UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

DATA REPORT FOR THE 1993 MENDOCINO TRIPLE JUNCTION SEISMIC EXPERIMENT

By

N.J. Godfrey, B.C. Beaudoin, C. Lendl,
A. Meltzer, and J. Luetgert

OPEN-FILE REPORT 95-275

This report is preliminary snd has not been reviewed for conformity with U.S. Geological Survey editorisl stsndards or with the North American Stratigraphic Code. Any use of trade, product or firm names is for descriptive purposes only and does not imply endorsement by the U.S. or Csnadian Governments.

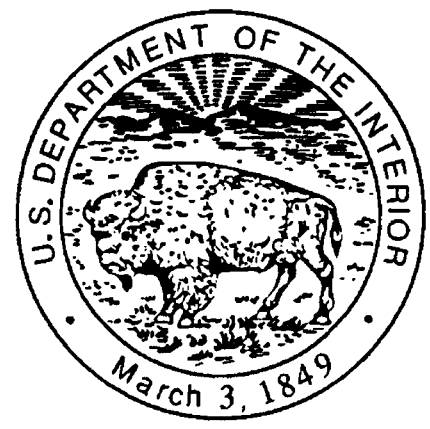
Menlo Park, California
1995

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

DATA REPORT FOR THE 1993 MENDOCINO TRIPLE JUNCTION SEISMIC EXPERIMENT

By

N.J. Godfrey[1], B.C. Beaudoin[1], C. Lendl[2], A. Meltzer[3], and J. Luetgert[4]



[1] Stanford University, Stanford, CA 94305
[2] Oregon State University, Corvallis, OR 97331
[3] Lehigh University, Bethlehem, PA 18015
[4] U.S. Geological Survey Menlo Park, CA 94025

OPEN-FILE REPORT 95-275

This report is preliminsry snd has not been reviewed for conformity with U.S. Geologicsl Survey editorisl stsndards or with the North American Stratigrsphic Code. Any use of trade, product or firm names is for descriptive purposes only snd does not imply endorsement by the U.S. or Cansdian Governments.

1995

CONTENTS

1 Introduction..... 1
2 Geologic setting..... 1
3 Data acquisition..... 1
4 Instruments..... 5
5 Comparison of instrument responses of collocated instruments..... 7
6 Data reduction..... 18
7 Record sections..... 19
8. Multichannel reflection lines 54
Acknowledgments..... 63
References..... 63

FIGURES

Figure 1 Map showing the location of the wide-angle reflection/refraction lines..... 2
Figure 2a Station elevations for Line 1..... 3
Figure 2b Station elevations for Line 6..... 4
Figure 2c Station elevations for Line 9..... 4
Figure 4 SGR response..... 5
Figure 5 REFTEK response..... 6
Figure 6 PRS response..... 6
Figure 7a Traces from collocated station 6208 for shotpoint 603..... 8
Figure 7b Spectra from collocated station 6208 for shotpoint 603..... 9
Figure 8a Traces from collocated station 6208 for shotpoint 604..... 10
Figure 8b Spectra from collocated station 6208 for shotpoint 604..... 11
Figure 9a Traces from collocated station 1208 for shotpoint 101..... 12
Figure 9b Spectra from collocated station 1208 for shotpoint 101..... 13
Figure 10a Traces from collocated station 6208 for shotpoint 608..... 14
Figure 10b Spectra from collocated station 6208 for shotpoint 608..... 15
Figure 11a Traces from collocated station 6208 for shotpoint 606..... 16
Figure 11b Spectra from collocated station 6208 for shotpoint 606..... 17
Figure 12 Shot gather for shotpoint 101 (vertical component, reduced at 6 km/s)..... 21
Figure 13 Shot gather for shotpoint 102 (vertical component, reduced at 6 km/s)..... 22
Figure 14 Shot gather for shotpoint 103 (vertical

component, reduced at 6 km/s)..... 23
Figure 15 Shot gather for shotpoint 104 (vertical component, reduced at 6 km/s)..... 24
Figure 16 Shot gather for shotpoint 105 (vertical component, reduced at 6 km/s)..... 25
Figure 17 Shot gather for shotpoint 106 (vertical component, reduced at 6 km/s)..... 26
Figure 18 Shot gather for shotpoint 107 (vertical component, reduced at 6 km/s)..... 27
Figure 19 Shot gather for shotpoint 108 (vertical component, reduced at 6 km/s)..... 28
Figure 20 Shot gather for shotpoint 601 (vertical component, reduced at 6 km/s)..... 29
Figure 21 Shot gather for shotpoint 602 (vertical component, reduced at 6 km/s)..... 30
Figure 22 Shot gather for shotpoint 603 (vertical component, reduced at 6 km/s)..... 31
Figure 23 Shot gather for shotpoint 604 (vertical component, reduced at 6 km/s)..... 32
Figure 24 Shot gather for shotpoint 605 (vertical component, reduced at 6 km/s)..... 33
Figure 25 Shot gather for shotpoint 606 (vertical component, reduced at 6 km/s)..... 34
Figure 26 Shot gather for shotpoint 607 (vertical component, reduced at 6 km/s)..... 35
Figure 27 Shot gather for shotpoint 608 (vertical component, reduced at 6 km/s)..... 36
Figure 28 Shot gather for shotpoint 901 (vertical component, reduced at 6 km/s)..... 37
Figure 29 Shot gather for shotpoint 902 (vertical component, reduced at 6 km/s)..... 38
Figure 30 Shot gather for shotpoint 903 (vertical component, reduced at 6 km/s)..... 39
Figure 31 Shot gather for shotpoint 904 (vertical component, reduced at 6 km/s)..... 40
Figure 32 Shot gather for shotpoint 905 (vertical component, reduced at 6 km/s)..... 41
Figure 33 Shot gather for shotpoint 906 (vertical component, reduced at 6 km/s)..... 42
Figure 34 Shot gather for shotpoint 907 (vertical component, reduced at 6 km/s)..... 43
Figure 35 Shot gather for shotpoint 908 (vertical component, reduced at 6 km/s)..... 44
Figure 36 Shot gather for shotpoint 909 (vertical component, reduced at 6 km/s)..... 45
Figure 37 Shot gather for shotpoint 910 (vertical component, reduced at 6 km/s)..... 46
Figure 38 Shot gather for shotpoint 911 (vertical component, reduced at 6 km/s)..... 47

Figure 39 Shot gather for shotpoint 104 (horizontal north-south component, reduced at 3.46 km/s)..... 48
Figure 40 Shot gather for shotpoint 104 (horizontal east-west component, reduced at 3.46 km/s)..... 49
Figure 41 Shot gather for shotpoint 605 (horizontal north-south component, reduced at 3.46 km/s)..... 50
Figure 42 Shot gather for shotpoint 605 (horizontal east-west component, reduced at 3.46 km/s)..... 51
Figure 43 Shot gather for shotpoint 906 (horizontal north-south component, reduced at 3.46 km/s)..... 52
Figure 44 Shot gather for shotpoint 906 (horizontal east-west component, reduced at 3.46 km/s)..... 53
Figure 45 Map showing the location of the Bison reflection spread..... 55
Figure 46 Shotgather for shotpoint 101 recorded by the Bison reflection array..... 56
Figure 47 Shotgather for shotpoint 102 recorded by the Bison reflection array..... 56
Figure 48 Shotgather for shotpoint 103 recorded by the Bison reflection array..... 56
Figure 49 Shotgather for shotpoint 104 recorded by the Bison reflection array..... 56
Figure 50 Shotgather for shotpoint 105 recorded by the Bison reflection array..... 56
Figure 51 Shotgather for shotpoint 106 recorded by the Bison reflection array..... 57
Figure 52 Shotgather for shotpoint 107 recorded by the Bison reflection array..... 57
Figure 53 Shotgather for shotpoint 108 recorded by the Bison reflection array..... 57
Figure 54 Shotgather for shotpoint 902 recorded by the Bison reflection array..... 57
Figure 55 Shotgather for shotpoint 903 recorded by the Bison reflection array..... 57
Figure 56 Shotgather for shotpoint 904 recorded by the Bison reflection array..... 58
Figure 57 Shotgather for shotpoint 905 recorded by the Bison reflection array..... 58
Figure 58 Shotgather for shotpoint 907 recorded by the Bison reflection array..... 58
Figure 59 Shotgather for shotpoint 107 recorded by the Bison reflection array..... 58
Figure 60 Amplitude and Frequency spectra for trace 4 from shot 106..... 59
Figure 61 Amplitude and Frequency spectra for trace 20 from shot 106..... 60
Figure 62 Amplitude and Frequency spectra for trace 25 from shot 106..... 61
Figure 63 Amplitude and Frequency spectra for

trace 30 from shot 106..... 62

TABLES

Table 1 Shotpoint Locations and shot sizes for the shotpoints from Lines 1, 6 and 9..... 64
Table 2 Station locations, elevations and instrument type for the stations on Line 1..... 65
Table 3 Station locations, elevations and instrument type for the stations on Line 6..... 71
Table 4 Station locations, elevations and instrument type for the stations on Line 9..... 77
Table 5 SEGY header values..... 82
Table 6 Positions and channel numbers of collocated instruments..... 82
Table 7 Positions and channel numbers of instruments at shotpoints..... 82
Table 8 Summary of the shots recorded by the Bison reflection spread at Lake Pillsbury..... 83

1) INTRODUCTION

In August 1993 the USGS, Stanford University, Lehigh University, Oregon State University and Rice University collaborated to record three onshore seismic lines with a total length of 650 km in the Mendocino Triple Junction Region. These three lines are part of an on-going seismic study designed to investigate the interactions of the Pacific Plate, the North American Plate and the Juan de Fuca/Gorda Plate in the Triple Junction region where the three plates meet. The onshore lines shot in 1993, Lines 1, 6 and 9, and the locations of the shots and receivers are shown in Figure 1. The shots were detonated in drill holes that had depths ranging from 30 m to 60 m.

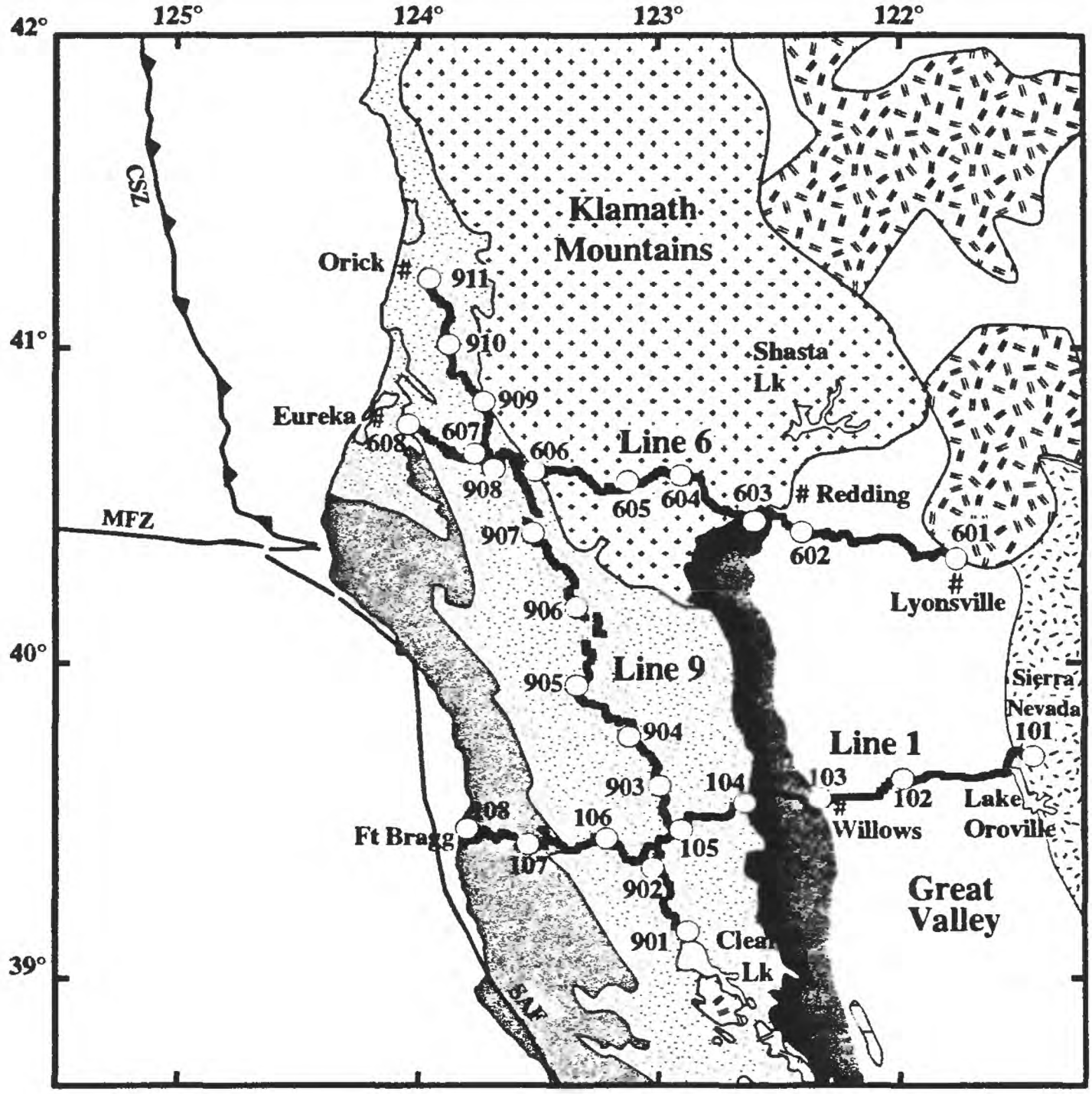
2) GEOLOGIC SETTING

The Mendocino Triple Junction marks the point where three plates, the North American, the Pacific and the Gorda, meet and interact. The San Andreas Fault Zone is the boundary between the Pacific plate and North American plate, the Cascadia Subduction Zone is the boundary between the North American plate and the Gorda plate and the Mendocino Fracture Zone is the boundary between the Gorda plate and the Pacific plate. The Gorda plate is currently being subducted beneath the North American plate north of the Mendocino Triple Junction, whilst the Pacific plate and North American plates are sliding past one another along a transform margin (the San Andreas Fault Zone) south of the Mendocino Triple Junction.

The Mendocino Triple Junction has been migrating north since its inception 25 - 30 million years ago, and as a result, the transform margin has lengthened to the north as subduction shuts down. It has been proposed that as the subducting slab 'retreats' northwards, a slabless window is left in its wake (Dickinson and Snyder, 1979). Jachens and Griscom (1983) have proposed that the southern edge of the presently subducting Gorda slab runs in an north west-south east direction from the triple junction to at least the Great Valley. Smith et al (1993) believe that the southern edge of the Gorda Plate runs in an east-west direction as a direct extension of the Mendocino Fracture Zone. Line 1 samples the current transform regime and aims to provide information about how the lithosphere responds to a change from a subduction environment to a transform environment. Line 6 samples the subduction regime and aims to provide information about the current subduction zone. Line 9 crosses the transition from subduction in the north to transform motion in the south and aims to provide information about how the transition is accommodated in the lithosphere, and where the edge of the currently subducting Gorda slab is.

