FT, IN
GP	0	FT, IN

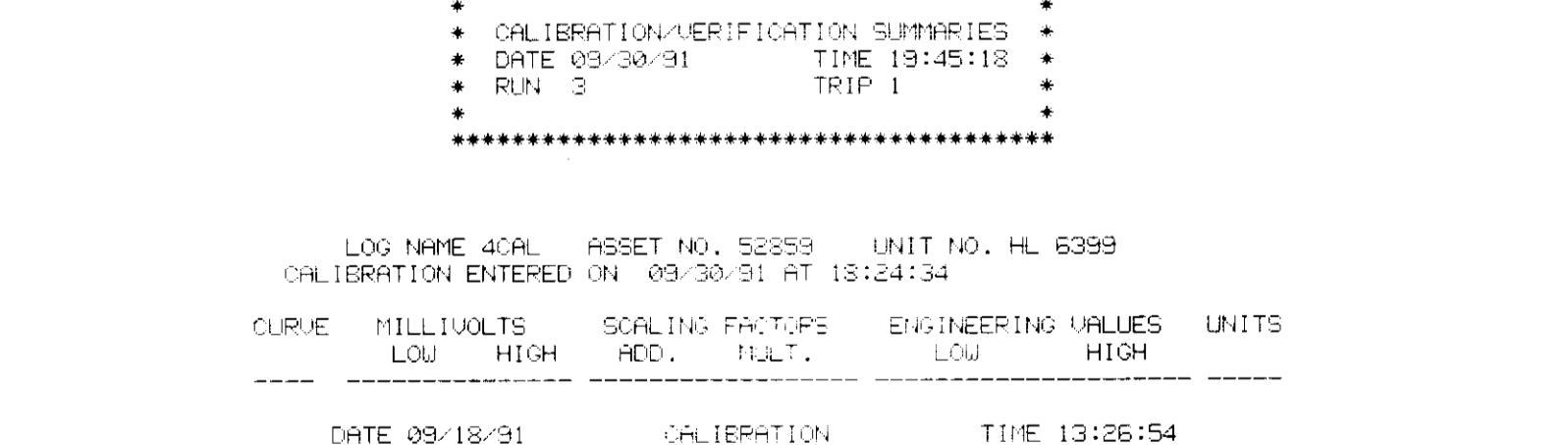
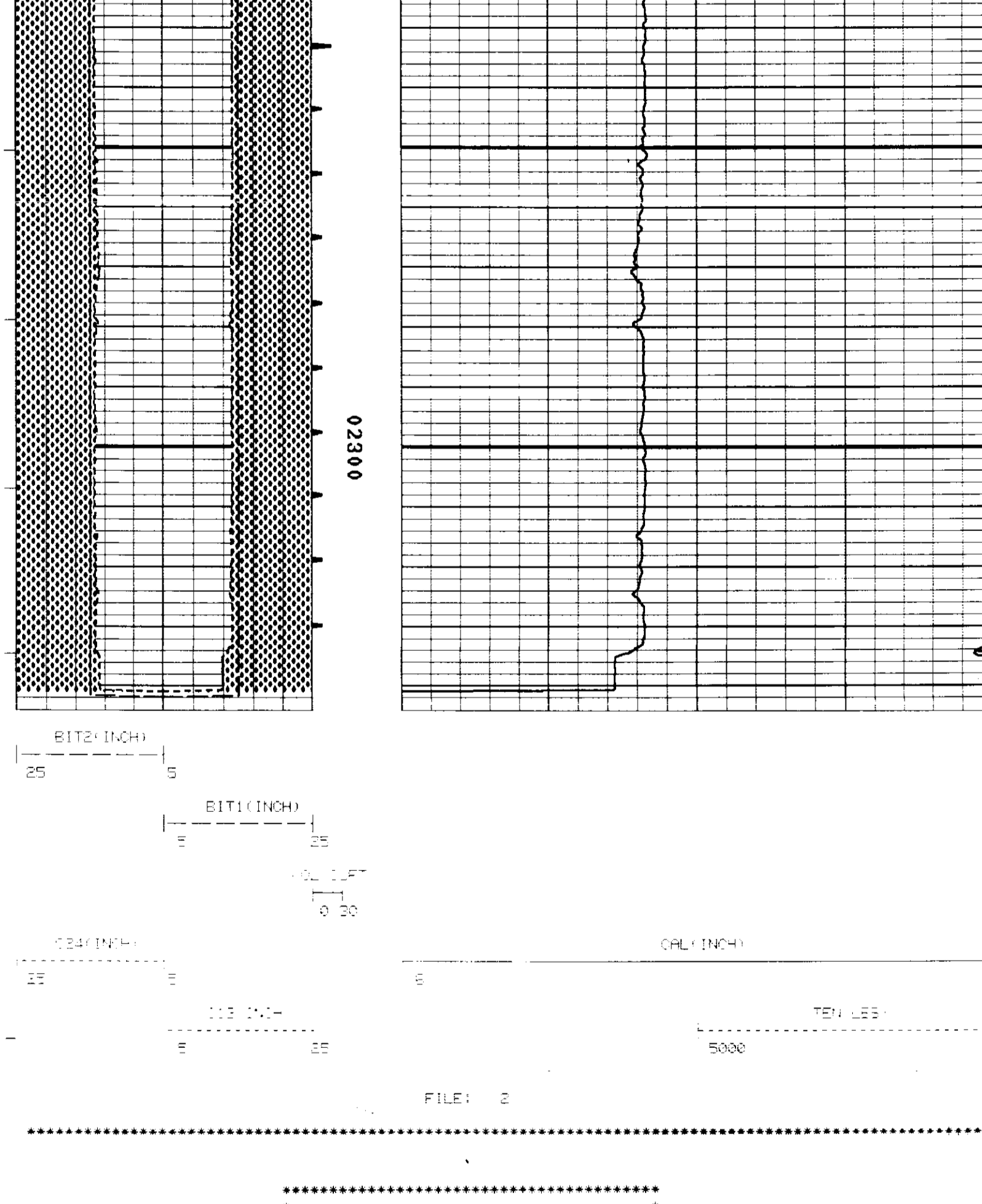
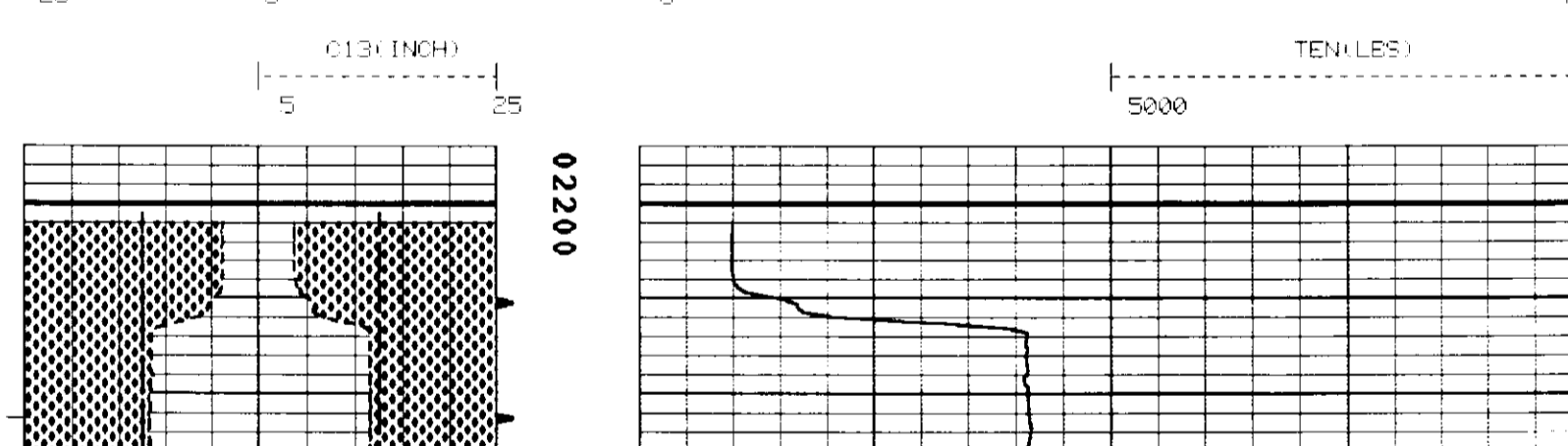
PARAMETERS

