Schlumberger

FOUR — ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER

COUNTY
FIELD
LOCATION
WELL
COMPANY

COMPANY FENIX + SCISSON
WELL OLD MAID # 7 A
FIELD OLD MAID FLAT
COUNTY CLACKAMAS STATE

LOCATION 2460'S + 2091'W

API SERIAL NO.	SEC	TWP	RANGE
—	15	2S	8E

Other Services:
BHC/GR
DIL
NGT
HRT
FDC/CNL/GR

Permanent Datum: GL ; Elev.: 2760
Log Measured From GL 0 Ft. Above Perm. Datum
Drilling Measured From GL

Elev.: K.B. —
D.F. 2771
G.L. 2760

Date	8/16/80			
Run No.	ONE			
Depth—Driller	1191			
Depth—Logger (Schl.)	1191			
Btm. Log Interval	1190			
Top Log Interval	96			
Casing—Driller	18" @ 96	@	@	@
Casing—Logger	96			
Bit Size	14 3/4"			
Type Fluid in Hole	BENTINITE			
Dens. | Visc.	91 | 68	|	|	|
pH | Fluid Loss	8.5 | 7.6 ml	| ml	| ml	| ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	8.97 @ 69 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	6.69 @ 66 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	10.99 @ 66 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M	|	|	|
Rm @ BHT	6.37 @ 100 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0700			
TIME Logger on Bottom	2400			
Max. Rec. Temp.	96 °F	°F	°F	°F
Equip. | Location	9128 | 4408	|	|	|
Recorded By	ROWE			
Witnessed By Mr.	NEWMAN			

SWS—1500-J

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

REMARKS: Service Order No. 123666 Magnetic Declination

Run No.	1	2	3	4
Tool Type	HTD-D			
HDP	752			
DDR | TTR	— | —	|	|	|
DPI	—			
HDM	752			
HDE	—			
HDS	1954			
Adapter Head	—			
UG | CG | SAH	|	|	|	|
5" Film | 10" Film | 60" Record	— | —	|	|	|
Analog | Digital	| ✓	|	|	|
TIME Circulation Stopped	0700			
TIME Schl. on Bottom	2400			

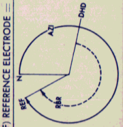
ROLL NO.	INTERVAL

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

(DHD) HIGH SIDE OF TOOL = Direction from center of tool to upper side of tool.
(N) NORTH = Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE = Direction from center of tool to #1 electrode.

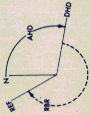
DEFINITIONS

(AZI) AZIMUTH OF REFERENCE ELECTRODE = Clockwise angle from N to REF.
(RBR) RELATIVE BEARING = Clockwise angle from DHD to REF.
(AHD) AZIMUTH OF HOLE DEV. (TOOL AXIS) = Clockwise angle from N to DHD.



LOW ANGLE UNIT ☐

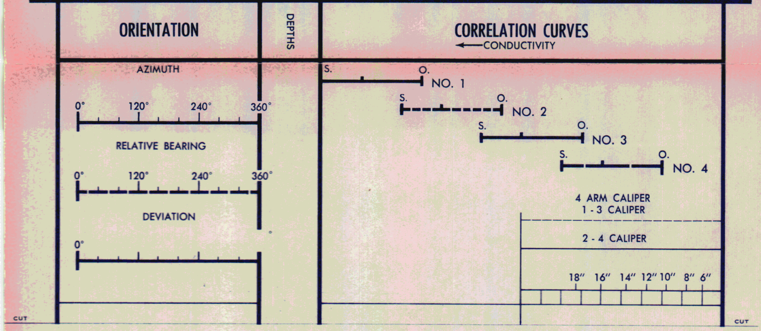
EXAMPLE
HDM - Low Angle Unit (0-36°)
AZI (solid curve) = 330°
RBR (dotted curve) = 230°
AHD = AZI − RBR = 330° − 230° = 100°



HIGH ANGLE UNIT ☒

EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD + RBR = 100° + 230° = 330°

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 Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.



PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DD		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)

-1.000 9.000

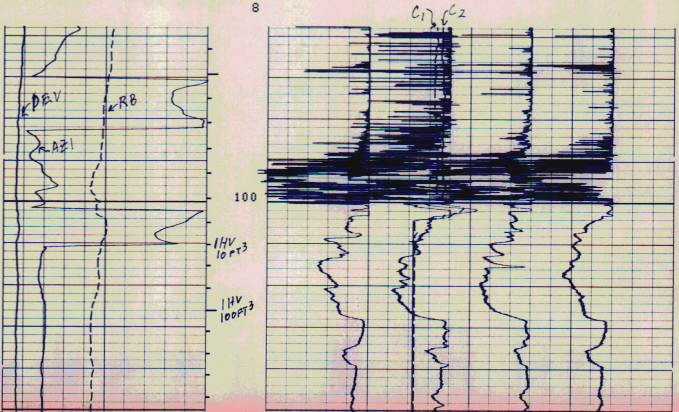
RB (DEG)

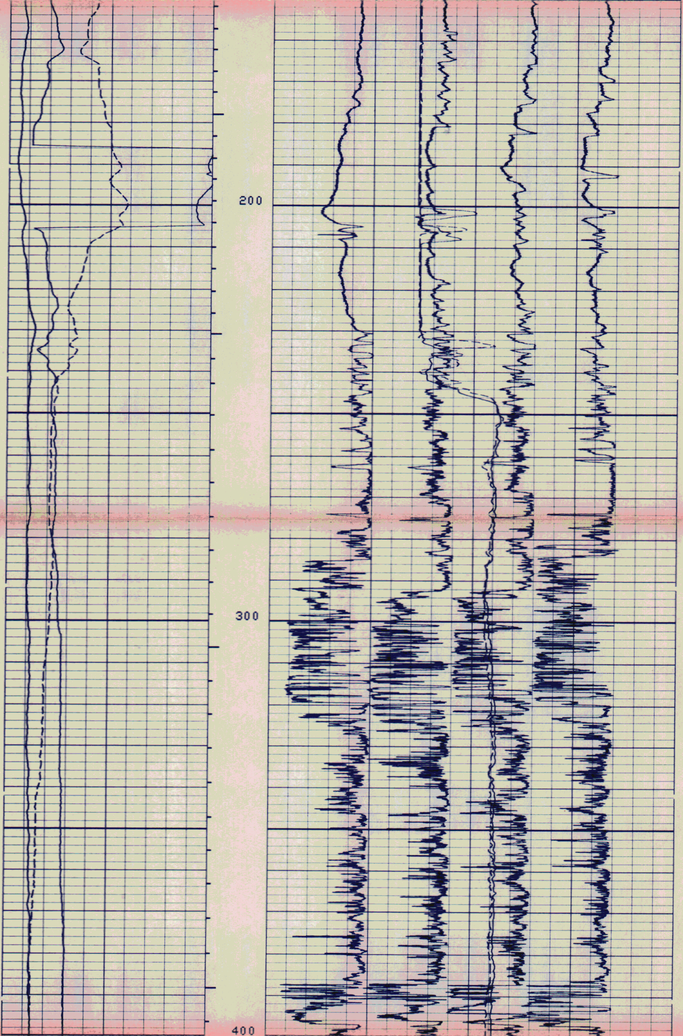
[redacted]

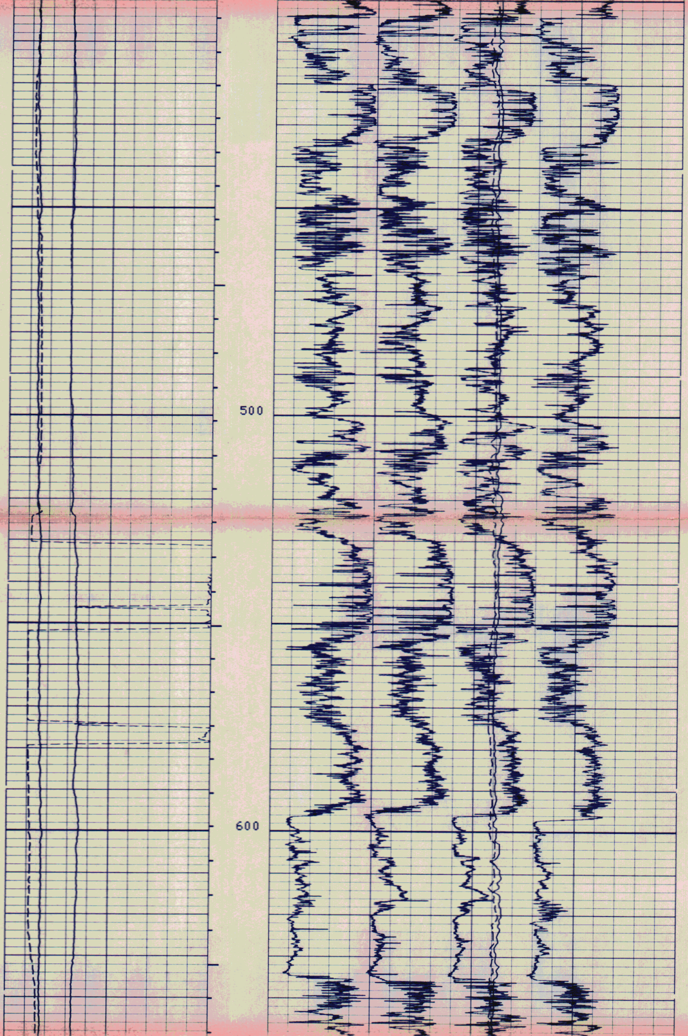
-40.00 360.0		26.00 6.000
AZIM(DEG)		C1 (INCH)
-40.00 360.0		26.00 6.000