3) DATA ACQUISITION

Station locations were determined by drawing a straight line on a map from the first shotpoint on the line to the last shotpoint on the line, marking points every 350 m (for east - west lines) or 400 m (for the north - south line) along this line,



Legend

- Miocene and younger sediments
- King Range and Coastal Belt Franciscan
- Central and Eastern Belt Franciscan
- Klamath Mountain Terrane
- Mesozoic Great Valley
- Tertiary Volcanics
- Sierra Nevada Batholith

100 km

○ shotpoint

thrust fault (teeth on upper plate)

Figure 1: map of northern California showing the shotpoints (open circles) and station locations (solid lines) for the Mendocino Triple Junction Experiment.

and then projecting these points perpendicularly from the line to the closest accessible rural road, National Forest road or logging road. Prior to the experiment, the shotpoint locations and station locations marked on the 1:24,000 maps (USGS 7.5 minutes series) were surveyed using the Global Positioning System (GPS) referenced to the WGS-84 reference system. Surveying crews completed this task between March and July of 1993. The GPS data at each station location was reduced relative to a base station operated by Trimble Navigation in Sunnyvale, California. For various reasons, including not being able to receive the minimum of four satellites for a 3D fix and not being able to read some of the base station data to allow data reduction, many of the locations had to be digitized from the 1:24,000 maps. The information on how the location data was obtained is recorded in Tables 1 through 4. The accuracy of positioning using GPS is 5 m for horizontal positions and 10 m for vertical positions. The accuracy of positioning by digitizing is about 25 m for horizontal positions and about 10 m for vertical positions, although this is strongly dependent on the distribution of contours and the contour interval.

To avoid cultural noise , seismographs were mainly deployed on rural roads and private land such as National Forest roads and logging roads, and the shots were fired at night, between midnight and 4:00 am.

Line 1 is a 200-km-long east-west line that runs from Lake Oroville to Ft. Bragg consisting of data from 571 seismographs and eight shot points. The shots were nominally 25 km apart (except shotpoints 101 and 102 which are about 45 km apart) and ranged in size from 400 - 2000 kg. Exact locations of the shots and the size of the shots can be found in Table 1. The seismographs were nominally 350 m apart and exact locations of the instruments can be found in Table 2. Shot and station locations are shown in Figure 1. Station elevations ranged from 20 m above sea-level to 1665 m above sea level and are shown in Figure 2a.

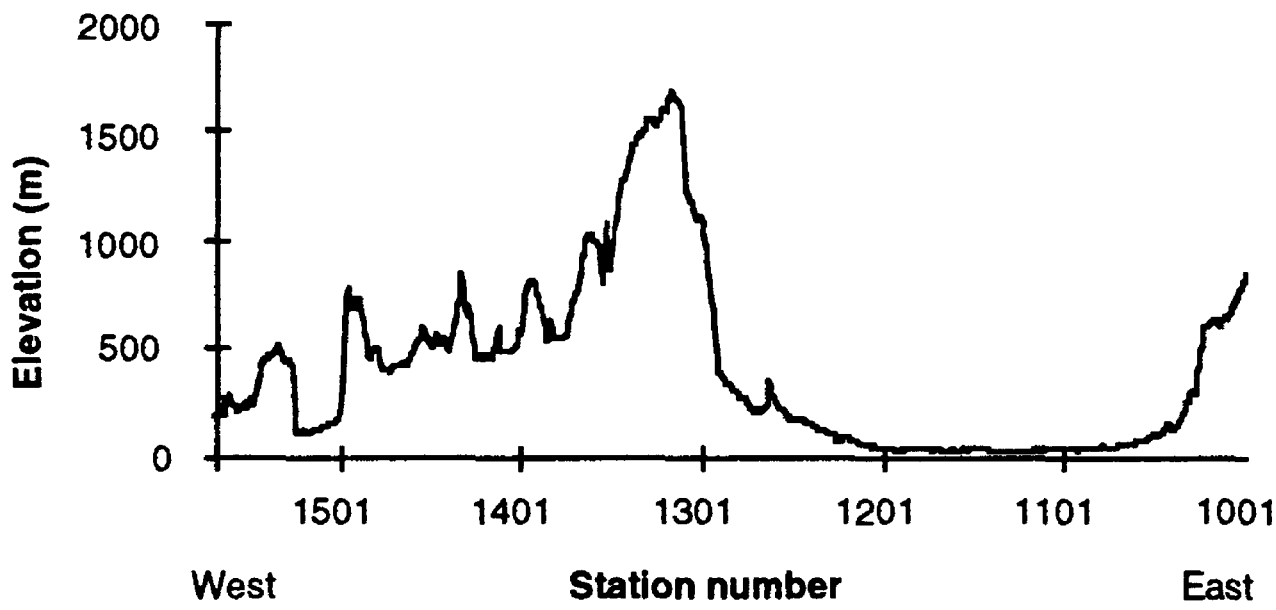


Figure 2a: station elevations for Line 1

Line 6 is a 200-km-long east-west line that runs from Lyonsville to Eureka consisting of data from 566 seismographs and eight shot points. The shots were nominally 25 km apart except for shotpoints 601 and 602 which were about 55 km apart) and ranged in size from 400 - 2000 kg. Exact locations of the shots and

the size of the shots can be found in Table 1. The seismographs were nominally 350 m apart and exact locations of the instruments can be found in Table 3. Shot and station locations are shown in Figure 1. Station elevations range from 111 m above sea-level to 1669 m above sea-level and are shown in Figure 2b.

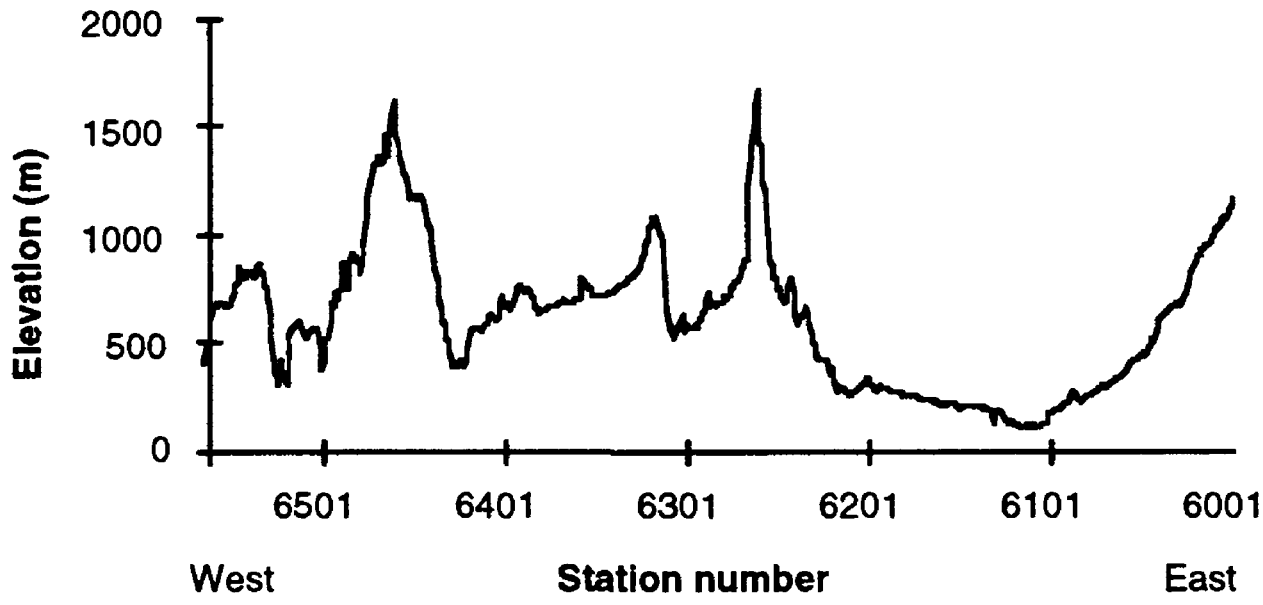


Figure 2b: station elevations for line 6

Line 9 is a 250-km-long north west-south east line that runs from Orick to Clear Lake consisting of data from 556 seismographs and eleven shot points. The shots were nominally 25 km apart and ranged in size from 400 - 2000 kg. Exact locations of the shots and the size of the shots can be found in Table 1. The seismographs were nominally 400 m apart and exact locations of the instruments can be found in Table 4. Shot and station locations are shown in Figure 1. Station elevations ranged from 162 m above sea-level to 1976 m above sea-level and are shown in Figure 2c.

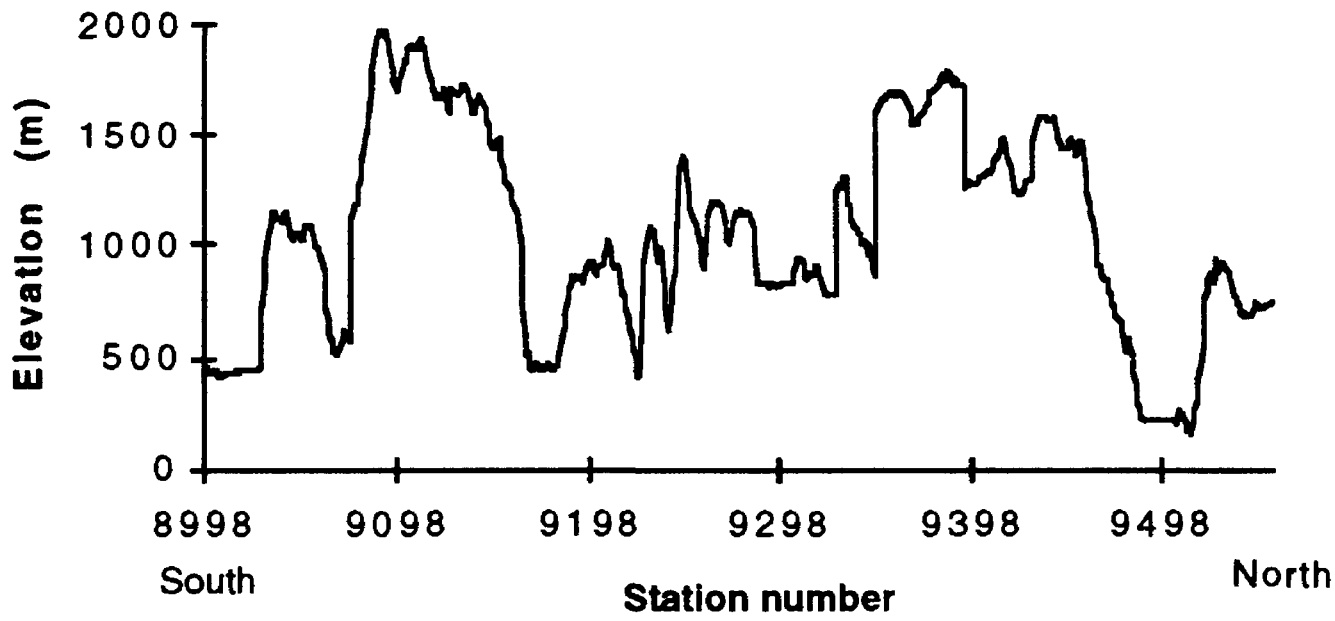


Figure 2c: station elevations for line 9

The three component instruments (REFTEKS and PRS-4s were deployed with the horizontal components of the geophones oriented north-south and east-west (with respect to magnetic north).

4) INSTRUMENTS

Three different types of seismograph were used in the experiment: 180 Seismic Group Recorders (SGRs) which are owned by Stanford University, 165 REFTEKS operated by IRIS/PASCALL and 220 Portable Refraction Seismographs (PRS's) (185 PRS-1s and 35 PRS-4s) which are operated by the Geological Survey of Canada (GSC).

SGR

The SGRs were designed by Amoco Production Company, built by Globe Universal Sciences Inc. and have been modified by the USGS to turn on at preset times rather than by radio trigger. They are single channel, digital instruments with a theoretical range of 156 dB that record onto cassette tapes. They record at a sample rate of 4 ms and were connected to either single strings of 6 Marks Products L-10B vertical component 8 Hz geophones connected in series or to single Marks Products L4A 2 Hz geophones. Their response function is shown in Figure 4 (Murphy et al, 1992).

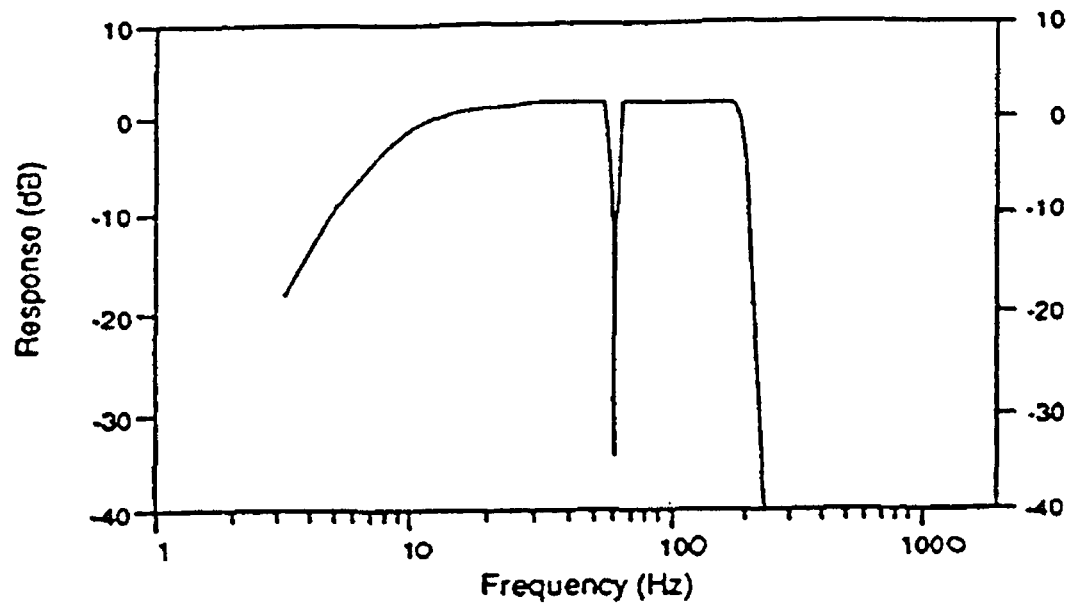


Figure 4: Theoretical instrument response for the SGR

REFTEK

The REFTEK seismographs are three channel, three component instruments owned by IRIS/PASSCALL which can be operated in pre-programmed mode or event-detect mode. They were used in pre-programmed mode for this experiment. They can record at a range of sampling rates, and the data recorded in this experiment was sampled at 8 ms. The seismographs were connected to three component Mark Products L-22 2 Hz geophones. The instrument response function is shown in Figure 5 (PASSCALL training center manual, unpublished manuscript).

PRS

Two types of PRS were used in the experiment: the PRS-1 and the PRS-4. The PRS-1 is a one component digital instrument with a total dynamic range of 126 dB and a sampling interval of 8.3 ms. The PRS-1 instruments were connected to one component Mark Products L4A 2 Hz vertical geophones. The PRS-4

instruments are similar to the PRS-1 instruments except that they record three orthogonal components. The theoretical instrument response for both PRS -1 and PRS -4 seismographs is shown in Figure 6 (Luetgert et al, 1990).

