Schlumberger

MANFRIA-1 * WSS CHECKSHOT * RUN-1

CSU Field Log

COMPANY: AGIP

WELL: MANFRIA 1

FIELD: MANFRIA

NATION: ITALY
LOCATION: LAND SICILY

SEC: TWP: RGE:
LATITUDE: 37 07 00.0 N
LONGITUDE: 01 39 50.4 EMM

PERMANENT DATUM: MSL
ELEV. OF PERM. DATUM:
LOG MEASURED FROM: DF
16.4 M ABOVE PERM. DATUM
DRLG. MEASURED FROM: DF

ELEVATIONS-
KB: 16.4 M
DF: 16.4 M
GL: 6.0 M

DATE: 10 JUL 85
RUN NO: 1

OTHER SERVICES-

PROGRAM
TAPE NO:
26.4
SERVICE
ORDER NO:

DEPTH-DRILLER:
DEPTH-LOGGER:
BTM. LOG INTERVAL: 1370.0 M
TOP LOG INTERVAL: 20.0 M

CASING-DRILLER:	207M	1385 M	2902 M	3668 M
CASING-LOGGER:				
CASING:	24½"	18 5/8"	13 3/8"	9 5/8"
WEIGHT:	162 LB/F	96.50 LB/F	68.00 LB/F	43.500 LB/F
BIT SIZE:		23"	17 1/2"	12 1/4"

TYPE FLUID IN HOLE: AR
DENSITY: 1110 K/M3
VISCOSITY: 70.0 S
PH: 10.0
FLUID LOSS: 4.4 C3
TIME CIRC. STOPPED: 20:00 09-JUL
TIME LOGGER ON BTM.: 09:00 10-JUL

MAX. REC. TEMP: 41.0 DEGC

LOGGING UNIT NO: 2719
LOGGING UNIT LOC: SYR
RECORDED BY: A.BALANKURA

REMARKS:

DURATION OF LAST CIRCULATION = 2 H.
TOP FISH @ 1384 M.
GUN, HYDROPHONE OFFSET = 65 M., AZIMUTH = 20 DEG.
DEPTH FROM GROUND LEVEL: GUN = 3 M., HYDROPHONE = 3.5 M.
FAST SIGNAL THROUGH CASING IS PRESENT ABOVE 650 M.
DUE TO LACK OFF CEMENT(SEE CBL LOG IN 13 3/8"CASING)
ABOVE 300 M. NO DIRECT SIGNAL CAN BE DETECTED,
ONLY SIGNAL THROUGH CASING IS DETECTED.
SHOTS AT 190 M. ARE USED INSTEAD OF ONES AT 200 M. WHICH DO NOT GIVE A GOOD BREAK.

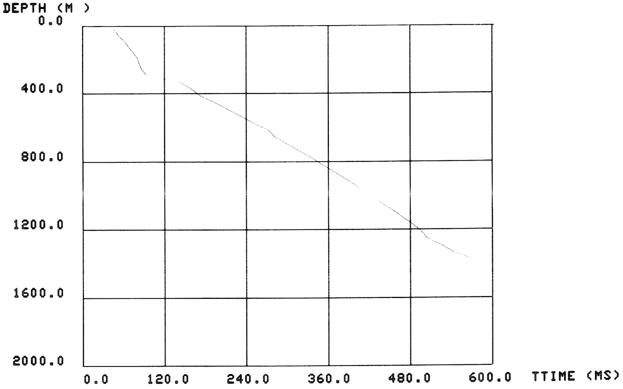
EQUIPMENT NUMBERS-

ECH-MCA	935	WSA-AB	975	CAH-A	878	WSM-B	1729
WDM-AB	845	WSI-A	781	WAC-B	821		

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.

CP 26.4 FILE 102
DATA ACQUIRED 00- -00 00:00

WST DEPTH VS TTIME CURVE



WST DEPTH VS TTIME SUMMARY

STACK NBR	DEPTH (M)	TTIME (MS)
45	20.0	46.8
44	60.0	54.3
43	100.0	63.9
42	120.0	67.2
41	160.0	75.5
40	190.0	81.0
32	210.0	82.9
1	210.0	81.6
31	250.0	86.6
30	290.0	93.7
29	330.0	141.3
1002	370.0	159.6
27	410.0	172.5
26	450.0	194.1
25	490.0	211.9
24	530.0	231.9
23	570.0	250.4
22	610.0	272.2
21	650.0	282.4
20	690.0	299.2
19	730.0	316.0
18	770.0	334.0
17	810.0	349.7
16	850.0	365.9
15	890.0	381.9
14	930.0	397.5
13	970.0	411.5
12	1010.0	426.0
1000	1010.0	425.0
11	1050.0	441.1
10	1090.0	456.8
9	1130.0	470.2
8	1170.0	484.8
7	1210.0	496.9
6	1250.0	505.0
5	1290.0	525.7

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   4              1330.0                  543.0
   3              1370.0                  569.3