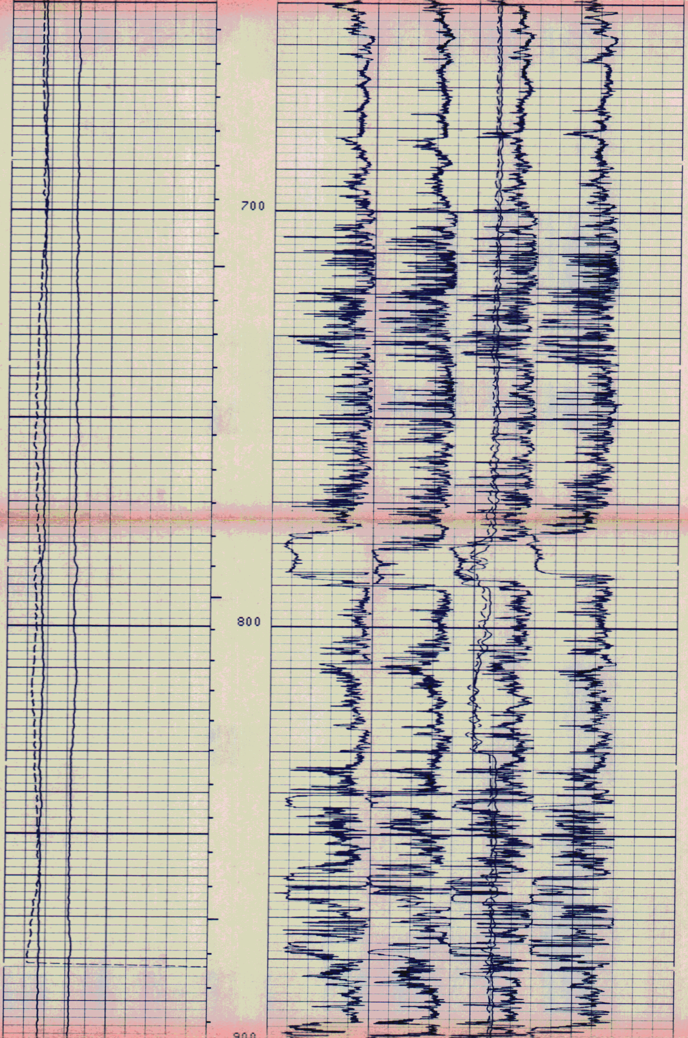
FILE

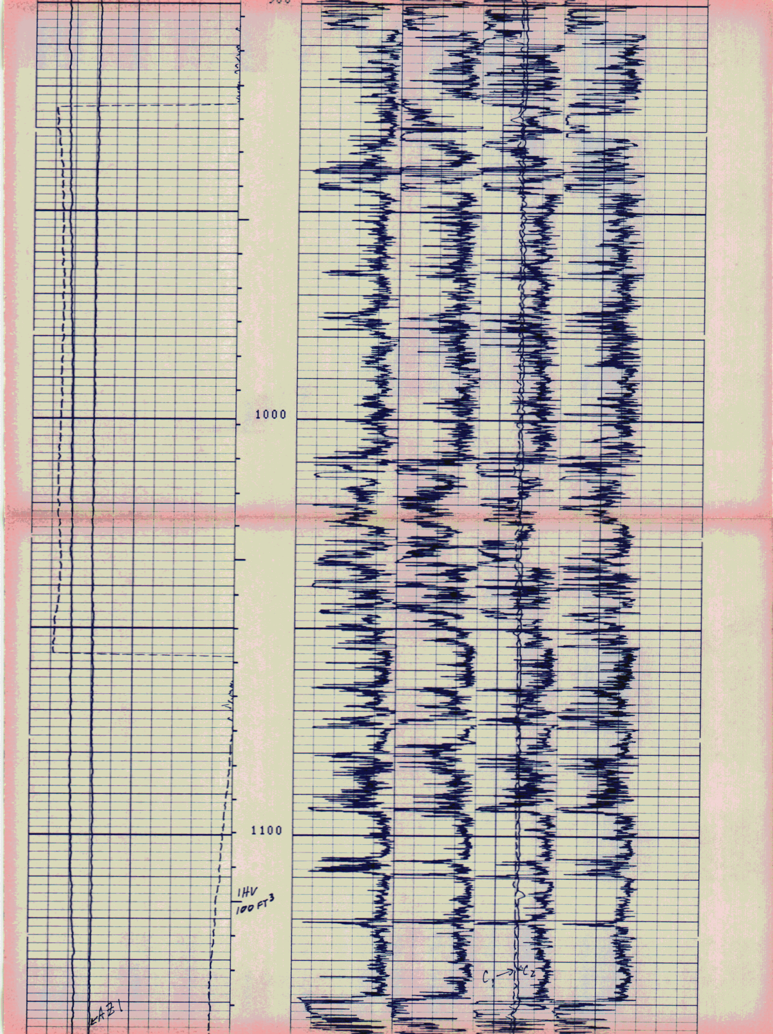
8

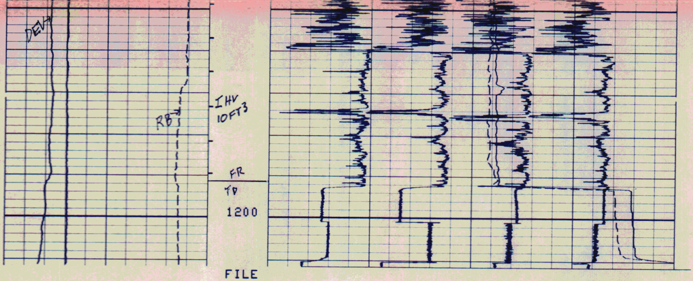












FILE

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DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