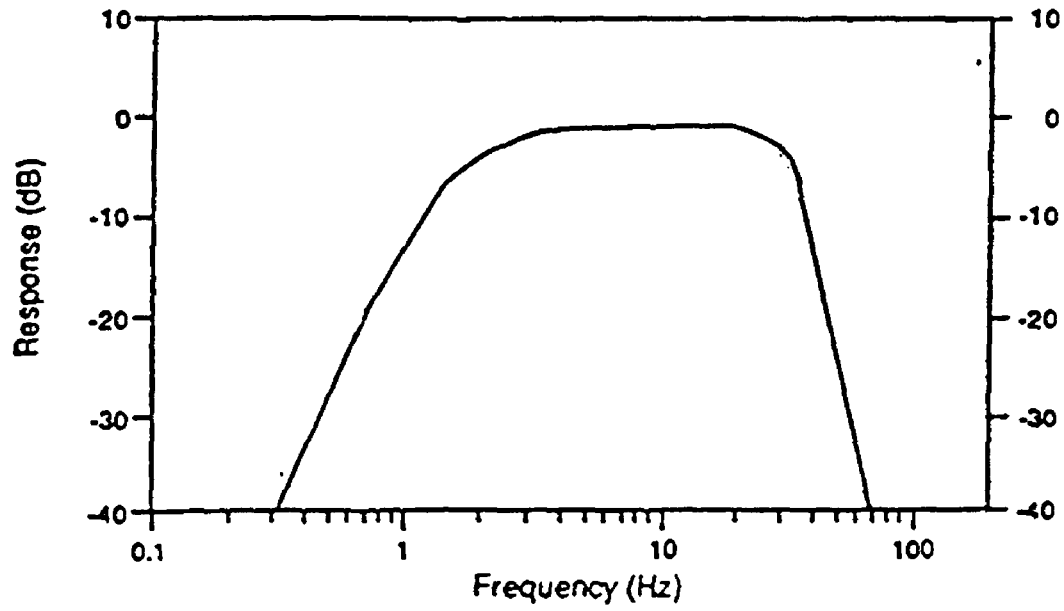


Figure 5: Theoretical instrument response for the REFTEK

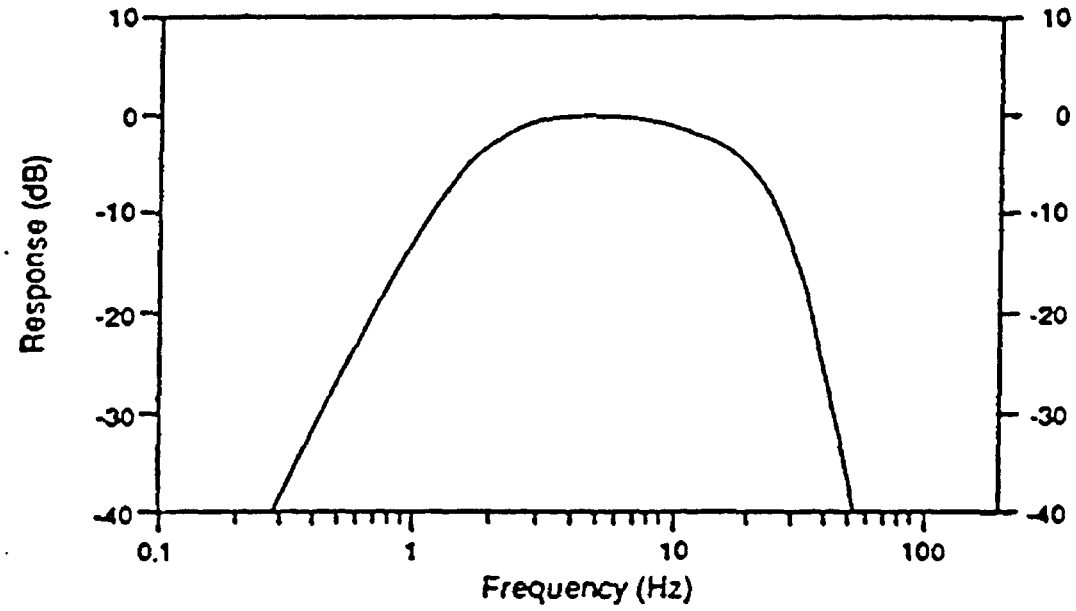


Figure 6: Theoretical instrument response for the PRS

The different instruments were distributed along the lines so that for the most part SGRs and REFTEKS alternated along the lines which means one component instruments alternate with three component instruments allowing coverage of the whole line by three component instruments, and PRS's were put at the eastern end of the two east-west lines (Lines 1 and 6) and at both ends of the north east-south west line (Line 9) since they have a lower frequency response and are more suitable for recording energy out to the longest offsets. The type of instrument located at each station is listed in Tables 2, 3 and 4.

TIMING

Prior to deployment, the internal clocks of each instrument were synchronised with a temperature-compensated master clock which in turn was synchronised

with a satellite clock. The deployed instruments were programmed to begin recording immediately before each shot and to continue recording for 60 seconds before switching off again. When the instruments were picked up after the deployment, the internal clocks were compared to the satellite clock to measure the drift of the internal clocks.

5) COMPARISON OF INSTRUMENT RESPONSES OF COLLOCATED INSTRUMENTS

During the experiment, some sites were instrumented with all three types of seismographs. This was done to compare the response of the different instrument groups during the data analysis phase. There seems to be a different ground motion polarity on the REFTEK instruments. Table 6 shows the locations and channel numbers of the collocated stations, and table 7 shows the channel numbers and locations of instruments placed at shotpoints. Figures 7a to 10b show traces and spectra of collocated instruments, ordered by distance between instrument and shotpoint. They are followed by an example of cultural noise (figure 11a and 11b).

The traces for the comparison of the instrument response were taken directly from the field tapes. Arrivals recorded on SGR and PRS instruments generally line up well. On some of the REFTEKs, however, the first arrivals do not occur at the same apparent time as the arrivals of the other collocated instruments. Although a correction for linear clock-drift was applied (as much as 0.157s for the REFTEK instrument at station 1208), there is still a considerable mismatch left (e.g. figure 9a). This may be, because the total drift on some of the REFTEKs was large and non-linear.

Further data processing steps were debiasing and, in some cases, despiking small offset SGR traces. Despiking was done by manually picking spikes and replacing them with interpolated values. The spikes only occurred in a few SGR traces and at ranges smaller than 35 km. The same instrument showed no spikes for more distant shots. Two three-second windows were selected for the power spectra density plots, one window starting with the first arrival (solid line in the spectra) and the second window for the background noise immediately before the event (dashed line in the spectra). A Bartlett window was applied before the Fourier transform, and a five sample running-average was calculated. Because of the three second window length, the spectra become poorly resolved towards low frequencies.

Towards the high frequency end of the spectrum, an anti-aliasing filter is applied by each instrument. The anti-aliasing filter of the REFTEK instruments is very sharp and the signal level is reduced to background noise level at the Nyquist frequency (figure 7b). This is caused by the different filter technology build in the instrument. REFTEKs record with an instrument-internal, high sampling rate which then is digitally filtered to the sampling rate in the seismogram. In contrast, the SGR and PRS instruments record with the seismogram sampling rate and

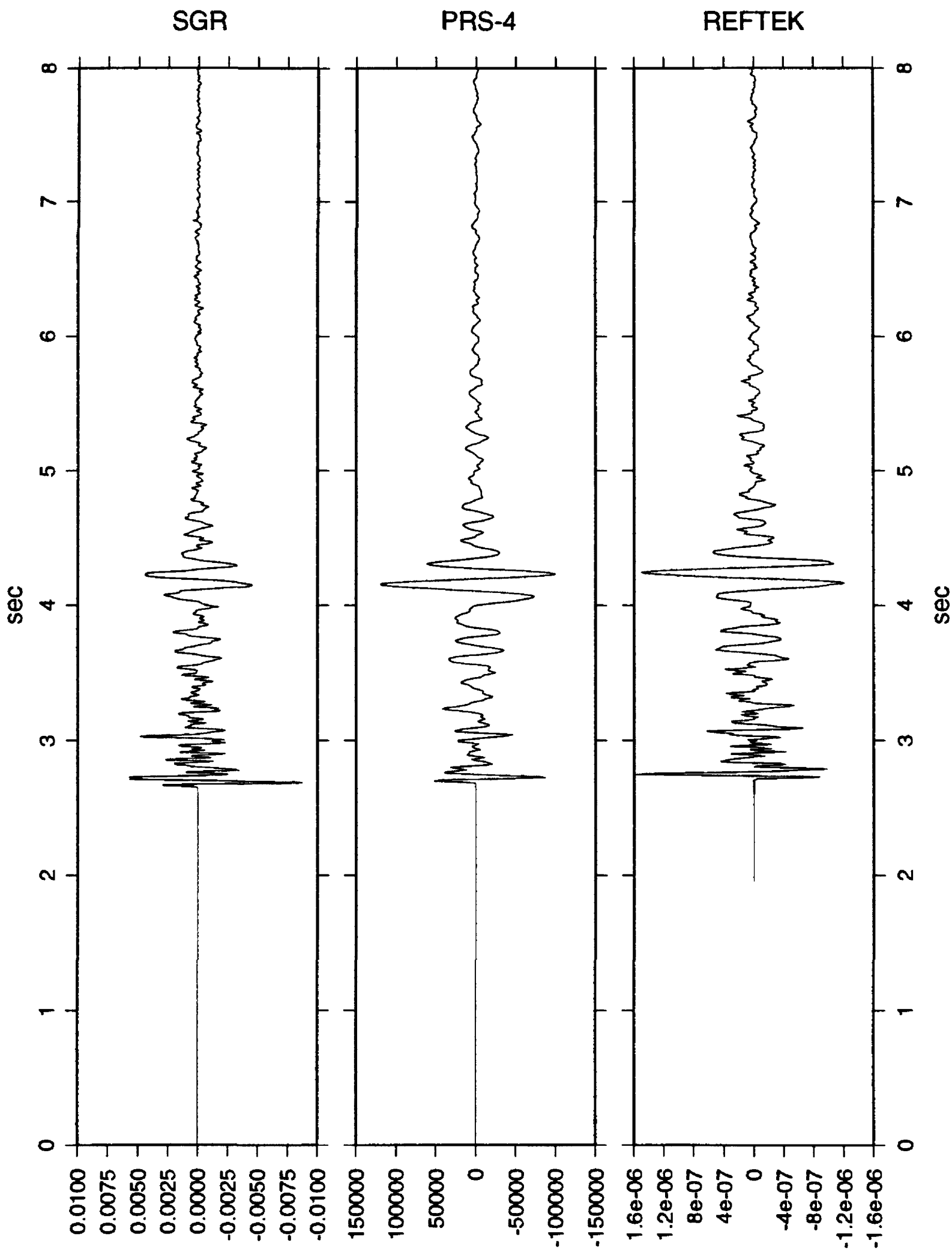


Figure 7a: Traces from collocated station 6208 for shot 603. The range is 2.75 km

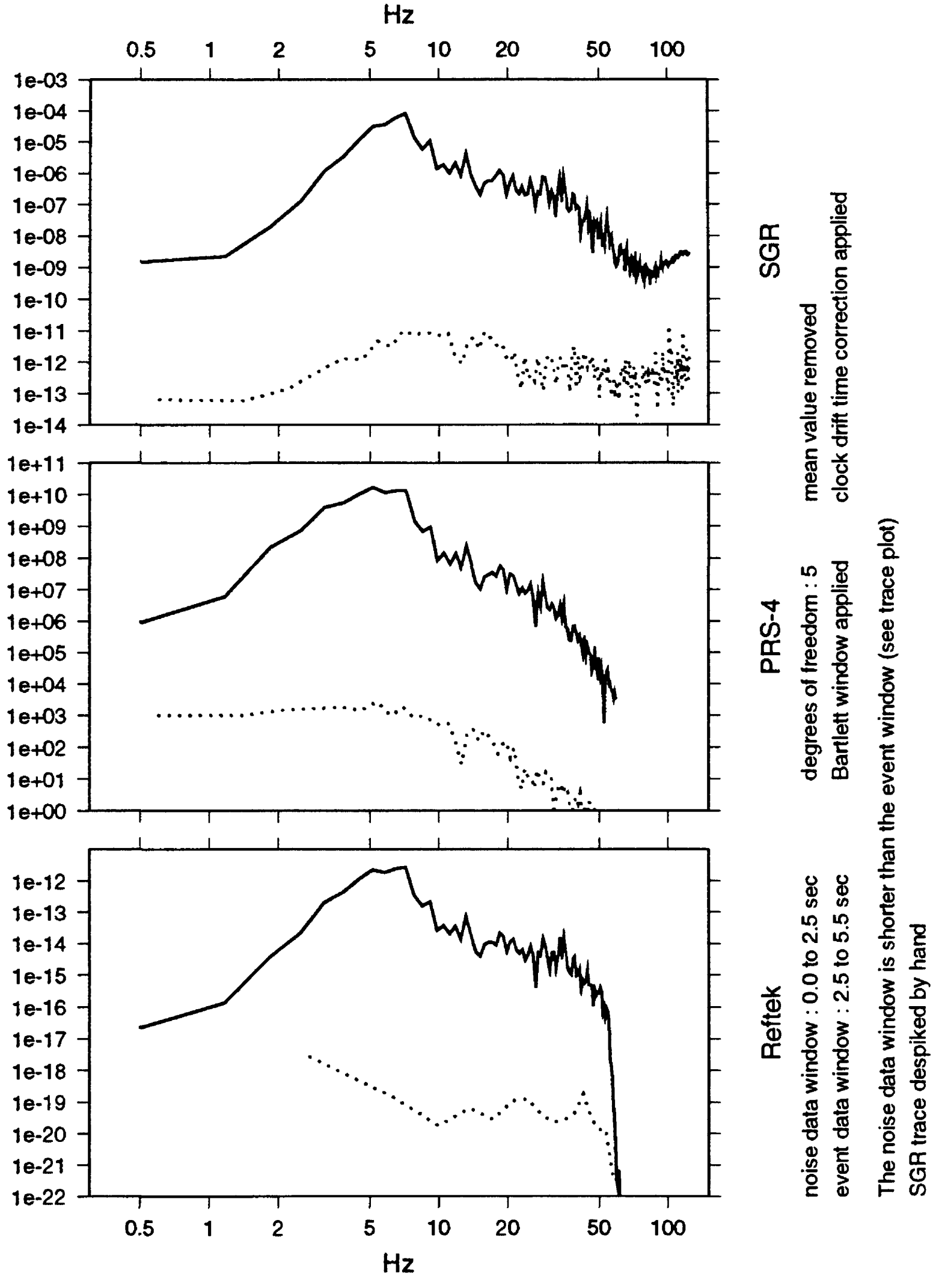


Figure 7b: Spectra from collocated station 6208 for shot 603. The range is 2.75 km

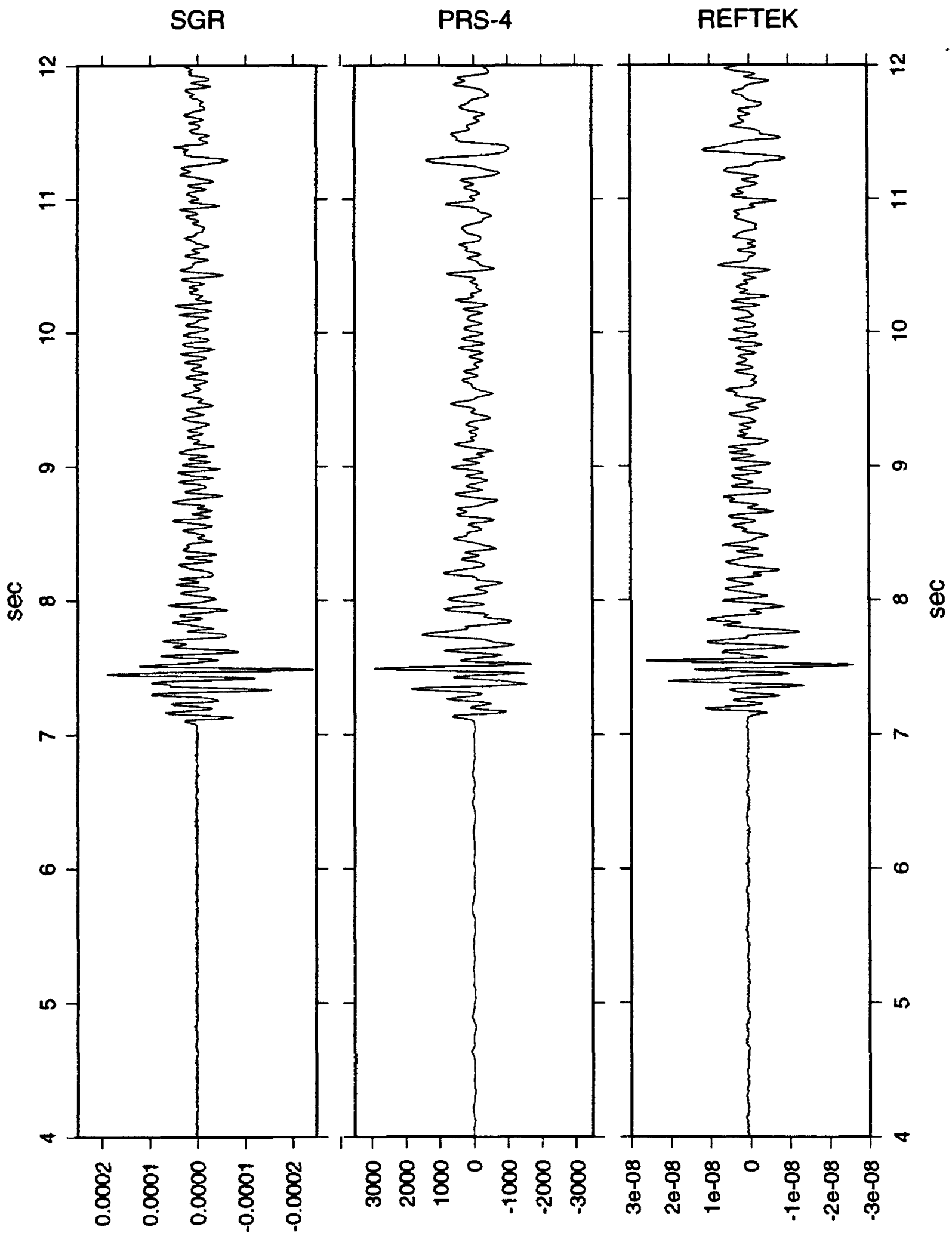


Figure 8a: Traces from collocated station 6208 for shot 604. The range is 28.3 km