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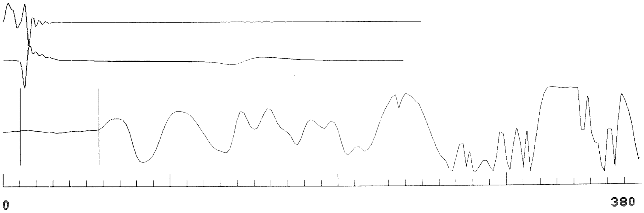
STACK # 45 @     20.0  M     7 /10 /85  14 :24    TT =      46.8 MS
          GEOPHONE               .005238   CM/SEC   @      56.3 MS
          SHOTS STACKED : 154  ,155 ,156
          FILTER : OFF   - OFF
```



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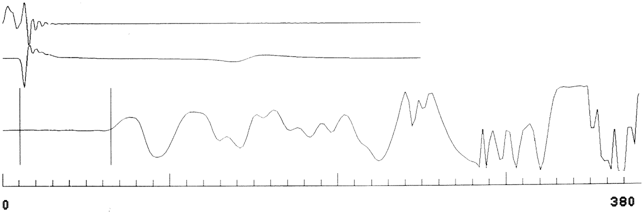
STACK # 44 @     60.0  M     7 /10 /85  14 :19    TT =      54.3 MS
          GEOPHONE               .004851   CM/SEC   @      63.8 MS
          SHOTS STACKED : 151  ,152 ,153
          FILTER : OFF   - OFF
```



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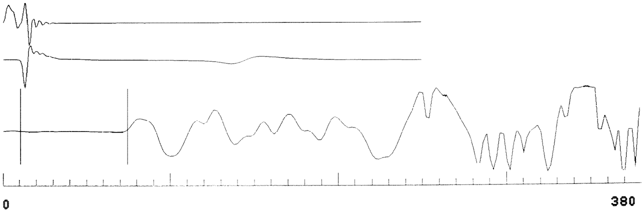
STACK # 43 @    100.0  M     7 /10 /85  14 :13    TT =      63.9 MS
          GEOPHONE               .004566   CM/SEC   @      73.3 MS
          SHOTS STACKED : 148  ,149 ,150
          FILTER : OFF   - OFF
```



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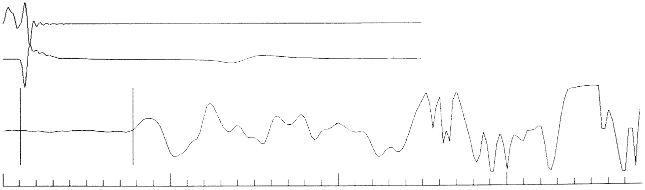
STACK # 42 @    120.0  M     7 /10 /85  14 :9     TT =      67.2 MS
          GEOPHONE               .004600   CM/SEC   @      76.7 MS
          SHOTS STACKED : 145  ,146 ,147
          FILTER : OFF   - OFF
```