26.00 6.000
C1 (INCH)
26.00 6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

REPEAT SECTION

PARAMETERS

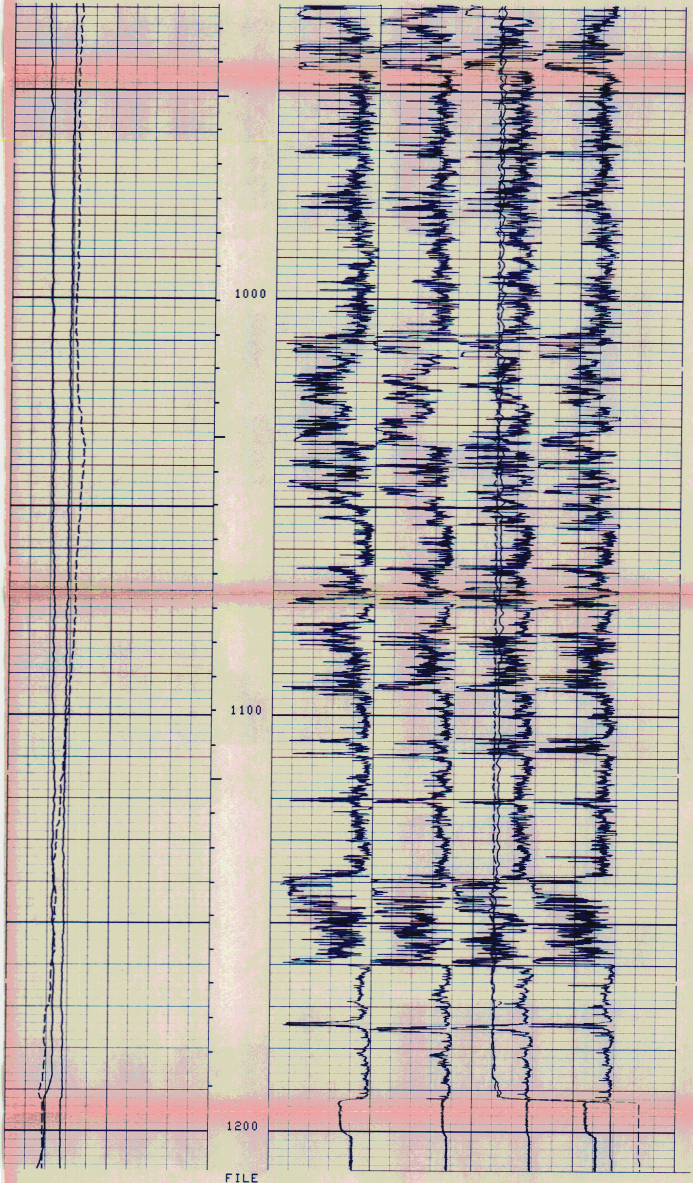
NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (INCH)
26.00 6.000
C1 (INCH)
26.00 6.000