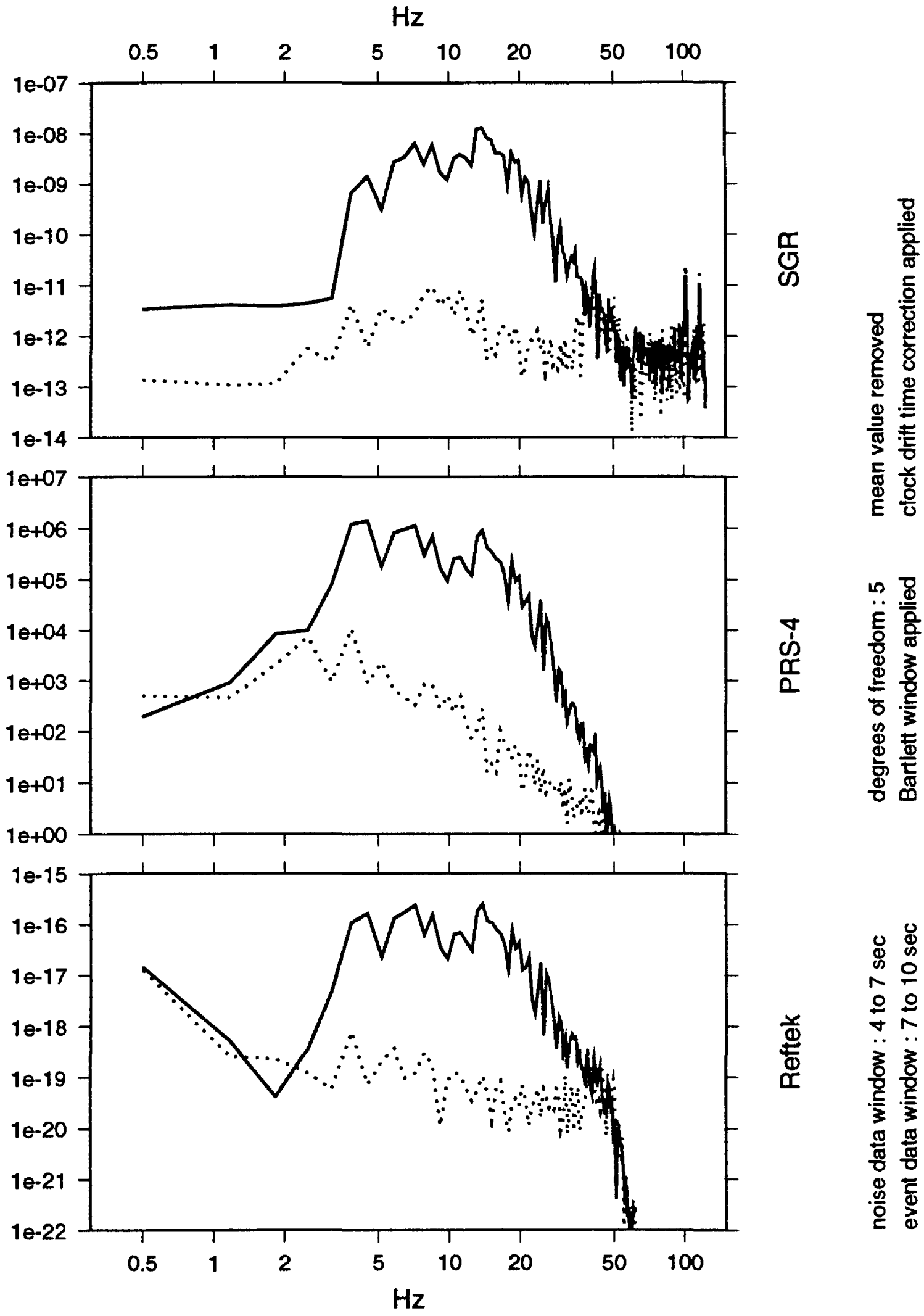


Figure 8b: Spectra from collocated station 6208 for shot 604. The range is 28.3 km

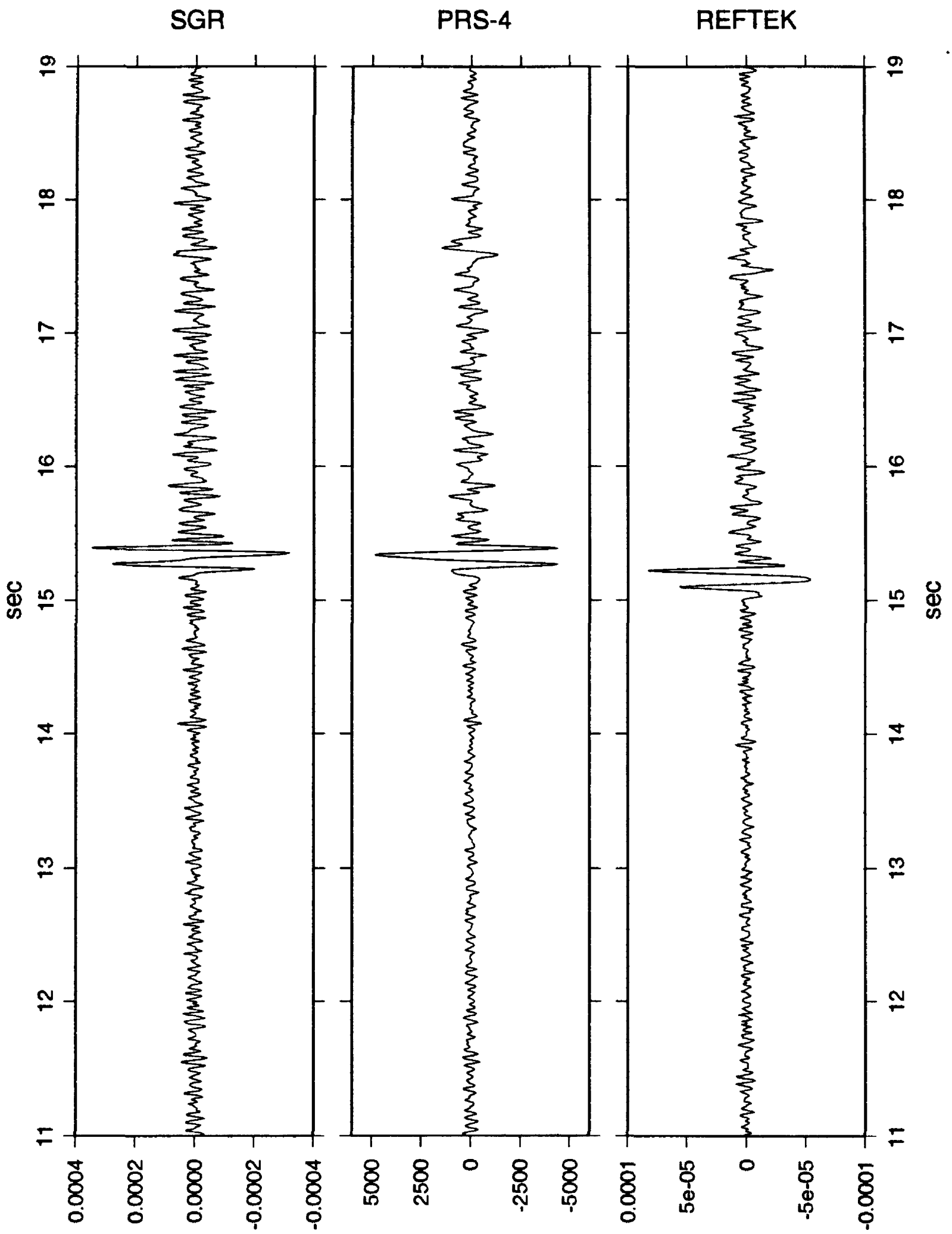


Figure 9a: Traces from collocated station 1208 for shot 101. The range is 73.3 km

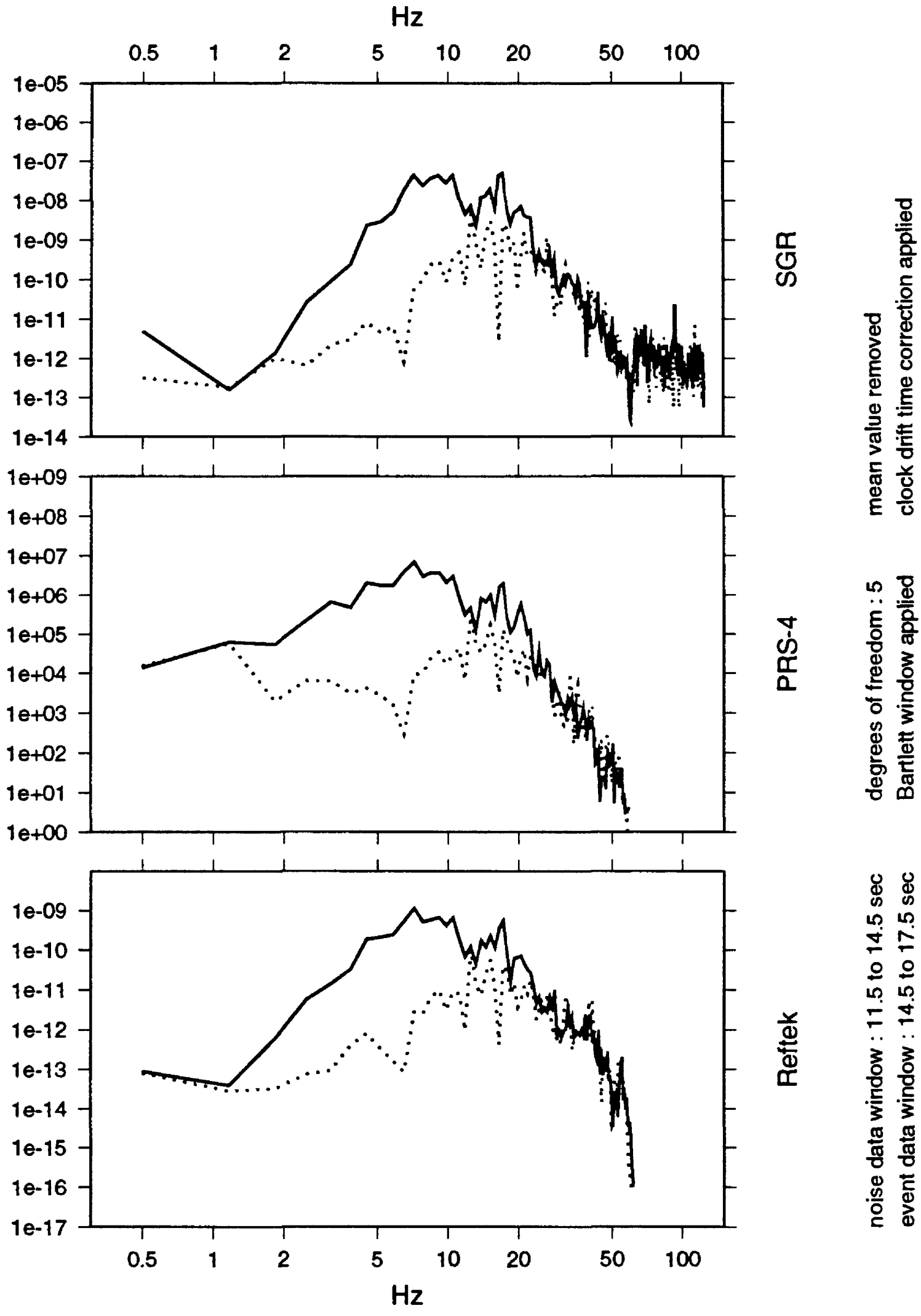


Figure 9b: Spectra from collocated station 1208 for shot 101. The range is 73.3 km

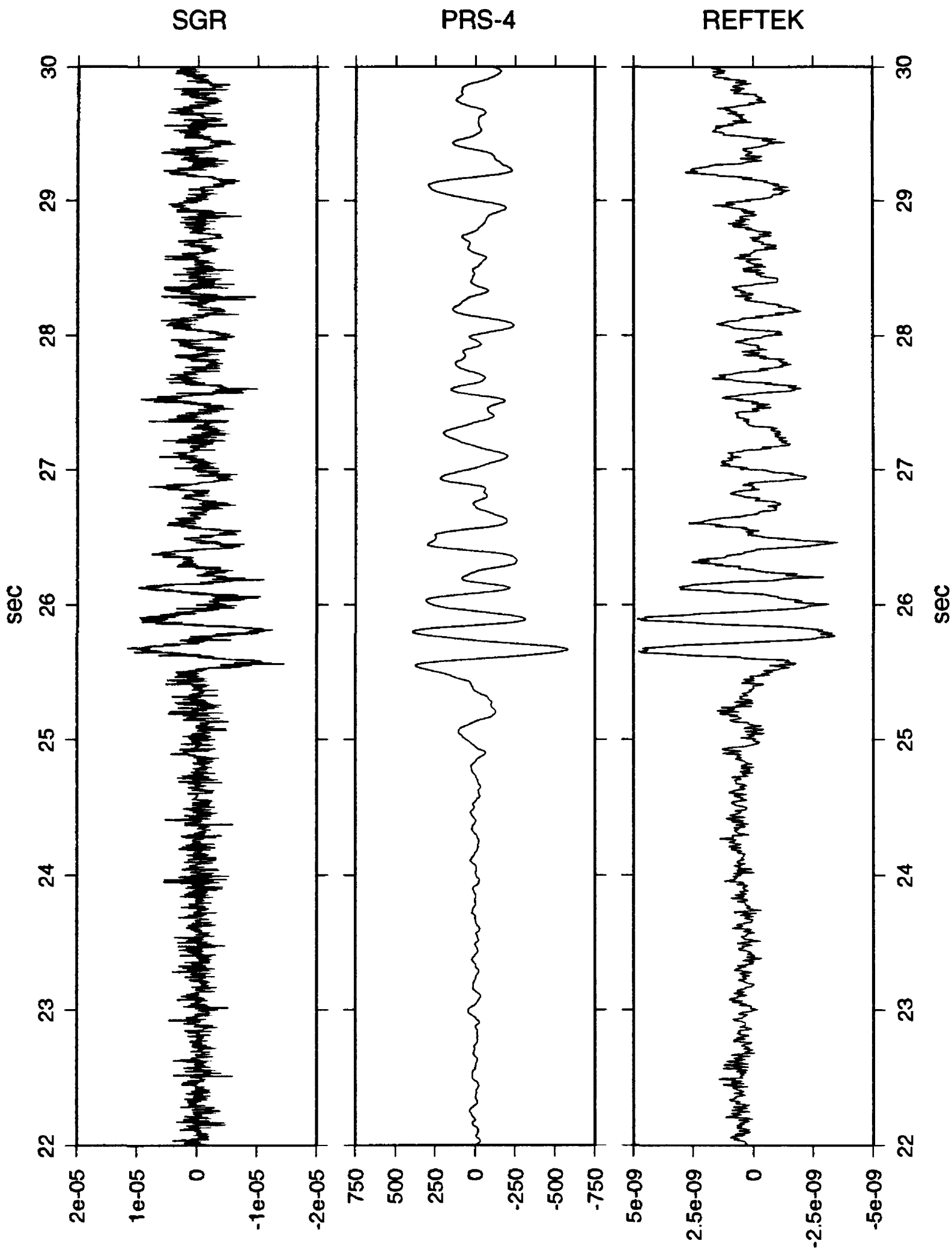


Figure 10a: Traces from collocated station 6208 for shot 608. The range is 125.9 km