0 380

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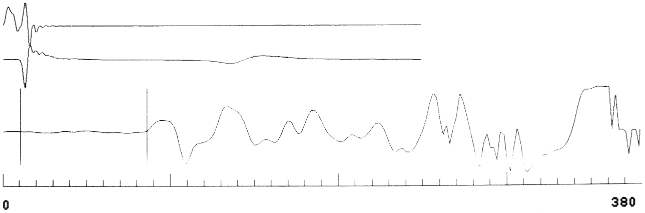
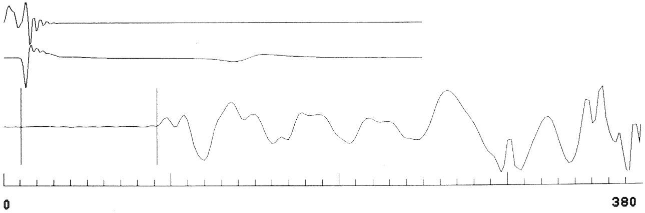
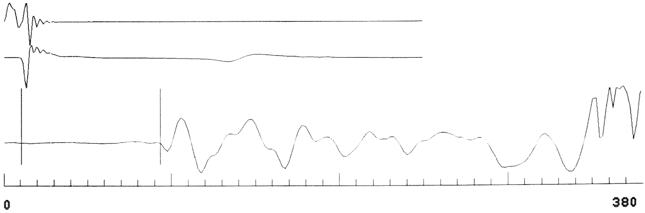
STACK # 41 @   160.0 M    7 /10 /85  14 :4   TT =    75.5 MS
          GEOPHONE          .005177  CM/SEC  @     85.0 MS
          SHOTS STACKED : 142 ,143 ,144
          FILTER : OFF   - OFF
```



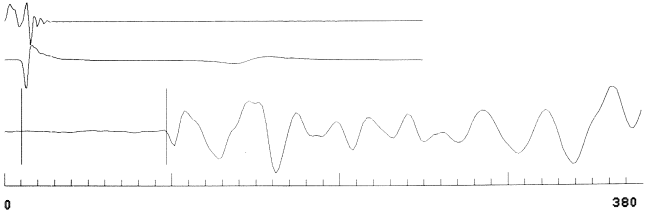
```
STACK # 40 @   190.0 M    7 /10 /85  13 :59  TT =    81.0 MS
          GEOPHONE          .005649  CM/SEC  @     90.4 MS
          SHOTS STACKED : 139 ,140 ,141
          FILTER : OFF   - OFF
```



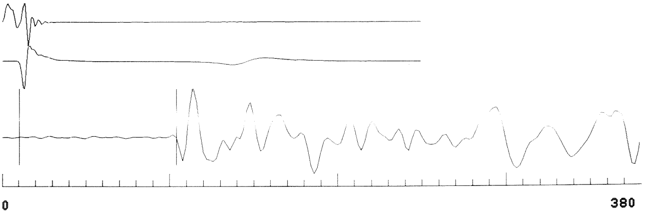
```
STACK # 32 @   210.0 M    7 /10 /85  12 :21  TT =    82.9 MS
          GEOPHONE          .005416  CM/SEC  @     92.4 MS
          SHOTS STACKED : 112 ,113 ,114
          FILTER : OFF   - OFF
```



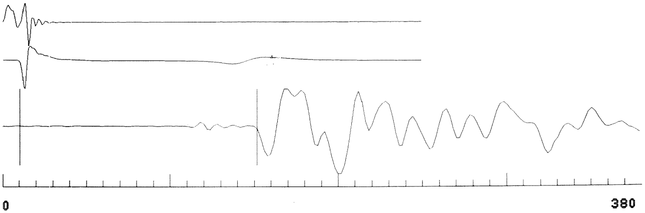
```
STACK # 31 @   250.0 M    7 /10 /85  11 :57  TT =    86.6 MS
          GEOPHONE          .003921  CM/SEC  @     96.0 MS
          SHOTS STACKED : 109 ,110 ,111
          FILTER : OFF   - OFF
```



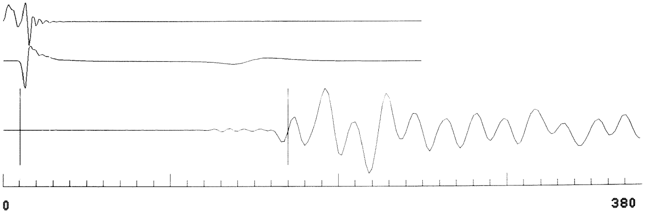
```
STACK # 30 @   290.0 M     7 /10 /85  11 :50   TT =     93.7 MS
           GEOPHONE            .001083  CM/SEC  @   103.1 MS
           SHOTS STACKED : 106 ,107 ,108
           FILTER : OFF  - OFF
```



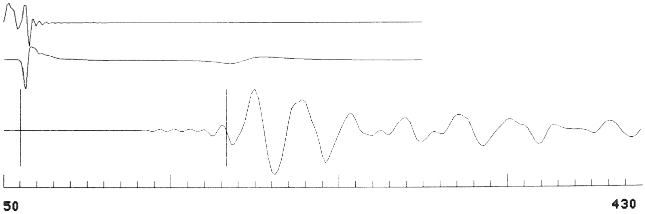
```
STACK # 29 @   330.0 M     7 /10 /85  11 :36   TT =    141.3 MS
           GEOPHONE            .001293  CM/SEC  @   150.6 MS
           SHOTS STACKED : 103 ,104 ,105
           FILTER : OFF  - OFF
```



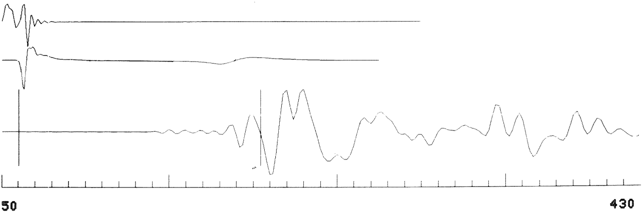
```
STACK # 1002 @   370.0 M     7 /10 /85  11 :29   TT =    159.6 MS
           GEOPHONE            .001350  CM/SEC  @   168.9 MS
           SHOTS STACKED : 100 ,101 ,102
           FILTER : OFF  - OFF
```



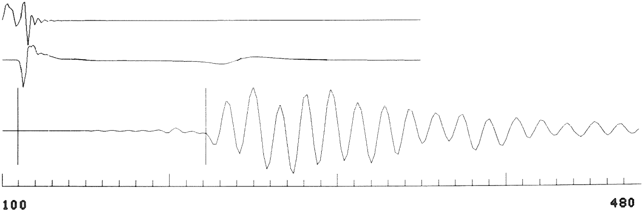
```
STACK # 27 @   410.0 M     7 /10 /85  11 :25   TT =    172.5 MS
           GEOPHONE            .002736  CM/SEC  @   181.9 MS
           SHOTS STACKED : 95 ,96 ,97 ,98 ,99
           FILTER : OFF  - OFF
```



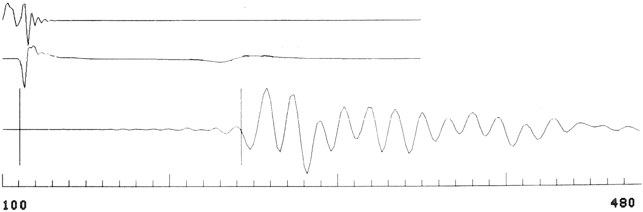
```
STACK # 26 @   450.0 M     7 /10 /85  11 :17   TT =    194.1 MS
           GEOPHONE            .000998  CM/SEC  @   203.4 MS
           SHOTS STACKED : 90 ,91 ,92 ,93 ,94
           FILTER : OFF  - OFF
```



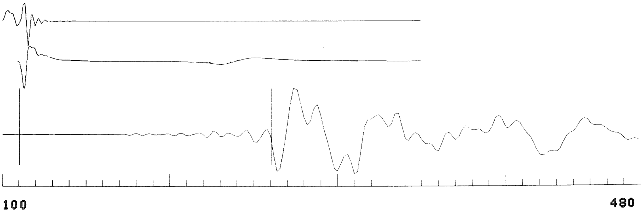
STACK # 25 @ 490.0 M 7 /10 /85 11 :6 TT = 211.9 MS
GEOPHONE .001585 CM/SEC @ 220.4 MS
SHOTS STACKED : 85 ,86 ,87 ,88 ,89
FILTER : OFF - OFF



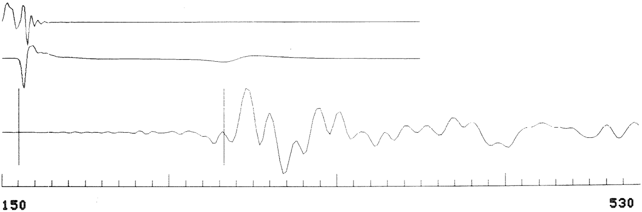
STACK # 24 @ 530.0 M 7 /10 /85 11 :0 TT = 231.9 MS
GEOPHONE .001060 CM/SEC @ 241.3 MS
SHOTS STACKED : 80 ,81 ,82 ,83 ,84
FILTER : OFF - OFF



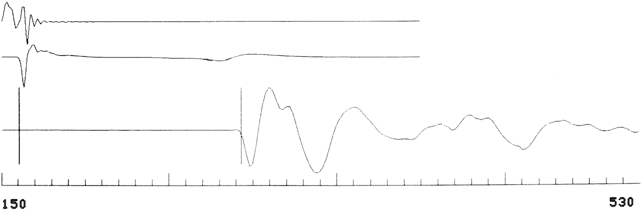
STACK # 23 @ 570.0 M 7 /10 /85 10 :52 TT = 250.4 MS
GEOPHONE .000698 CM/SEC @ 259.7 MS
SHOTS STACKED : 75 ,76 ,77 ,78 ,79
FILTER : OFF - OFF