NAME	DEPTH INTERVAL	VALUE	UNITS
O.D.	2343 TO 2201	5.500	INCH

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY: NORTHWEST NATURAL GAS COMPANY RUN: 3
 WELL NAME: I. U. 136 - 11 TRIP: 1
 SERVICE: K0202A FILE: 1 DATE: 09/30/91 TIME: 19:13:13
 REVISION: FSV5256 REV:0002 VER:2.0 MODE: RECORD



FILE: 2

* CALIBRATION/VERIFICATION SUMMARIES *
 * DATE 09/30/91 TIME 19:45:18 *
 * RUN 3 TRIP 1 *

LOG NAME 40AL ASSET NO. 52859 UNIT NO. HL 6399
CALIBRATION ENTERED ON 09/30/91 AT 18:24:34

CURVE	MILLIVOLTS LOW HIGH	SCALING FACTORS RED. MULT.	ENGINEERING VALUES LOW HIGH	UNITS
DATE 09/18/91		CALIBRATION		TIME 13:26:54
C13	695.3 1410.3	-0.790 0.0273	7.000 15.000	INCH
C24	796.7 1559.2	-1.358 0.0296	7.000 15.000	INCH

PRIMARY VERIFICATION NOT DONE

DATE 09/30/91	BEFORE LOG VERIFICATION	TIME 19:14:55
C13	E 850.0 -1.540 0.0273	E 7.976 INCH
C24	E 939.9 -1.908 0.0296	E 7.953 INCH

DATE 09/30/91	AFTER LOG VERIFICATION	TIME 19:33:30
C13	E 856.3 -1.540 0.0273	E 8.343 INCH
C24	E 1410.6 -1.908 0.0296	E 7.960 INCH