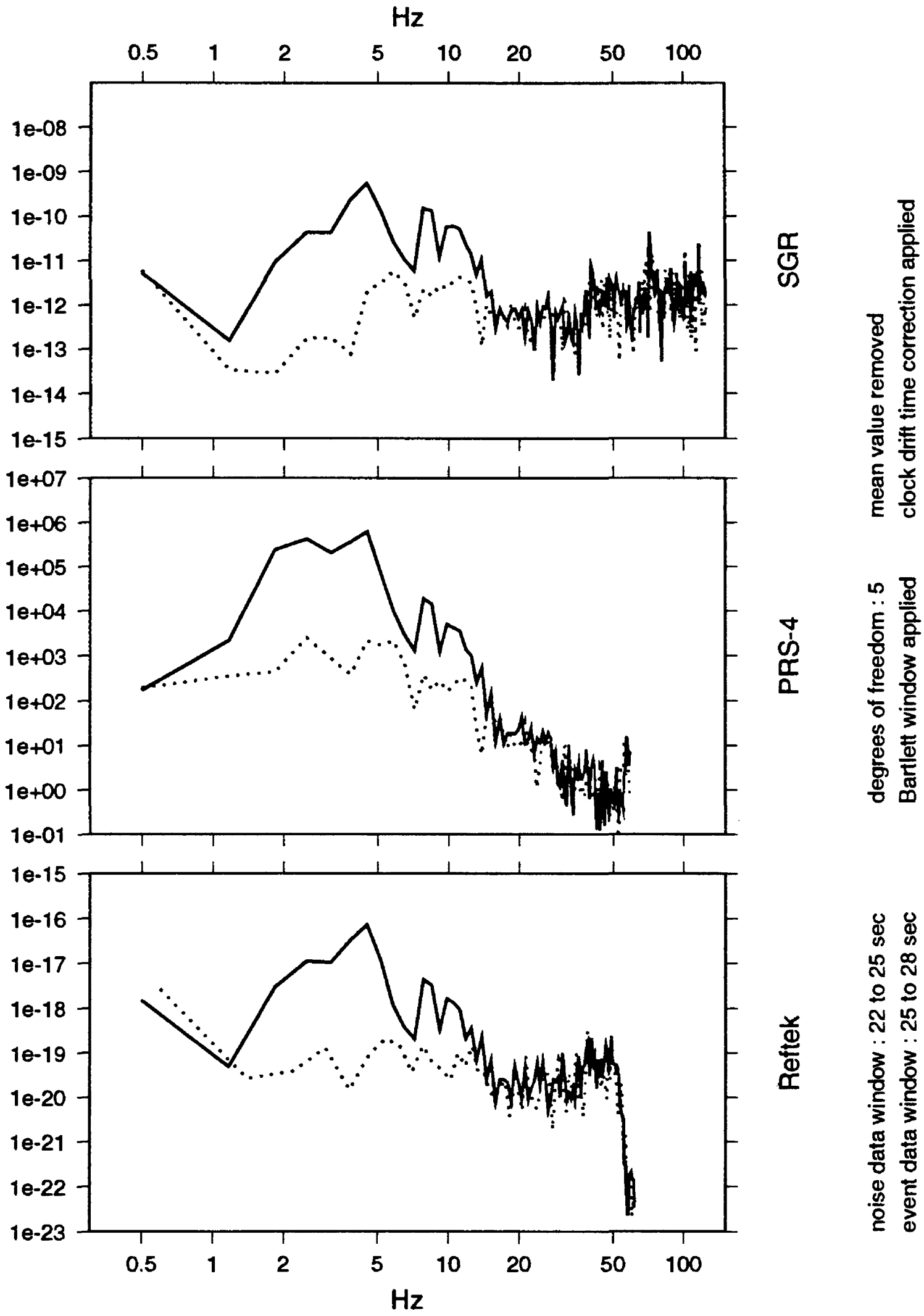


Figure 10b: Spectra from collocated station 6208 for shot 608. The range is 125.9 km

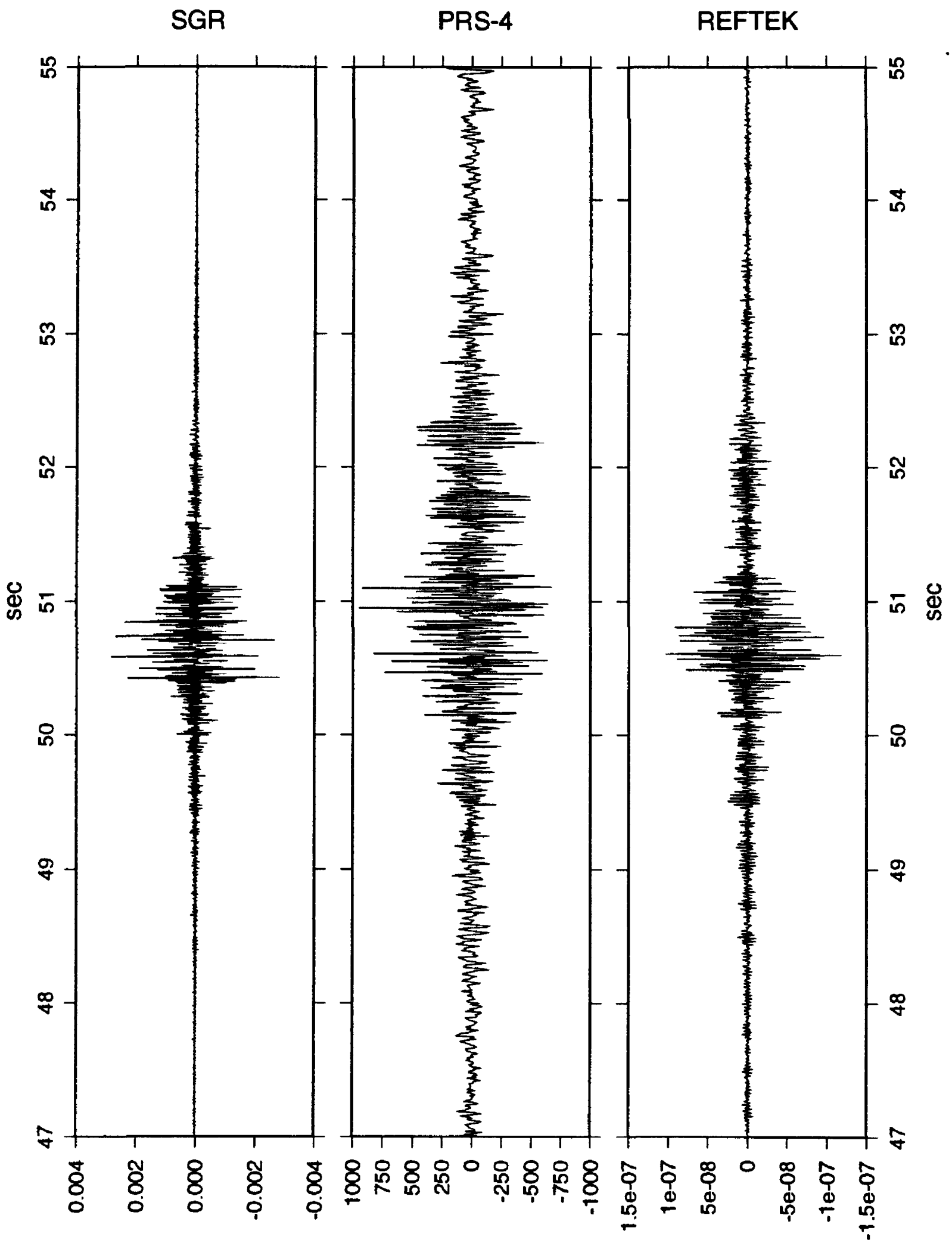


Figure 11a:Traces from collocated station 6208 for shot 606. The range is 78.6 km

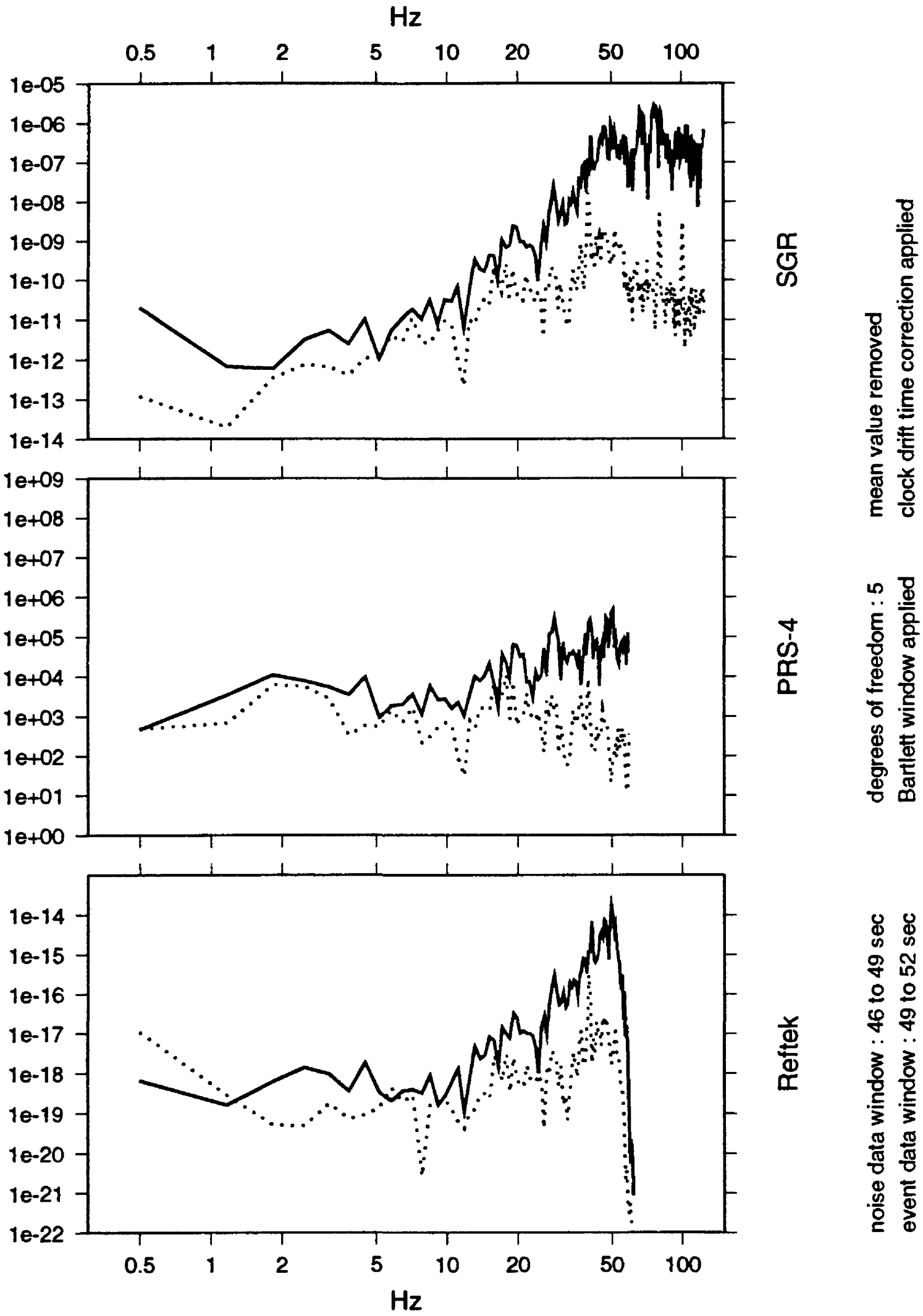


Figure 11b:Spectra from collocated station 6208 for shot 606. The range is 78.6 km

apply an analog anti-aliasing filter. The PRS instruments have a less steep anti-aliasing filter. A typical spectrum is shown in figure 8b.

There is a significant slope in the background noise spectrum, while for the same station and shot, REFTEK and SGR instruments show almost horizontal background noise spectra. The SGR instruments have such a high Nyquist frequency (125 Hz) that the anti-aliasing filter only becomes important for very short ranges (figure 7b) and for strong cultural noise containing frequencies near the Nyquist frequency (figure 11b). For those cases only, the PRS and the SGR anti-aliasing filter both fail to attenuate strong high frequency signals, causing a potential aliasing problem. No investigation of phase shifts caused by the anti-aliasing filters was done.

For large shot-receiver ranges, the spectrum of the signal shifts towards lower frequencies (compare figures 7b, 8b, 9b and 10b). The quality of the recordings at low frequencies depends mostly on the seismograph used by the instrument. It is not surprising that the PRS instrument performs the best, since it is the only instrument with a 2 Hz seismograph. Figure 10a nicely shows the dominating long periods in the signal. The PRS trace is the smoothest trace since high frequency background noise is attenuated by the shallow slope of the PRS anti-aliasing filter. Although the seismic profile is about 200 km long, the largest useful offset for collocated instruments is 125.9 km, shown in figure 10a and 10b. Only shot 108 for trace 1126 would give a larger distance (156 km). Unfortunately the signal was too attenuated to be of any use. The full range of 200 km is not reached since collocated instruments were not deployed at the ends of the line.

6) DATA REDUCTION

Data from the different instruments were reduced as outlined below and then the datasets were merged into nine SEGY format files, one for the vertical component data for each line, one for the horizontal component data (both north-south and east-west components) for each line and one for the collocated stations for each line. The first six SEGY files include geometry, but the last three SEGY files (for the collocated instruments) do not include geometry. The locations for the stations in these files are given in Table 6 and 7. All the SEGY header positions are listed in Table 5.

SGR
The following processing was done:
- resampled from 4 ms to 8 ms using a 60 Hz anti-alias filter.
- corrections made for offset dependent start times
- clock drift static applied
- DC offset removed

REFTEK
- DC offset removed
- the three component data was split up and the vertical component data was put in one SEGY file and the horizontal components were put in another SEGY file

• polarity reversed to bring into line with the data recorded on the SGRs and PRSs
• clock drift static shift applied

PRS
The data from the Canadian Geological Survey was distributed as a SEGY disk image and was then processed as outlined below:
• resampled from 8.33 to 8 ms using a 60 Hz anti-alias filter
• DC offset was removed from the data
• the three component data (PRS-4s) was split up and the vertical component data was put in one SEGY file and the horizontal components were put in another SEGY file
•clock drift static shift applied

The three datasets recorded on the different instruments were then merged and sorted by shotpoint number (= Field File Identification number (FFID)) and channel number. The geometry (calculated using Green Mountain Geophysics Inc.crooked-line-geometry software) was then added to the merged file using the shot and receiver locations shown in Tables 1 through 4. Offsets for stations to the east for lines 1 and 6 and to the south for Line 9 are defined as having negative offset. Shotpoints 606 and 607 were set off by a wrist watch and are 3-4 s late. This has not been altered in the data on the tapes. The correct static to apply to bring these shot times back to a zero start time is 3750 ms back towards zero for shotpoint 606 and 2950 ms back towards zero for shotpoint 607.

The final merged SEGY files sampled at 8 ms, with trace lengths of 60 s can be obtained from

Jim Fowler,
I.R.I.S.,
1616 N. Ft. Myer Dr.,
Suite 1050,
Rosslyn, VA 22209

7) RECORD SECTIONS

Shot gathers of all the vertical component data and select horizontal component data are shown in this section. The horizontal data was generally of poor quality with very low signal to noise and with small ranges of energy propagation laterally. The best example from each line is shown here (shotpoints 104, 605 and 906).