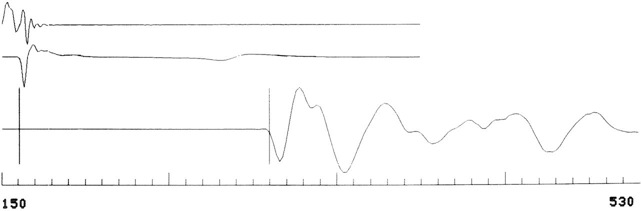
STACK # 22 @ 610.0 M 7 /10 /85 10 :43 TT = 272.2 MS
GEOPHONE .000720 CM/SEC @ 281.6 MS
SHOTS STACKED : 70 ,71 ,72 ,73 ,74
FILTER : OFF - OFF



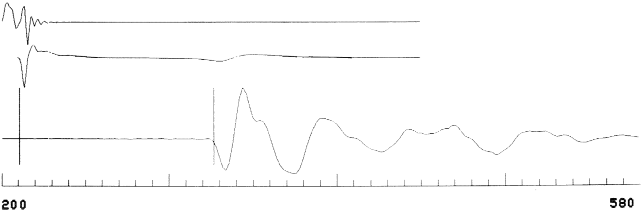
```
STACK # 21 @   650.0 M    7 /10 /85  10 :12   TT =   282.4 MS
           GEOPHONE             .000679  CM/SEC  @   291.8 MS
           SHOTS STACKED : 66 ;67 ;68
           FILTER : OFF  - OFF
```



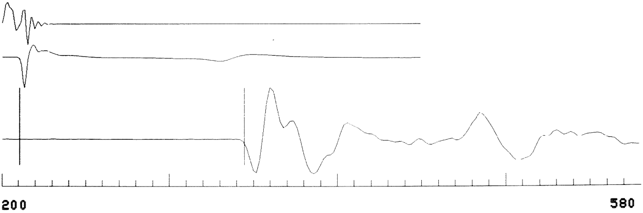
```
STACK # 20 @   690.0 M    7 /10 /85  10 :8    TT =   299.2 MS
           GEOPHONE             .000606  CM/SEC  @   308.6 MS
           SHOTS STACKED : 63 ;64 ;65
           FILTER : OFF  - OFF
```



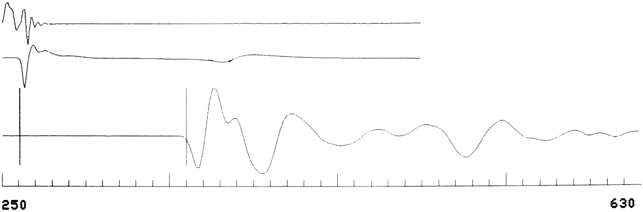
```
STACK # 19 @   730.0 M    7 /10 /85  10 :4    TT =   316.0 MS
           GEOPHONE             .000600  CM/SEC  @   325.5 MS
           SHOTS STACKED : 60 ;61 ;62
           FILTER : OFF  - OFF
```



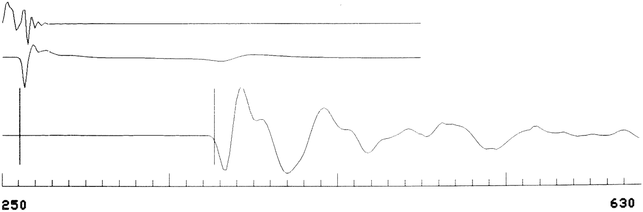
```
STACK # 18 @   770.0 M    7 /10 /85  10 :1    TT =   334.0 MS
           GEOPHONE             .000609  CM/SEC  @   343.4 MS
           SHOTS STACKED : 57 ;58 ;59
           FILTER : OFF  - OFF
```



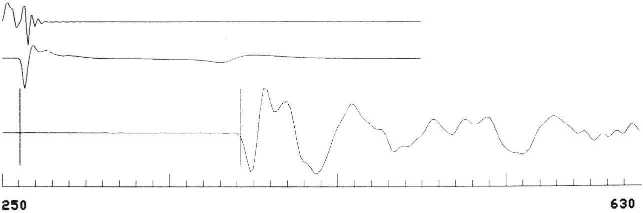
STACK # 17 @ 810.0 M 7 /10 /85 9 :56 TT = 349.7 MS
GEOPHONE .000573 CM/SEC @ 359.1 MS
SHOTS STACKED : 54 ;55 ;56
FILTER : OFF - OFF



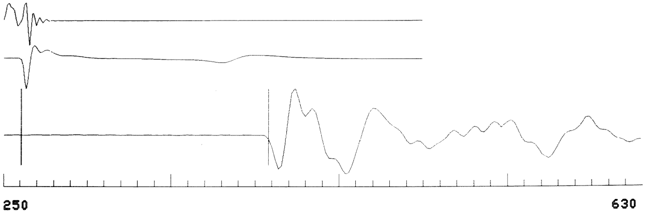
STACK # 16 @ 850.0 M 7 /10 /85 9 :52 TT = 365.9 MS
GEOPHONE .000501 CM/SEC @ 375.4 MS
SHOTS STACKED : 51 ;52 ;53
FILTER : OFF - OFF



STACK # 15 @ 890.0 M 7 /10 /85 9 :48 TT = 381.9 MS
GEOPHONE .000474 CM/SEC @ 391.3 MS
SHOTS STACKED : 48 ;49 ;50
FILTER : OFF - OFF



STACK # 14 @ 930.0 M 7 /10 /85 9 :44 TT = 397.5 MS
GEOPHONE .000507 CM/SEC @ 406.9 MS
SHOTS STACKED : 45 ;46 ;47
FILTER : OFF - OFF



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STACK # 13 @   970.0 M     7 /10 /85  9 :39   TT =   411.5 MS
         GEOPHONE           .000407  CM/SEC  @   420.9 MS
         SHOTS STACKED : 42 ,43 ,44
         FILTER : OFF  - OFF
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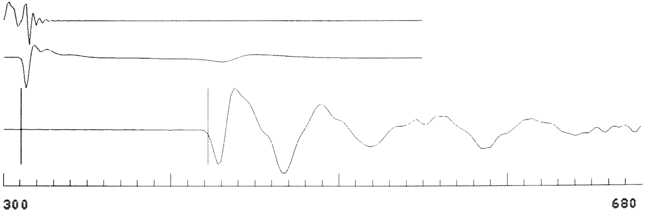

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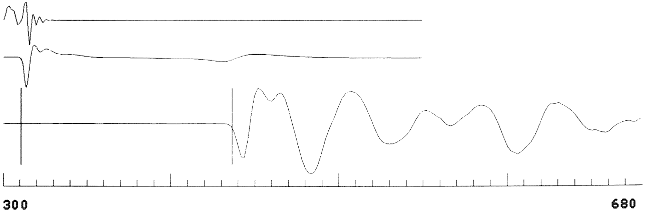
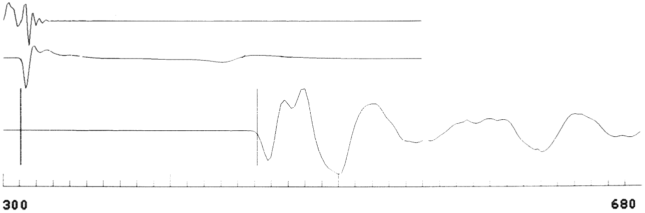
STACK # 12 @  1010.0 M     7 /10 /85  9 :35   TT =   426.0 MS
         GEOPHONE           .000323  CM/SEC  @   435.4 MS
         SHOTS STACKED : 39 ,40 ,41
         FILTER : OFF  - OFF
```



```
STACK # 11 @  1050.0 M     7 /10 /85  9 :31   TT =   441.1 MS
         GEOPHONE           .000373  CM/SEC  @   450.6 MS
         SHOTS STACKED : 36 ,37 ,38
         FILTER : OFF  - OFF
```



```
STACK # 10 @  1090.0 M     7 /10 /85  9 :26   TT =   456.8 MS
         GEOPHONE           .000328  CM/SEC  @   466.2 MS
         SHOTS STACKED : 33 ,34 ,35
         FILTER : OFF  - OFF
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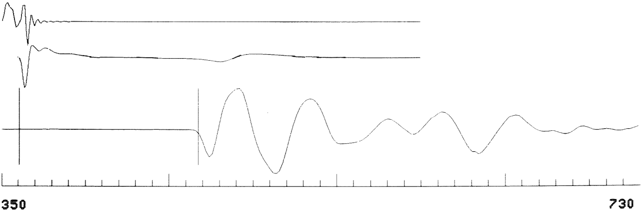