FILE

7



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DEVI(DEG)			C2 (INCH)	
-1.000	9.000			
RB (DEG)				
-40.00	360.0	26.00		6.000
AZIM(DEG)			C1 (INCH)	
-40.00	360.0	26.00		6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

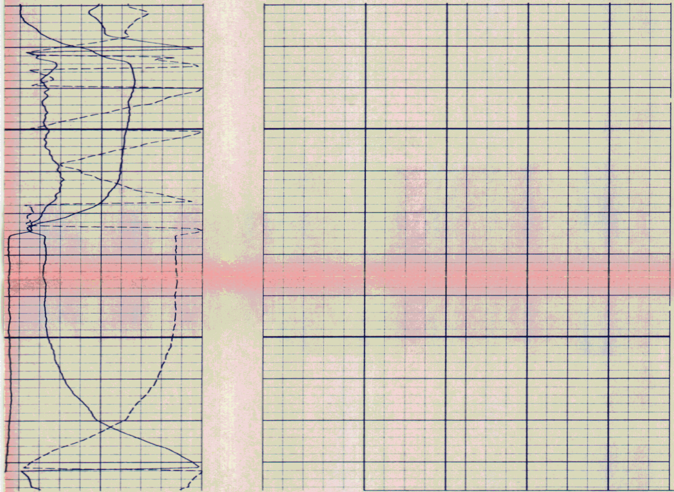
PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)			C2 (INCH)	
-1.000	9.000			
RB (DEG)				
-40.00	360.0	26.00		6.000
AZIM(DEG)			C1 (INCH)	
-40.00	360.0	26.00		6.000

FILE

6



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6

DEVI(DEG)	-1.000	9.000
RB (DEG)	-40.00	360.0
AZIM(DEG)	-40.00	360.0
C2 (INCH)	26.00	6.000
C1 (INCH)	26.00	6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

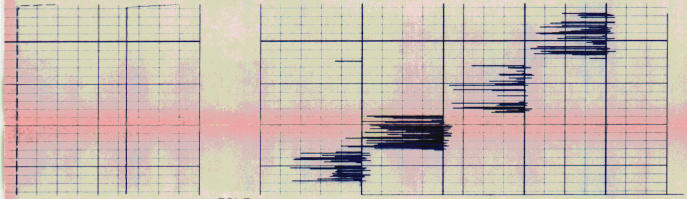
PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	72	BS	INCH	14.75
DO		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)	-1.000	9.000
RB (DEG)	-40.00	360.0
AZIM(DEG)	-40.00	360.0
C2 (INCH)	26.00	6.000
C1 (INCH)	26.00	6.000

FILE

3



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3

DEVI(DEG)	-1.000	9.000
RB (DEG)	-40.00	360.0
AZIM(DEG)	-40.00	360.0
C2 (INCH)	26.00	6.000
C1 (INCH)	26.00	6.000

PARAMETERS

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NAME   UNIT   VALUE        NAME   UNIT   VALUE        NAME   UNIT   VALUE


STYP          STAN         MCT    DEG    36           BS     INCH   14.75
DO            0.0          BHS           OPEN         FPHI          PHIX



              BEFORE SURVEY CALIBRATION SUMMARY

  PERFORMED:       80/08/16
  PROGRAM FILE: HDT     (VERSION     18.2     80/ 4/29)


 HDT              CALIPER CALIBRATION SUMMARY

            MEASURED                      CALIBRATED
          SMALL   LARGE                 SMALL     LARGE        UNITS
    C1     8.7    13.3                   8.0      12.0          IN
    C2     8.3    13.2                   8.0      12.0          IN
                       FILE

                         2
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