All sections are displayed as trace normalized plots with a reduction velocity of 6 km/s for the vertical component data and 3.46 km/s for horizontal component data, such that the reduced time shown on the time axis of the plots is given by

$$T_R = T - x/6 \text{ (vertical components)}$$
or
$$T_R = T - x/3.46 \text{ (horizontal components)}$$

where x is the offset in km and T is the unreduced time in seconds. A 2 -16 Hz bandpass filter was applied to the data. No elevation statics have been applied although the elevation plots shown in Figure 3 show that there is a large variation in elevation across each line.

Shotpoints 606 and 607 were set off by a wrist watch and are 3-4 s late. The plots shown in this section have had a static shift applied to them to bring the shot times back to zero start time. Shotpoint 606 has had a -3750 ms shift applied to it and shotpoint 607 has had a - 2950 ms shift applied to it. Shotpoint 102 does not start at zero because it was about 1 km off the line of receivers, in an orchard which was probably underlain by lower velocity sediment than the material underlying the closest receivers.

Sections are vertical component sections unless they are marked as north-south or east-west component sections.

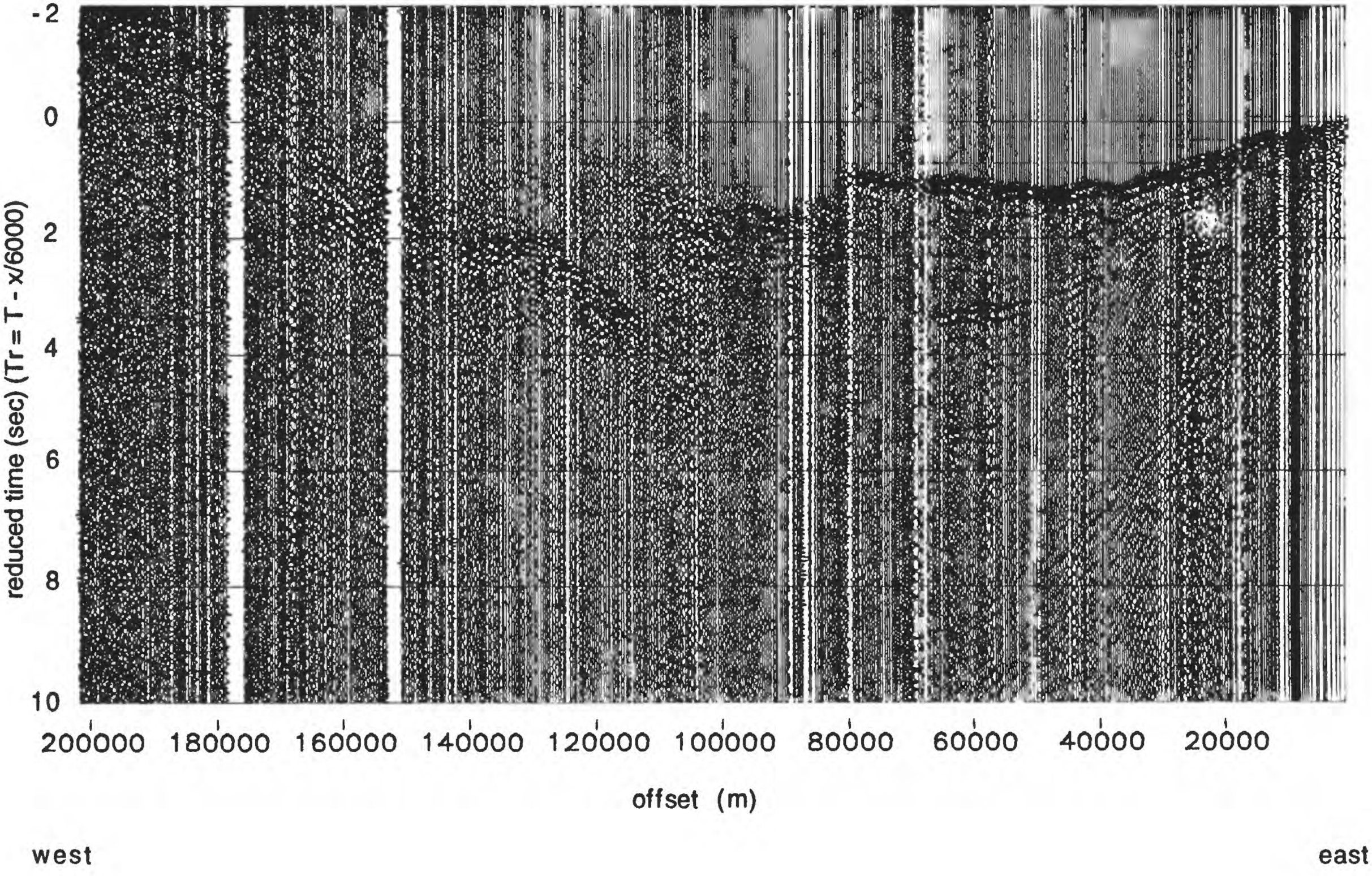


Figure 12: Shot gather for shotpoint 101 (vertical component, reduced at 6 km/s)

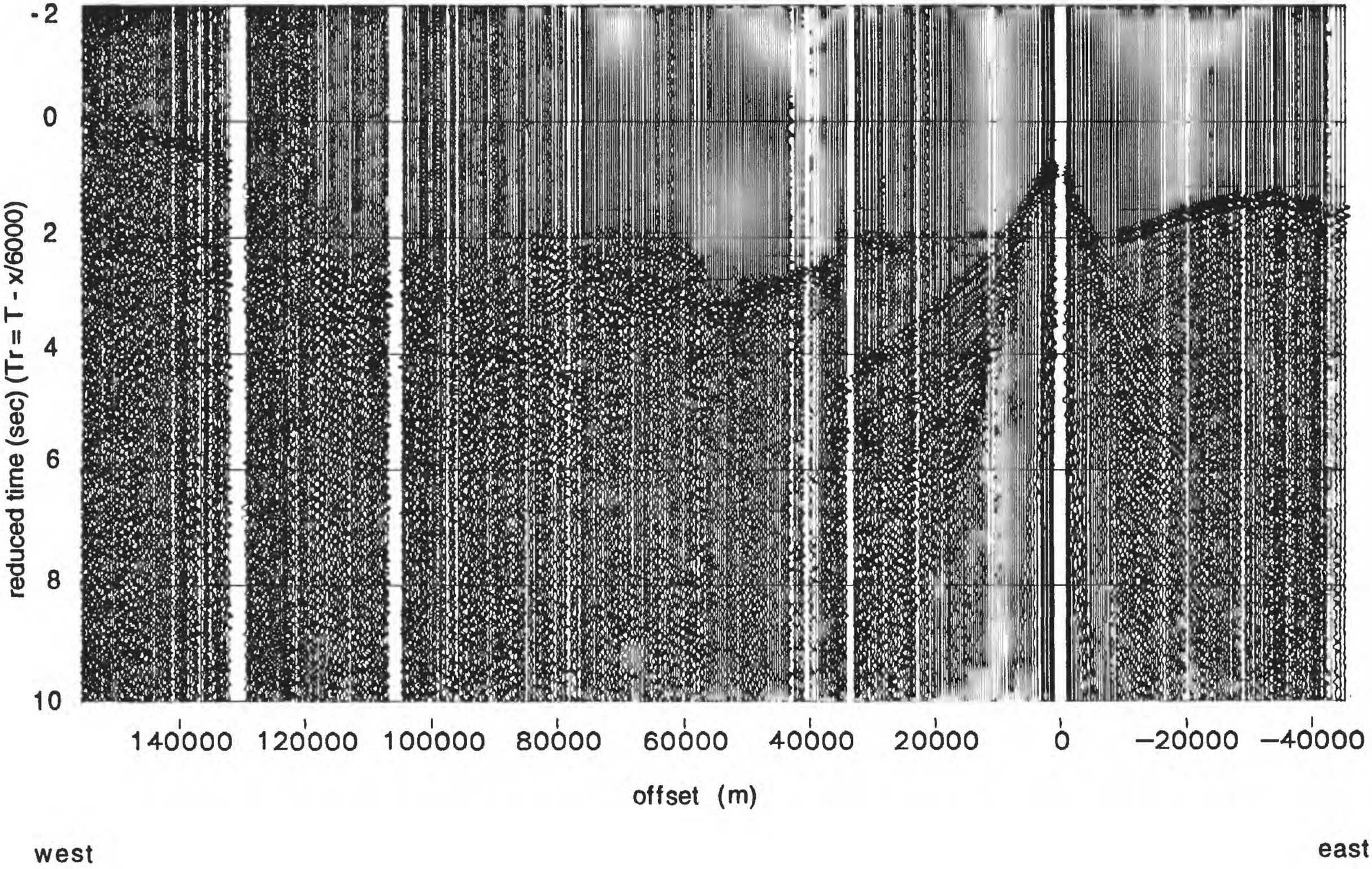


Figure 13: Shot gather for shotpoint 102 (vertical component, reduced at 6 km/s)

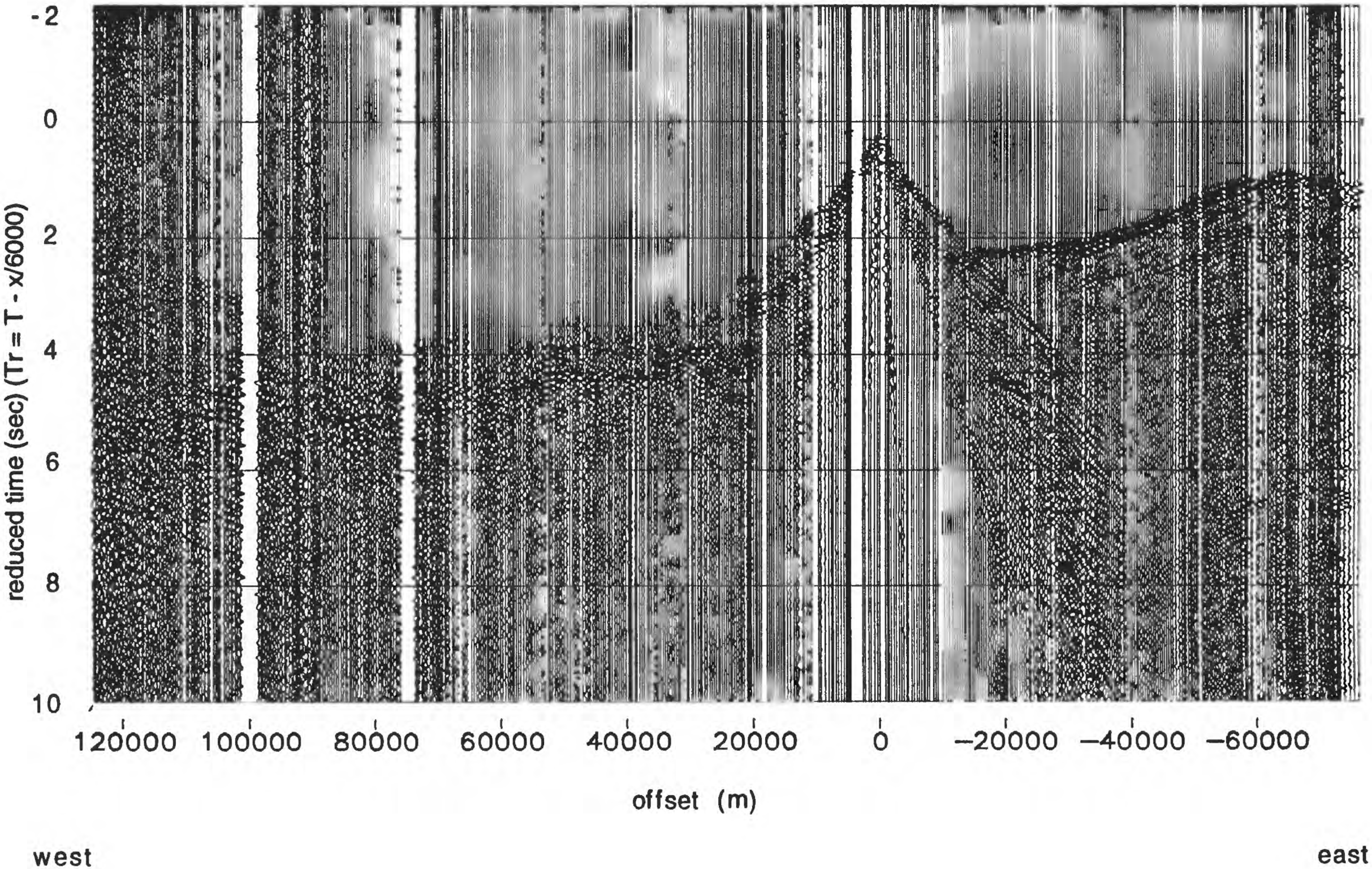


Figure 14: Shot gather for shotpoint 103 (vertical component, reduced at 6 km/s)

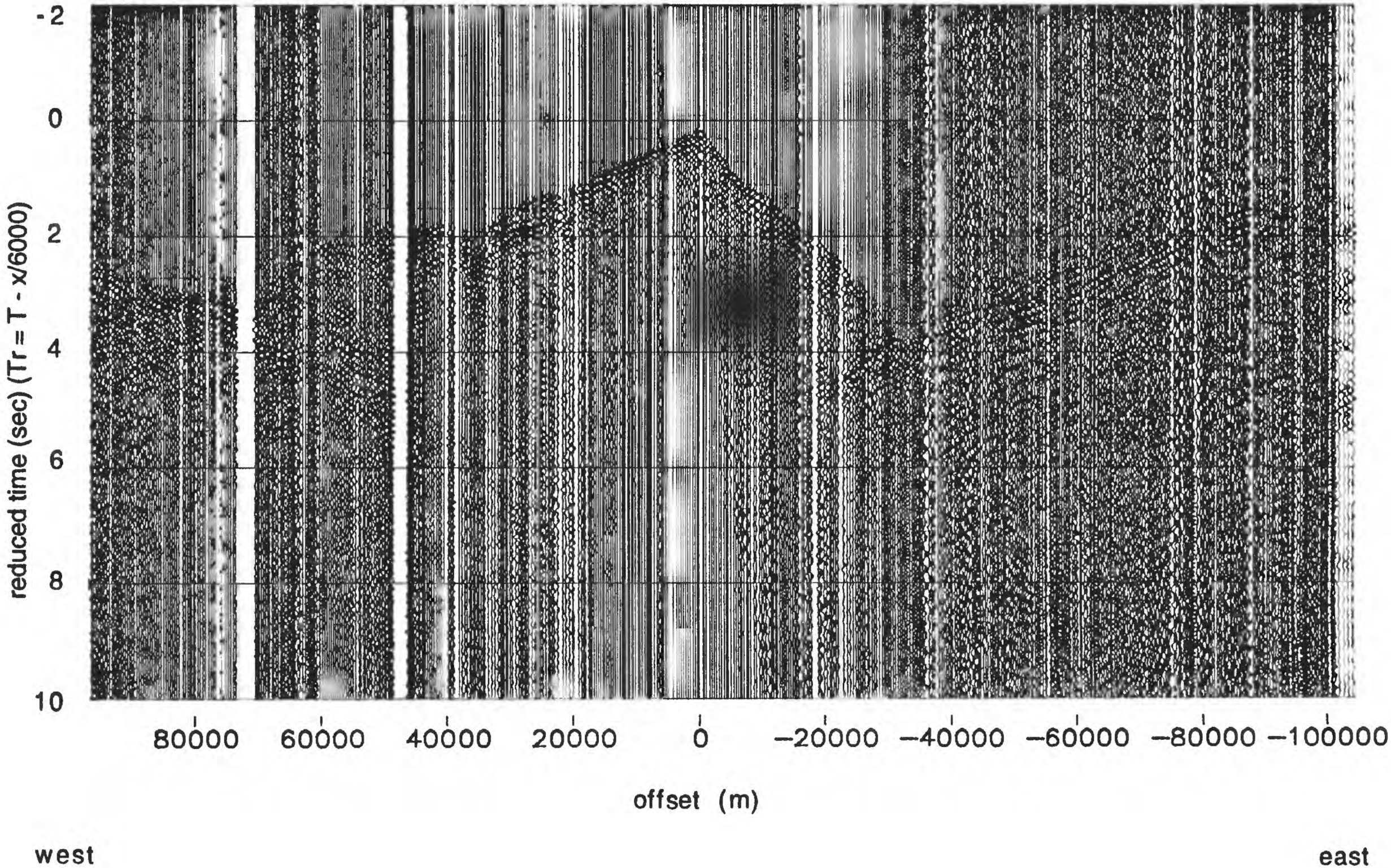


Figure 15: Shot gather for shotpoint 104 (vertical component, reduced at 6 km/s)