```
STACK # 9 @  1130.0 M     7 /10 /85  9 :22   TT =    470.2 MS
          GEOPHONE              .000290  CM/SEC  @   479.6 MS
          SHOTS STACKED : 30 ,31 ,32
          FILTER : OFF  - OFF
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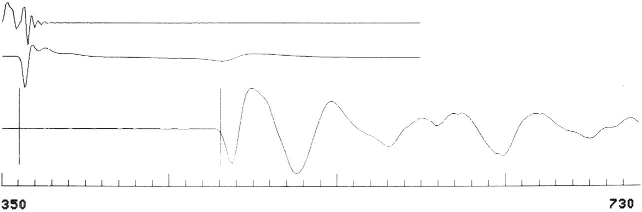

```
STACK # 8 @  1170.0 M     7 /10 /85  9 :16   TT =    484.8 MS
          GEOPHONE              .000269  CM/SEC  @   494.3 MS
          SHOTS STACKED : 27 ,28 ,29
          FILTER : OFF  - OFF
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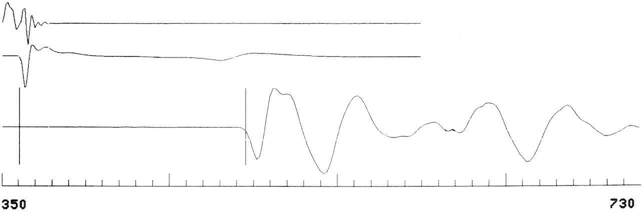

