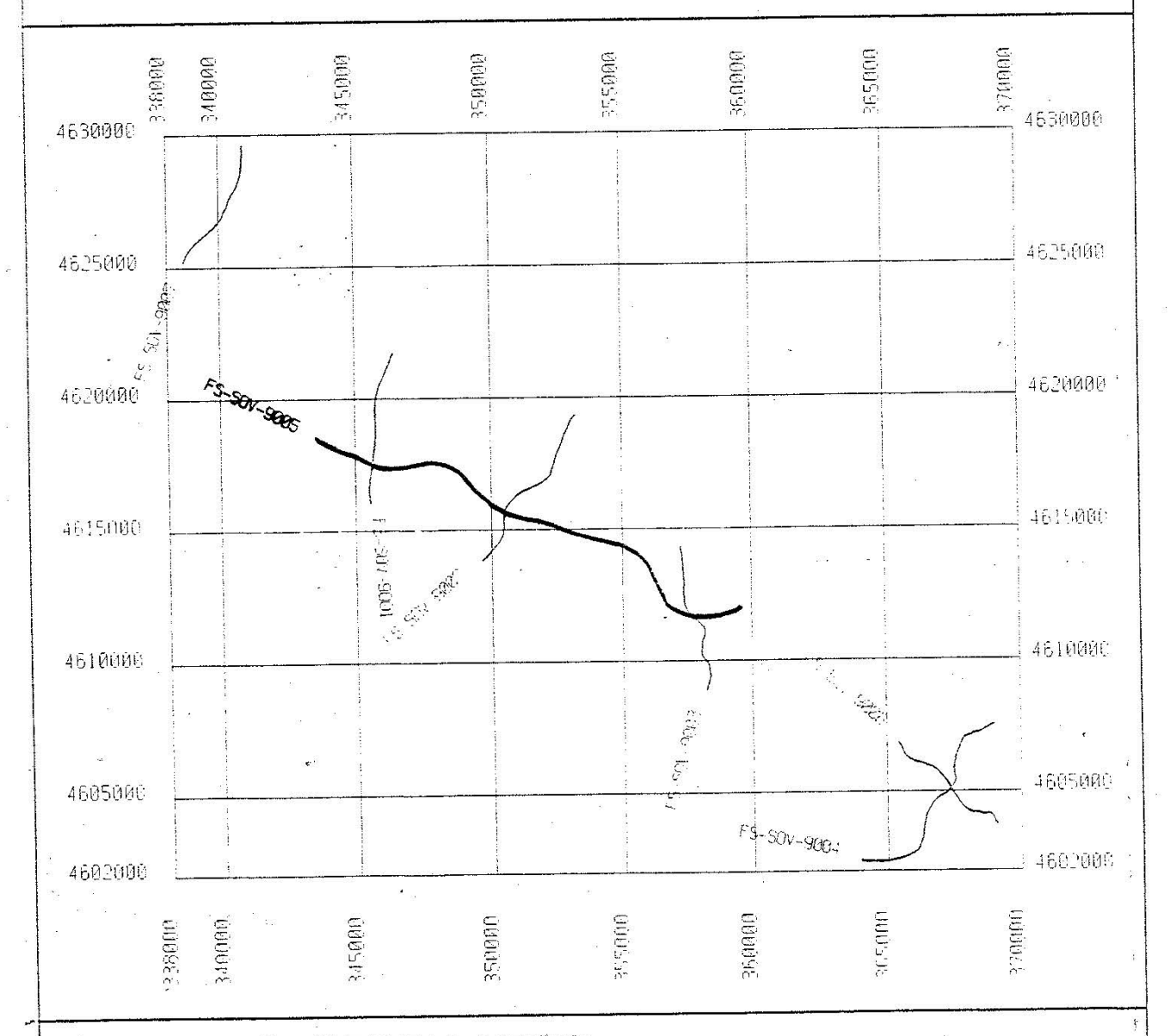
Simon Geophysical Services
Simon-Horizon Ltd

SOVEREIGN OIL & GAS (ITALY) S.R.L.

LINE : FS-SOV-9005
CDP'S : 1 - 1235
AREA : FIUME SACCO, ITALY

FINAL STACK



FIELD PARAMETERS

RECORDED BY : SIMON-HORIZON LTD
PARTY NO. : LC5
RECORDING DATE : DECEMBER 1990

SOURCE VIBROSEIS

SOURCE TYPE	: VIBROSEIS	SWEEP FREQUENCIES	: 10-70 Hz
NO. OF VIBRATORS	: 4	SWEEP LENGTH	: 26 S
NO. OF SWEEPS	: 5	VIB SEPARATION	: 12 M < B >
MOVE UP PER SWEEP	: 5 M <A>	ARRAY LENGTH	: 56 M
V.P. INTERVAL	: 30 M		
CENTRE OF ENERGY	: 15 M IN FRONT OF STATION <C>		