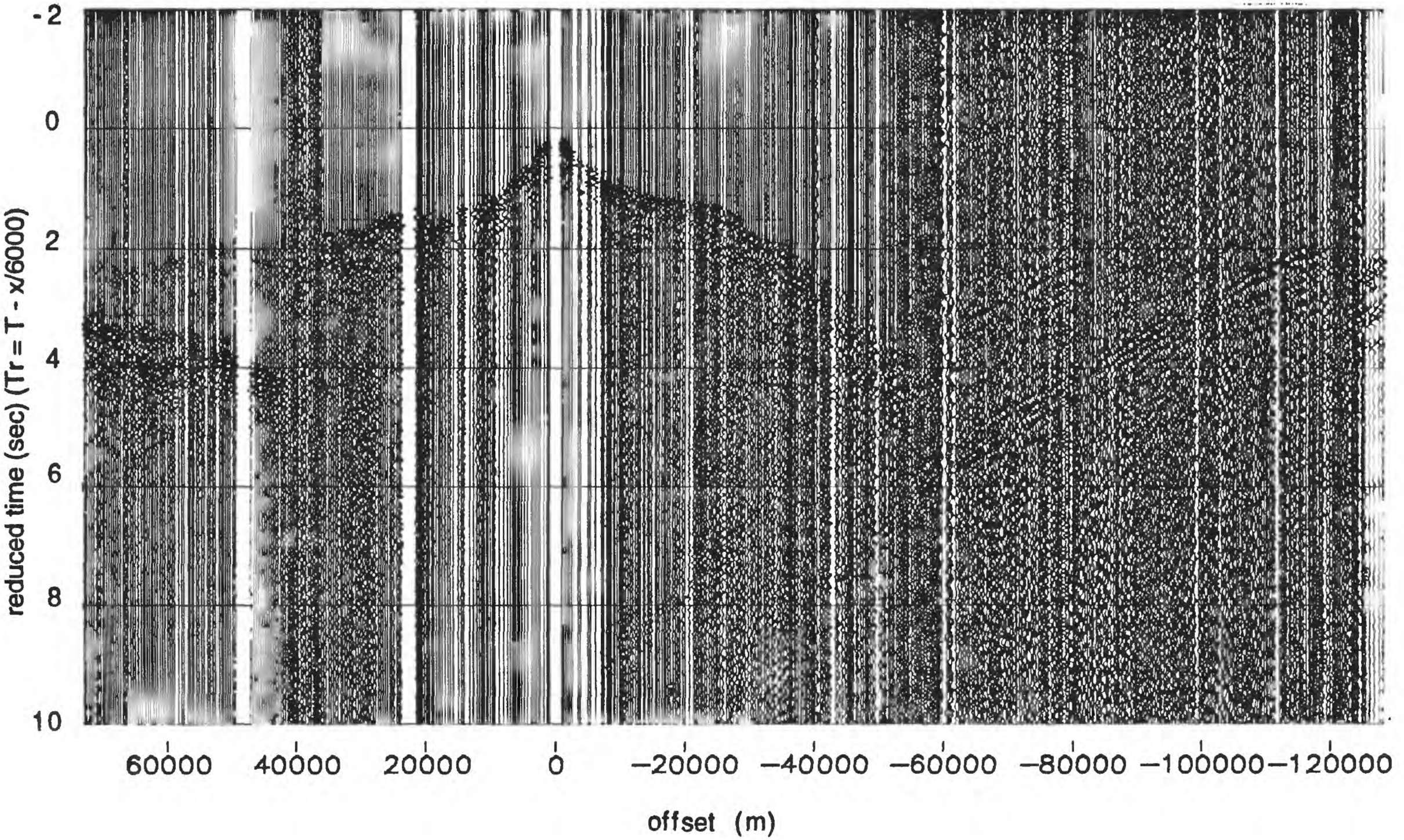


Figure 16: Shot gather for shotpoint 105 (vertical component, reduced at 6 km/s)

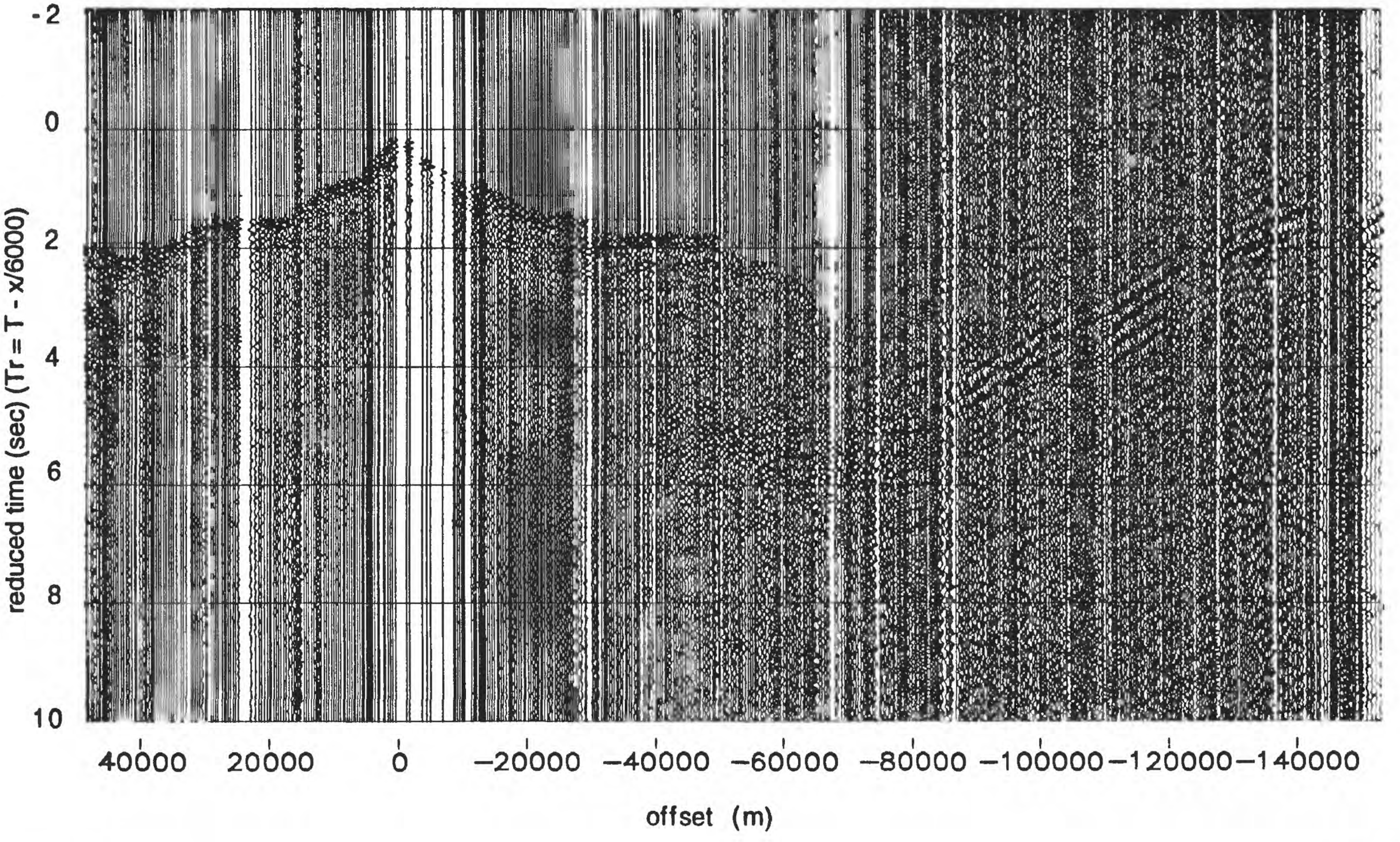


Figure 17: Shot gather for shotpoint 106 (vertical component, reduced at 6 km/s)

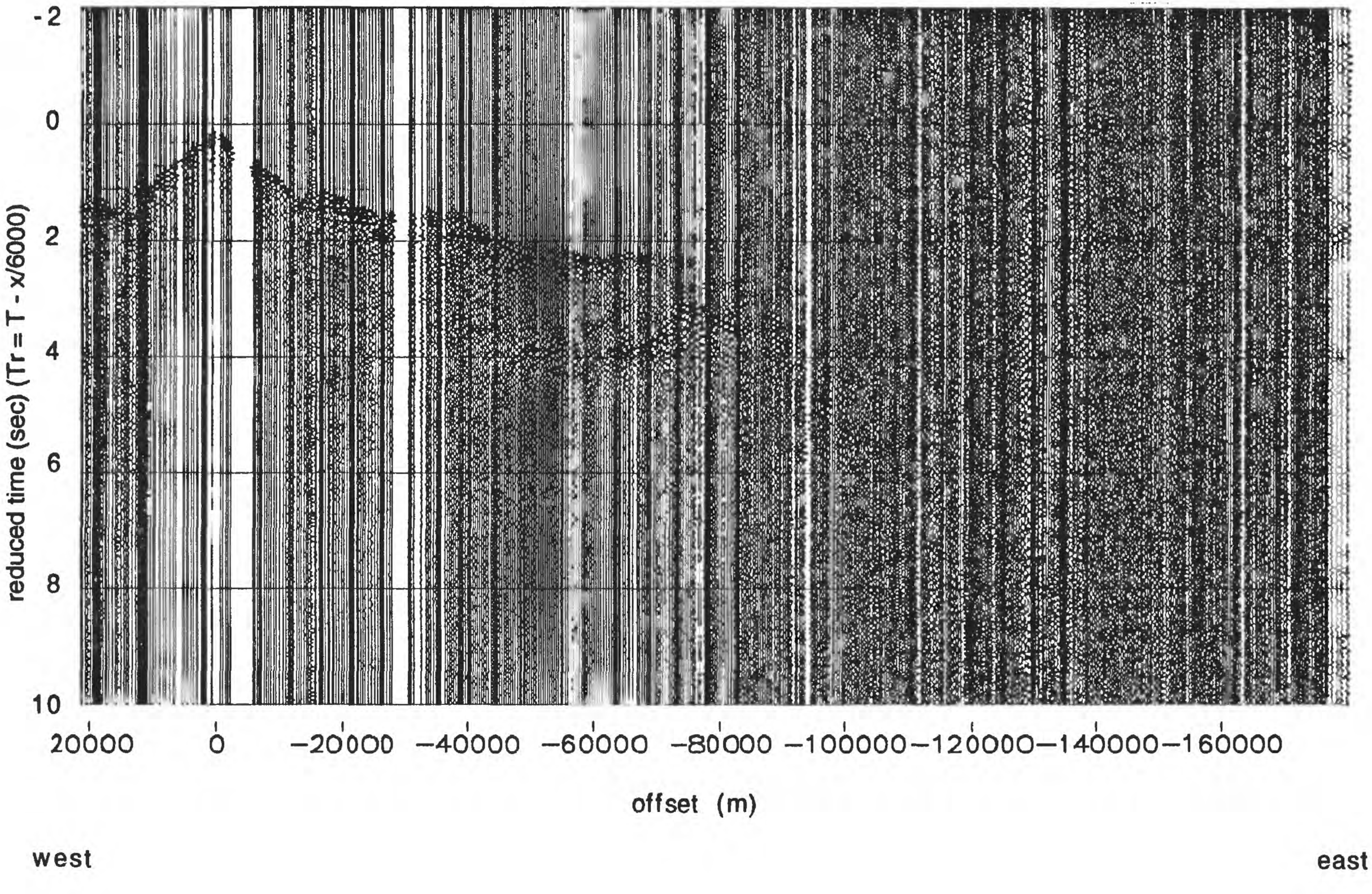


Figure 18: Shot gather for shotpoint 107 (vertical component, reduced at 6 km/s)

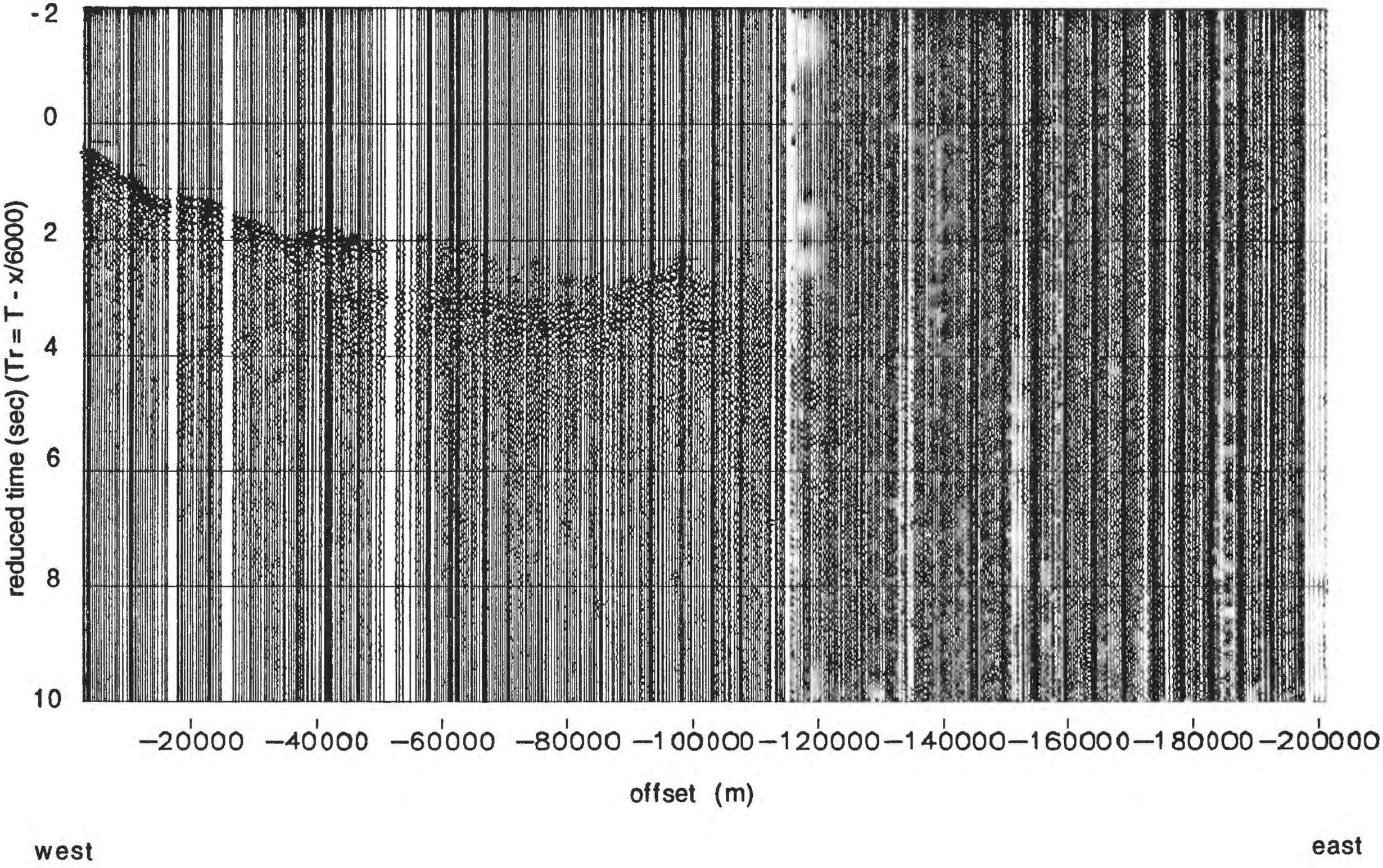


Figure 19: Shot gather for shotpoint 108 (vertical component, reduced at 6 km/s)