```
STACK # 7 @  1210.0 M     7 /10 /85  9 :9   TT =    496.9 MS
          GEOPHONE              .000194  CM/SEC  @   506.3 MS
          SHOTS STACKED : 24 ,25 ,26
          FILTER : OFF  - OFF
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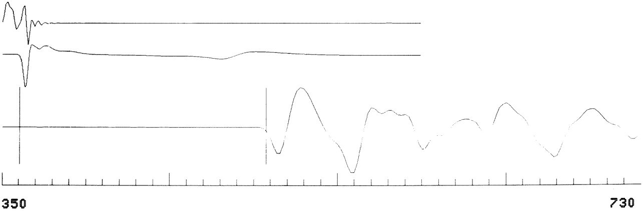

```
STACK # 6 @  1250.0 M     7 /10 /85  9 :2   TT =    505.0 MS
          GEOPHONE              .000125  CM/SEC  @   514.4 MS
          SHOTS STACKED : 21 ,22 ,23
          FILTER : OFF  - OFF
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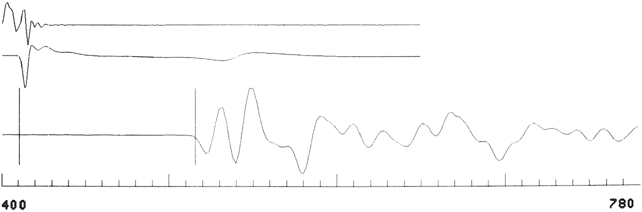
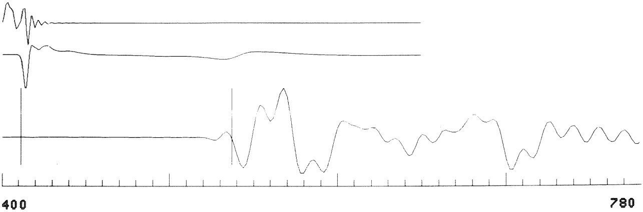
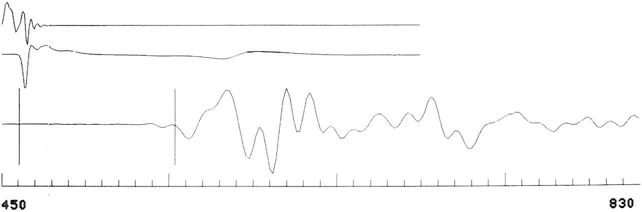


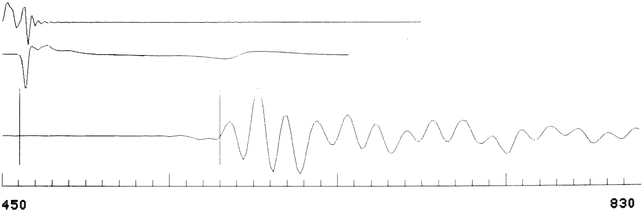
STACK # 5 @ 1290.0 M 7 /10 /85 8 :55 TT = 525.7 MS
GEOPHONE .000125 CM/SEC @ 535.9 MS
SHOTS STACKED : 18 ,19 ,20
FILTER : OFF - OFF



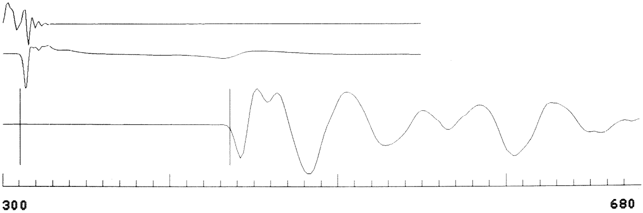
STACK # 4 @ 1330.0 M 7 /10 /85 8 :48 TT = 543.0 MS
GEOPHONE .000117 CM/SEC @ 552.5 MS
SHOTS STACKED : 15 ,16 ,17
FILTER : OFF - OFF



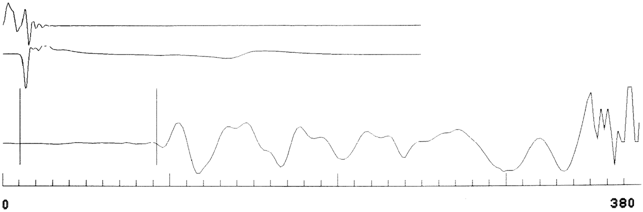
STACK # 3 @ 1370.0 M 7 /10 /85 8 :39 TT = 569.3 MS
GEOPHONE .000282 CM/SEC @ 578.7 MS
SHOTS STACKED : 12 ,13 ,14
FILTER : OFF - OFF



STACK # 1000 @ 1010.0 M 7 /10 /85 8 :22 TT = 425.0 MS
GEOPHONE .000336 CM/SEC @ 434.5 MS
SHOTS STACKED : 8 ,9 ,10
FILTER : OFF - OFF



