MIGRATION VELOCITIES AT CDP 103

TIME ms	V-RMS m/s	V-INT m/s
500	1480	1480
1150	1668	1799
1400	1775	2201
1650	1903	2502
3650	3568	4500
5000	4005	4999

MIGRATION VELOCITIES AT CDP 252

TIME ms	V-RMS m/s	V-INT m/s
305	1480	1480
1093	1717	1800
1550	1872	2199
1920	2008	2499
3850	3487	4499
5000	3887	4998

MIGRATION VELOCITIES AT CDP 365

TIME ms	V-RMS m/s	V-INT m/s
205	1480	1480
1050	1742	1800
1800	1946	2200
2250	2069	2501
3836	3299	4500
5000	3764	4999

MIGRATION VELOCITIES AT CDP 480

TIME ms	V-RMS m/s	V-INT m/s
190	1480	1480
992	1743	1800
1900	1975	2200
2400	2095	2499
3822	3208	4500
5000	3709	5000

MIGRATION VELOCITIES AT CDP 660

TIME ms	V-RMS m/s	V-INT m/s
110	1480	1480
900	1764	1800
1860	2001	2200
2200	2086	2500
3800	3323	4499
5000	3794	5001

MIGRATION VELOCITIES AT CDP 838

TIME ms	V-RMS m/s	V-INT m/s
100	1480	1480
800	1763	1800
1700	2006	2200
1910	2066	2499
3600	3431	4500
5000	3934	5000

MIGRATION VELOCITIES AT CDP 980

TIME ms	V-RMS m/s	V-INT m/s
95	1480	1480
703	1760	1800
1600	2019	2201
1800	2078	2500
3551	3489	4500
5000	3986	5000

MIGRATION VELOCITIES AT CDP 1130

TIME ms	V-RMS m/s	V-INT m/s
90	1480	1480
600	1756	1800
1400	2022	2200
1680	2109	2499
3500	3559	4500
5000	4046	5001

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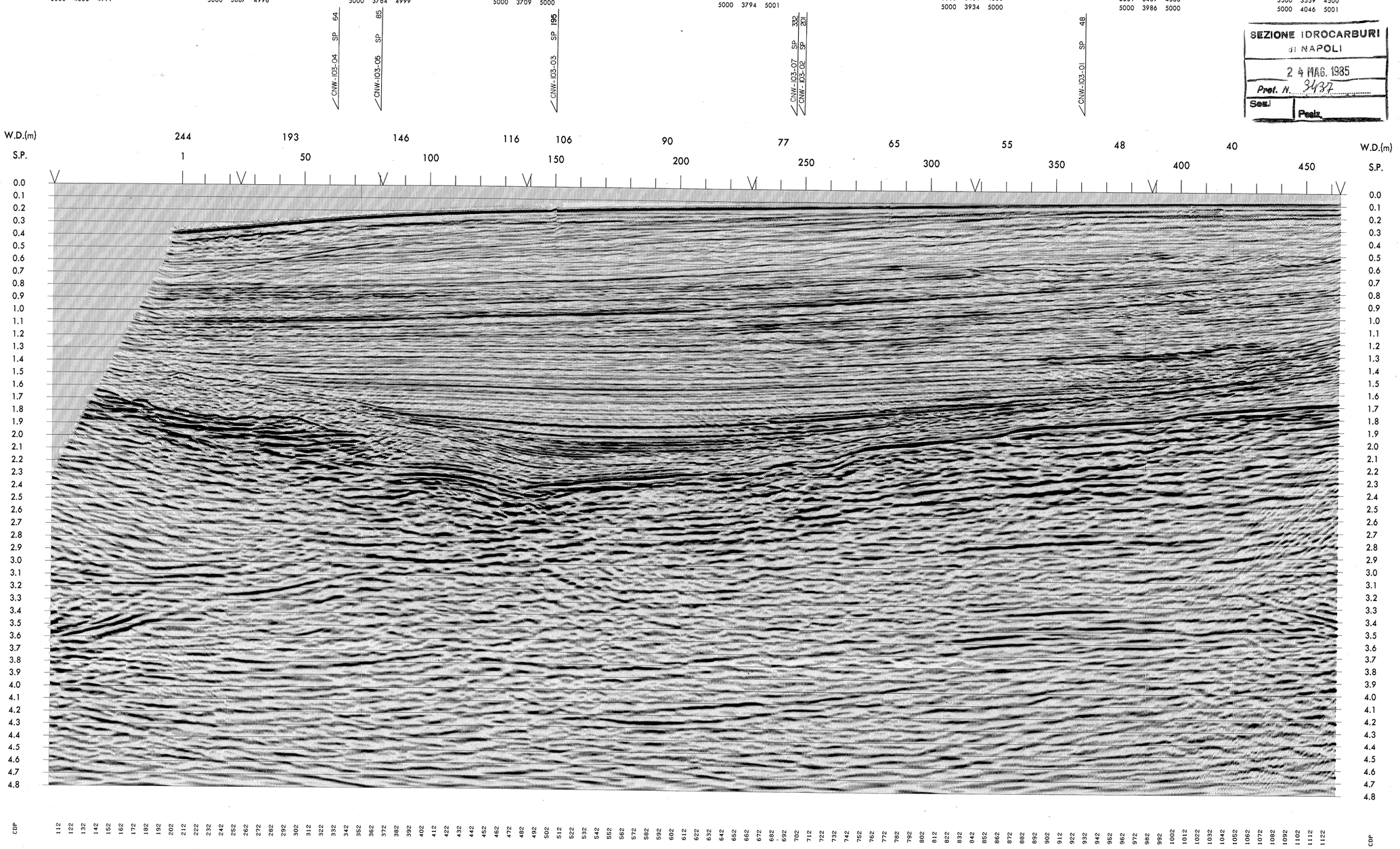