SOURCE ARRAY

```
--------------+-------------------------------->CENTRE OF GEOPHONE ARRAY
            <   C   >
                        < B >
        []      []      []      []
        <A>
        []      []      []      []
        []      []  •   []      []
        []      []      []      []
        []      []      []      []

        < -----------------------  >    TOTAL ARRAY LENGTH = 56 M
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RECEIVERS

TRACES PER RECORD	: 120	ARRAY LENGTH	: 26.75 M
STATION INTERVAL	: 30 M	PATTERN	: 2 STRINGS OF 12 PHONES
GEOPHONES/STATION	: 24		
GEOPHONE TYPE	: SM4U 20Hz	SPLIT SPREAD	: 60/60
NEAR TRACE OFFSET	: 75 M	FAR TRACE OFFSET	: 1845 M

RECEIVER ARRAY

```
  <              TOTAL ARRAY LENGTH 26.75 M                  >

  1.25 M
  < >
  X  X  X  X  X  X  X  X  X  X  X  X**X  X  X  X  X  X  X  X  X  X  X
                                   :------>CENTRE OF GEOPHONE ARRAY
```

RECORDING

INSTRUMENT TYPE	: SN348/CS2502	RECORD LENGTH	: 5 S
SAMPLE RATE	: 2 MS.	FORMAT	: SEGB 6250 BPI
LOW CUT FILTER	: 8 Hz 12 dB/OCT	HIGH CUT FILTER	: 125 Hz 72 dB/OCT
NOTCH FILTER	: OUT		

POLARITY: UPWARD MOVEMENT OF GEOPHONE RECORDED AS NEGATIVE VALUE ON TAPE

PROCESSING SEQUENCE

PROCESSED BY : SIMON-HORIZON LTD
DATE : DECEMBER 1990 - MAY 1991
PROCESSED TO : 5 S
DISPLAYED TO : 5 S
SAMPLE RATE : 4 MS.

1. DEMULTIPLEX : USING SEGBDMX TO HORIZON INTERNAL FORMAT
   AMPLITUDE COMPENSATION 9T+20LOG(T)+90 dB TO 2000 MS.
2. RESAMPLE : TO 4 MS.
3. CDP GATHER AND TRACE EDIT : CROOKED LINE TECHNIQUE
   NOMINAL 60 FOLD
4. FIELD STATICS : DIFFERENTIAL CORRECTIONS TO FLOATING DATUM PLANE
5. DECONVOLUTION : BAND LIMITED 10 - 70 Hz.
   OPERATOR LENGTH 92 MS.
   PREDICTIVE GAP 14 MS.
   DESIGN WINDOW
   NEAR TRACE 200 - 2900 MS.
   FAR TRACE 700 - 3000 MS.
   APPLICATION WINDOW
   NEAR TRACE 0 - 5000 MS.
   FAR TRACE 600 - 5000 MS.
   WHITE NOISE 1 %
6. 1ST VELOCITY ANALYSIS : CONSTANT VELOCITY STACKS
7. NMO APPLICATION :
8. MUTE : OFFSET (M) 150, 240, 540, 780, 960, 1320, 1860
   TIME (MS) 0, 140, 260, 500, 580, 700, 900
   ALL TIMES FOLLOWED BY 30 MS. TAPER INTO LIVE DATA
9. SCALING : FIXED LENGTH WINDOW OF 400 MS.
10. CORRECTION TO FINAL DATUM : FROM FLOATING DATUM PLANE TO MEAN SEA LEVEL
11. RESIDUAL STATICS : SURFACE CONSISTENT
    MAXIMUM STATIC +/- 30 MS.
12. DIP MOVE OUT : USING 30 OFFSET PLANES
13. 2ND VELOCITY ANALYSIS : CONSTANT VELOCITY STACKS
    (FROM FLOATING DATUM PLANE)
14. RESIDUAL STATICS : CDP CONSISTENT
    MAXIMUM STATIC +/- 6 MS.
15. CDP STACK : NOMINAL FOLD 60
16. FX-NOISE ATTENUATION : FX PREDICTIVE RANDOM NOISE ATTENUATION
17. DECONVOLUTION : OPERATOR LENGTH 100 MS.
    PREDICTIVE GAP 32 MS.
    DESIGN WINDOW 0 - 2200 MS.
    APPLICATION WINDOW 0 - 5000 MS.
    WHITE NOISE 1 %
18. BANDPASS FILTERS :

TIME (MS)	PASSBAND (Hz)
0 - 500	20.25-80.96
1000	20.25-70.84
1300	20.25-60.72
1500	20.25-50.60
1700	16.20-50.60
2000	14.18-50.60
2500	14.18-45.54
3500 - 5000	11.14-40.48

19. TAU-P DIP FILTER : USING 70% MIXBACK OF ORIGINAL TRACE.
20. SCALING : DUAL WINDOW AGC METHOD WITH LENGTHS OF 1000 AND 250 MS. SHORT WINDOW STOPPED AT 1500 MS.
    70% EQUALISATION APPLIED

TOTAL STATIC CORRECTIONS : SUM OF DIFFERENTIAL, FINAL CORRECTIONS AND RESIDUAL STATICS.

DISPLAY PARAMETERS

HORIZONTAL SCALE : 1: 12.500
VERTICAL SCALE : 10 CM/SEC.
GAIN : 1400
BIAS : 5 %
POLARITY : NEGATIVE NUMBER PLOTTED AS WHITE TROUGH
JOB NO. : L3.560

0.0 0.5 1.0 KILOMETRES