```
STACK # 1 @   210.0 M     7 /10 /85  7 :57   TT =    81.6 MS
           GEOPHONE          .004954  CM/SEC  @    91.1 MS
           SHOTS STACKED : 2 ,3 ,4 ,5 ,6
           FILTER : OFF  - OFF
```



FILE # 101

```
              BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:      85/07/10
   PROGRAM FILE: WSS     (VERSION    26.4    84/09/19)


 WSTA                 CALIPER CALIBRATION SUMMARY

             MEASURED                         CALIBRATED
           SMALL    LARGE                  SMALL      LARGE         UNITS
   CALI     8.0     15.1                    8.0       12.0           IN

    CP 26.4             FILE     0
```

```
          S E I S M I C     Q U I C K L O O K


          GEOMETRY   PARAMETERS   LIST



      SURFACE VELOCITY                               :   10000.0 M/S
      SRD DEPTH FROM SCHLUMBERGER ZERO               :      16.4 M
      HYDRO DEPTH FROM SCHLUMBERGER ZERO             :      13.9 M
      GUN DEPTH FROM SCHLUMBERGER ZERO               :      13.4 M
      GUN OFFSET                                     :      65.0 M
      GUN AZIMUTH                                    :      20.0 DEG
```

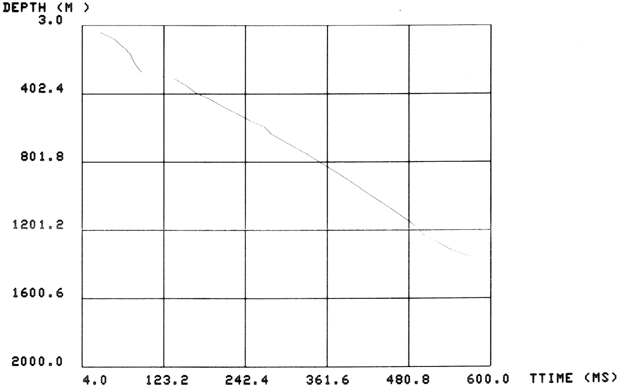
WST DEPTH VS TTIME SUMMARY

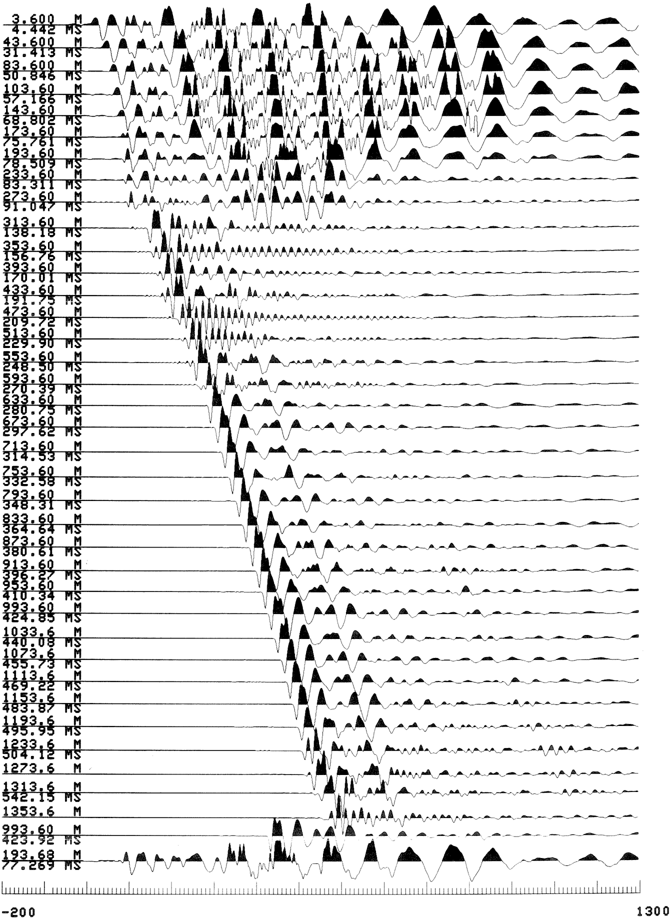
```
************************************************************************
*  STACK    MEASURED   MEASURED    TVD (M)   CORRECTED      INTERVAL   *
*   NBR     DEPTH (M)  TTIME (MS)            TTIME (MS)     VEL (M/S)  *