MERLIN GEOPHYSICAL COMPANY LIMITED

DATE: 09/16/83

CNW-103-06 MIGRATED STACK

CANADA NORTHWEST (CNW)
ITALIANA SPA

line: CNW-103-06 sp: 1-465
area: OFFSHORE SICILY
PERMIT CR.103.CN
title: 5000% MIGRATED STACK
direction: → (NNE)

MERLIN GEOPHYSICAL COMPANY LTD

ACQUISITION:

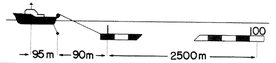
SHOT BY: SEISMIC PROFILERS M.V. NINA PROFILER (JUNE 1983)

ENERGY SOURCE:
- type: wide airgun array
- pop interval: 25m
- shot point interval: 25m
- source depth: 7.5m
- source volume: 3640 cu.ins

RECEIVING ARRANGEMENT:
- fold of recording: 50
- no. of groups: 100 — interval 25m
- cable length: 2500m — depth 8.0m
- near trace: 1 — offset 90m

INSTRUMENTATION:
- recording system: DFS V
- gain type: I.F.P.
- filters: low cut: 3.5 Hz — slope 18 dB/octave
- high cut: 128 Hz — slope 72 dB/octave
- record format: segB. 1600 bpi, 100 channels
- record length: 6s
- sample rate: 2ms

POSITIONING SYSTEM:
- primary: TRISPONDER — secondary: SATNAV



PROCESSING:

PROCESSED BY: MERLIN GEOPHYSICAL CO. LTD., WOKING, ENGLAND. (SEPTEMBER 1983; CONTRACT 401)

1. DEMULTIPLEX
2. 2MS TO 4MS SUBSAMPLE:
   - anti alias filter: 90(36)Hz (dB/oct)
3. STATIC CORRECTIONS:
   - source and receiver depth: +13ms
4. DECONVOLUTION BEFORE STACK:
   - pre-deconvolution amplitude scaling: 12dB/s exp to 3.0s
   - type: minimum phase least squares inverse; zone I — zone II
   - autocorrelation window length: 1450ms — 2200ms
   - max. prediction lag: 240ms — 240ms
   - min. prediction lag: 12ms — 12ms
   - post-deconvolution inverse scaling: −12dB/s exp. to 3.0s
5. NMO CORRECTION:
   - velocity derivation: contoured semblance spectra
   - offset dependent mute
6. STACK:
   - type: standard mean amplitude CDP
   - coverage: 5000%
   - space variant geometrical divergence compensation
7. DECONVOLUTION AFTER STACK:
   - type: minimum phase least squares inverse; zone I — zone I
   - autocorrelation window length: 1800ms — 2000ms
   - max. prediction lag: 240ms — 240ms
   - min. prediction lag: 60ms — 60ms
8. WAVE EQUATION MIGRATION:
   - finite difference solution: 48ms depth step
   - pre-migration filter: 8(24)-80(36)Hz(dB/oct)
   - migration velocity derivation: interval velocity model
9. SPACE TIME VARIANT FILTER:
   - sp 1 — time (ms) — low cut hz (dB/oct) — high cut hz (dB/oct)
   - filters linearly interpolated in space and time, cuts and slopes specified at −3dB point.
   - 450 — 10(18) — 80(36)
   - 1700 — 8(24) — 60(36)
   - 3100 — 8(24) — 30(36)
10. TWO DIMENSIONAL FILTER:
    - number of adjacent traces: 7
    - passband: +8 to −8ms dip per trace
    - percentage input feedback: 70
11. AMPLITUDE BALANCE:
    - a) general amplitude trend analysis and compensation
    - b) robust AGC

DISPLAY:

- system: SCITEX laser plotter
- vertical scale: 10.0 cm/sec; 5.0 cm/sec
- horizontal scale: 1:12500 (10 traces/cm); 1:25,000 (20 traces/cm)
- gain: 2.5dB ; 1.0dB
- bias: 10% ; 5%
- polarity: compression : negative : trough
- datum plane: sea level
- shotpoint location: source position