*     45      20.000       46        3.600          4       1483.0     *
*     44      60.000       54       43.600         31       2058.3     *
*     43      100.00       63       83.600         50       3164.3     *
*     42      120.00       67       103.60         57       3437.6     *
*     41      160.00       75       143.60         68       4311.0     *
*     40      190.00       81       173.60         75       7279.4     *
*     32      210.00       82       193.60         78                  *
*      1      210.08       81       193.68         77       6605.7     *
*     31      250.00       86       233.60         83       5171.1     *
*     30      290.00       93       273.60         91       848.55     *
*     29      330.00      141       313.60        138       2153.2     *
*   1002      370.00      159       353.60        156       3017.4     *
*     27      410.00      172       393.60        170       1839.8     *
*     26      450.00      194       433.60        191       2227.0     *
*     25      490.00      211       473.60        209       1981.3     *
*     24      530.00      231       513.60        229       2151.0     *
*     23      570.00      250       553.60        248       1827.1     *
*     22      610.00      272       593.60        270       3861.5     *
*     21      650.00      282       633.60        280       2371.2     *
*     20      690.00      299       673.60        297       2365.8     *
*     19      730.00      316       713.60        314       2215.1     *
*     18      770.00      334       753.60        332       2543.6     *
*     17      810.00      349       793.60        348       2449.0     *
*     16      850.00      365       833.60        364       2504.7     *
*     15      890.00      381       873.60        380       2555.2     *
*     14      930.00      397       913.60        396       2841.6     *
*     13      970.00      411       953.60        410       2757.2     *
*     12      1010.0      426       993.60        424       2626.8     *
*     11      1050.0      441       1033.6        440       2555.5     *
*     10      1090.0      456       1073.6        455       2964.5     *
*      9      1130.0      470       1113.6        469       2731.5     *
*      8      1170.0      484       1153.6        483       3309.6     *
*      7      1210.0      496       1193.6        495       4897.7     *
*      6      1250.0      505       1233.6        504       1929.8     *
*      5      1290.0      525       1273.6        524       2312.1     *
*      4      1330.0      543       1313.6        542       1522.0     *
*      3      1370.0      569       1353.6        568        0.0       *

************************************************************************
```

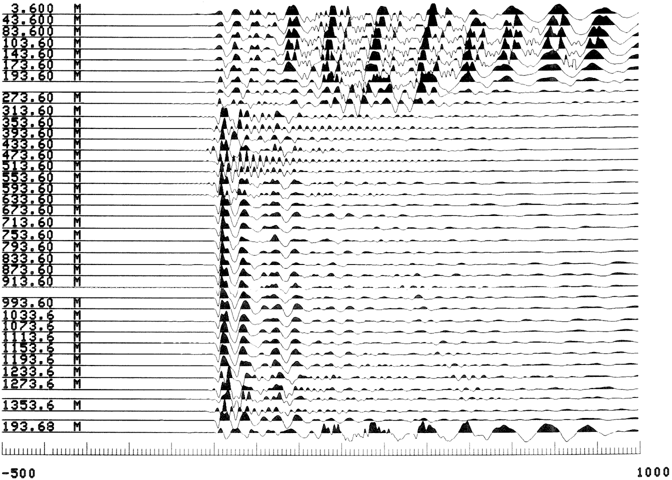
TVD VS CORRECTED TTIME CURVE





- STACKED DATA - CORRECTED TO SRD & TVD
ONE WAY TIME PLOT

FILE # 101



- STACKED DATA - CORRECTED TO SRD & TVD
ARBITRARY ORIGIN PLOT
ARBITRARY ORIGIN = - 500 MS

FILE # 101