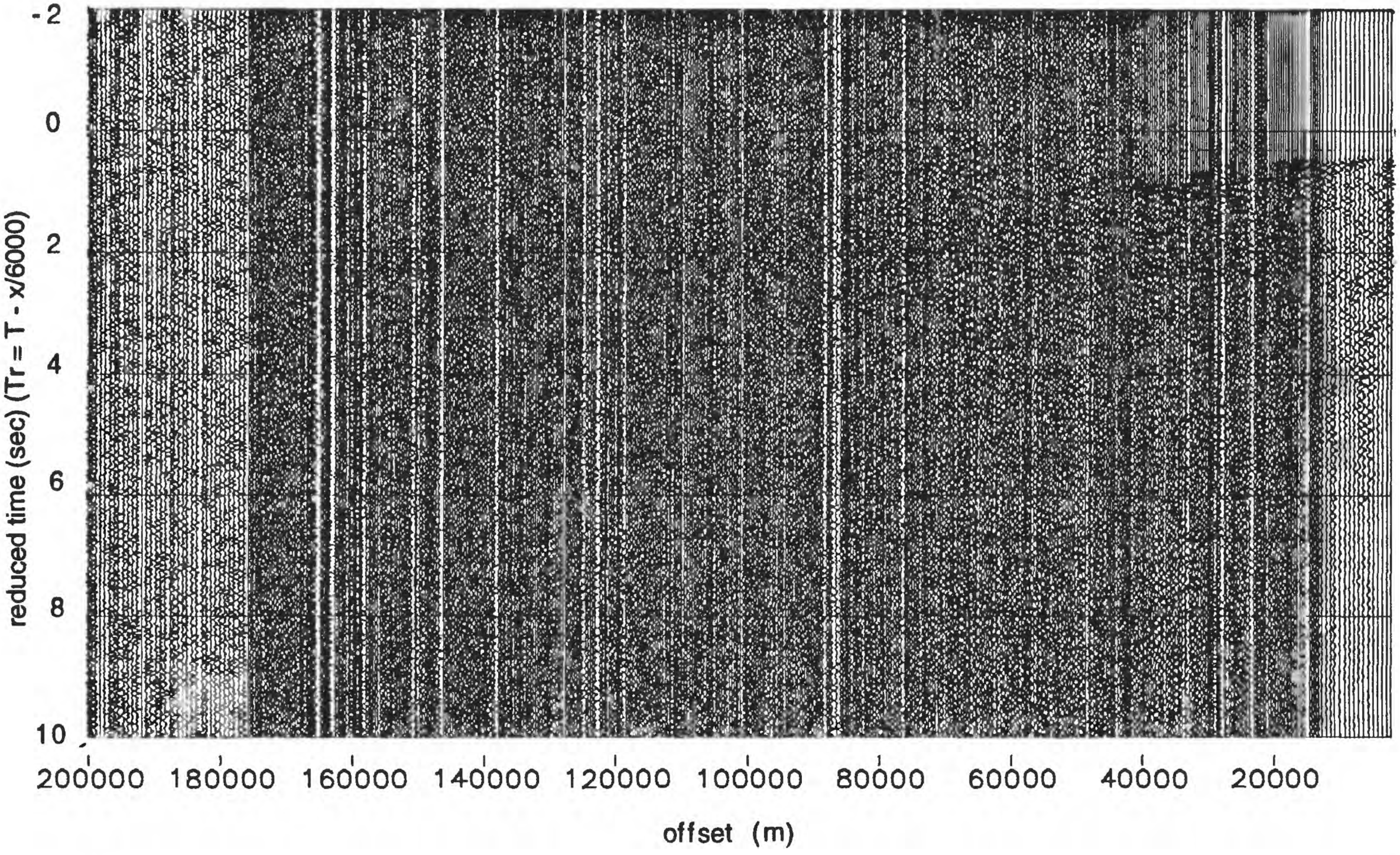


Figure 20: Shot gather for shotpoint 601 (vertical component, reduced at 6 km/s)

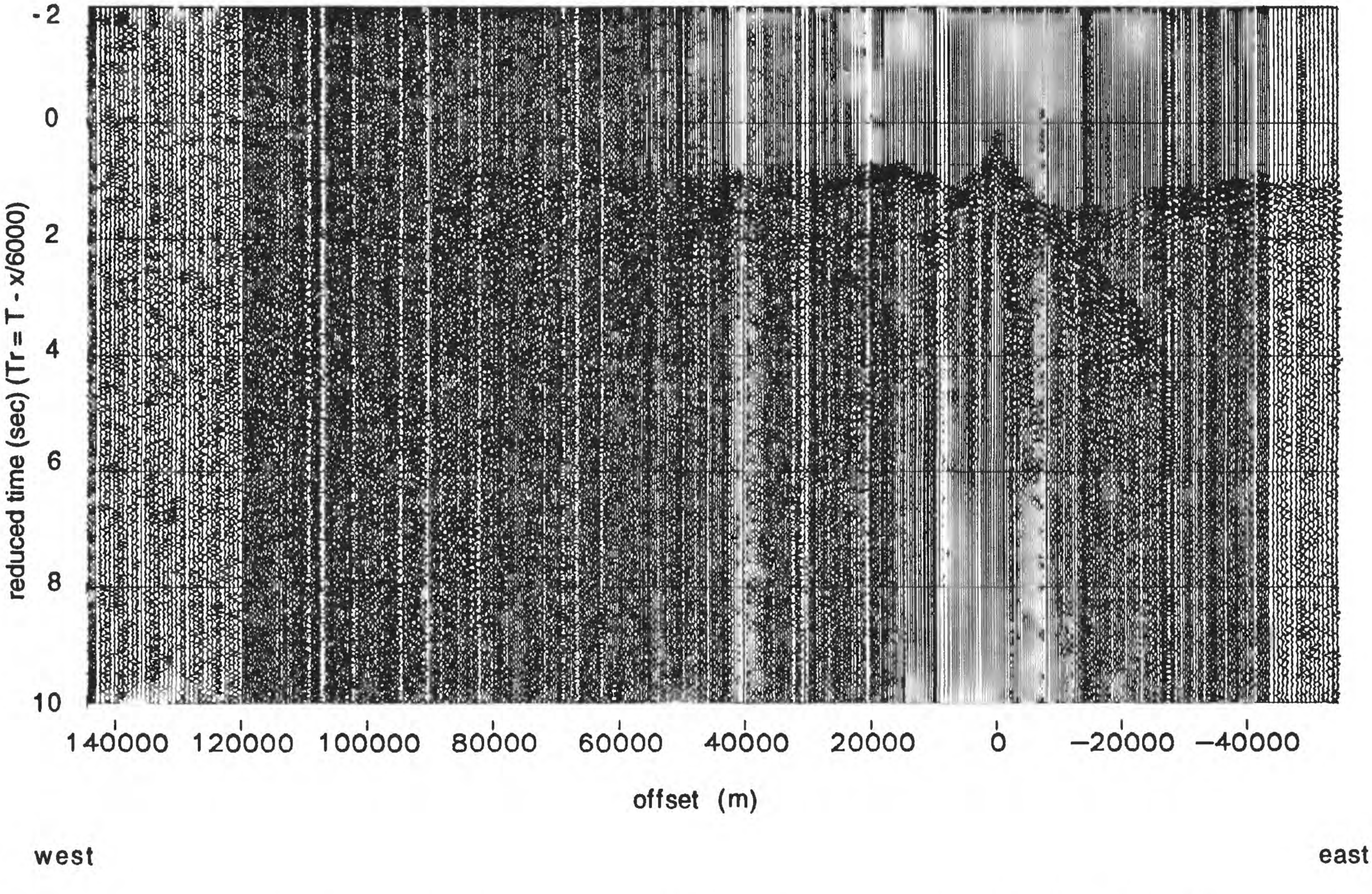


Figure 21: Shot gather for shotpoint 602 (vertical component, reduced at 6 km/s)

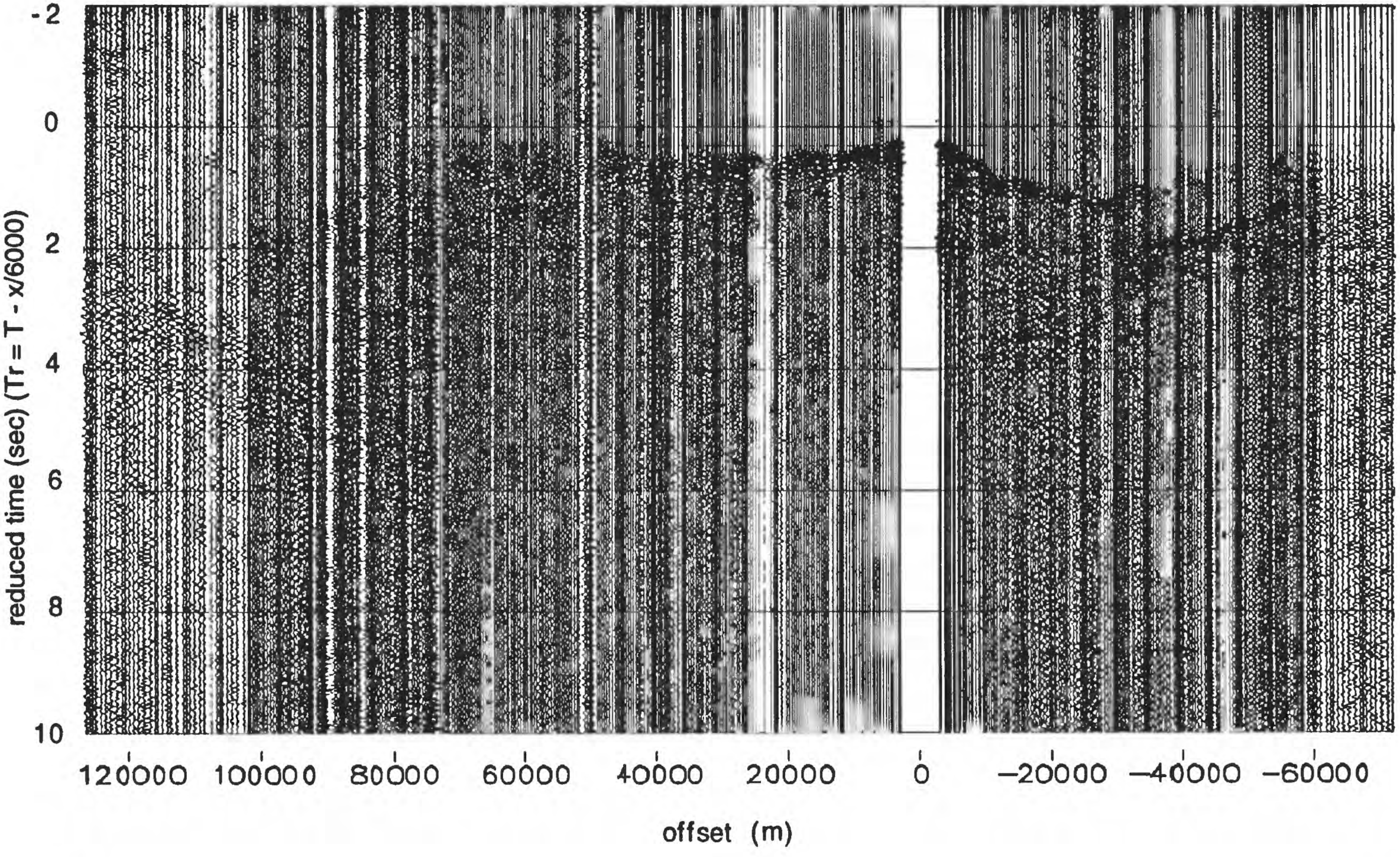


Figure 22: Shot gather for shotpoint 603 (vertical component, reduced at 6 km/s)

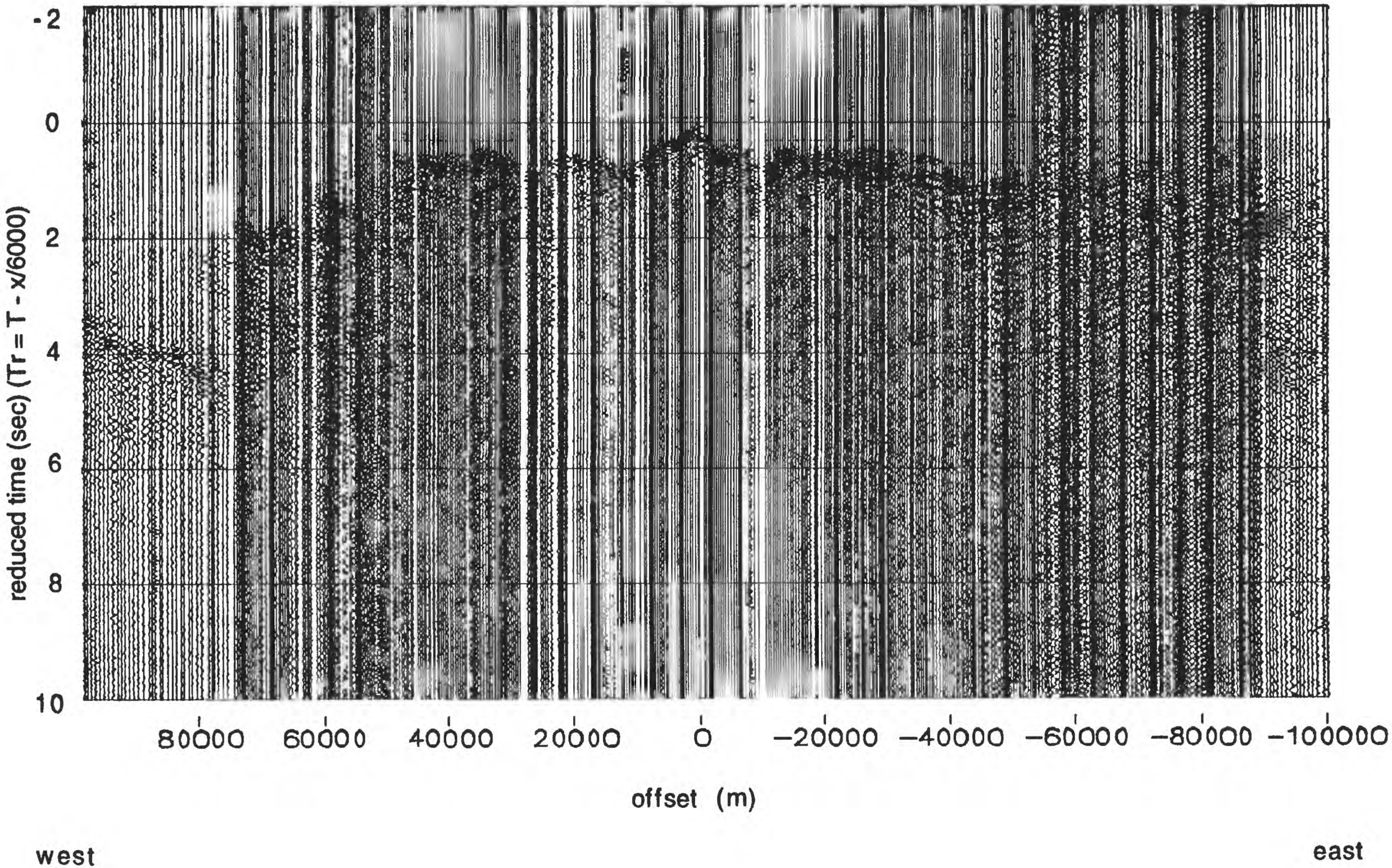


Figure 23: Shot gather for shotpoint 604 (vertical component, reduced at 6 km/s)

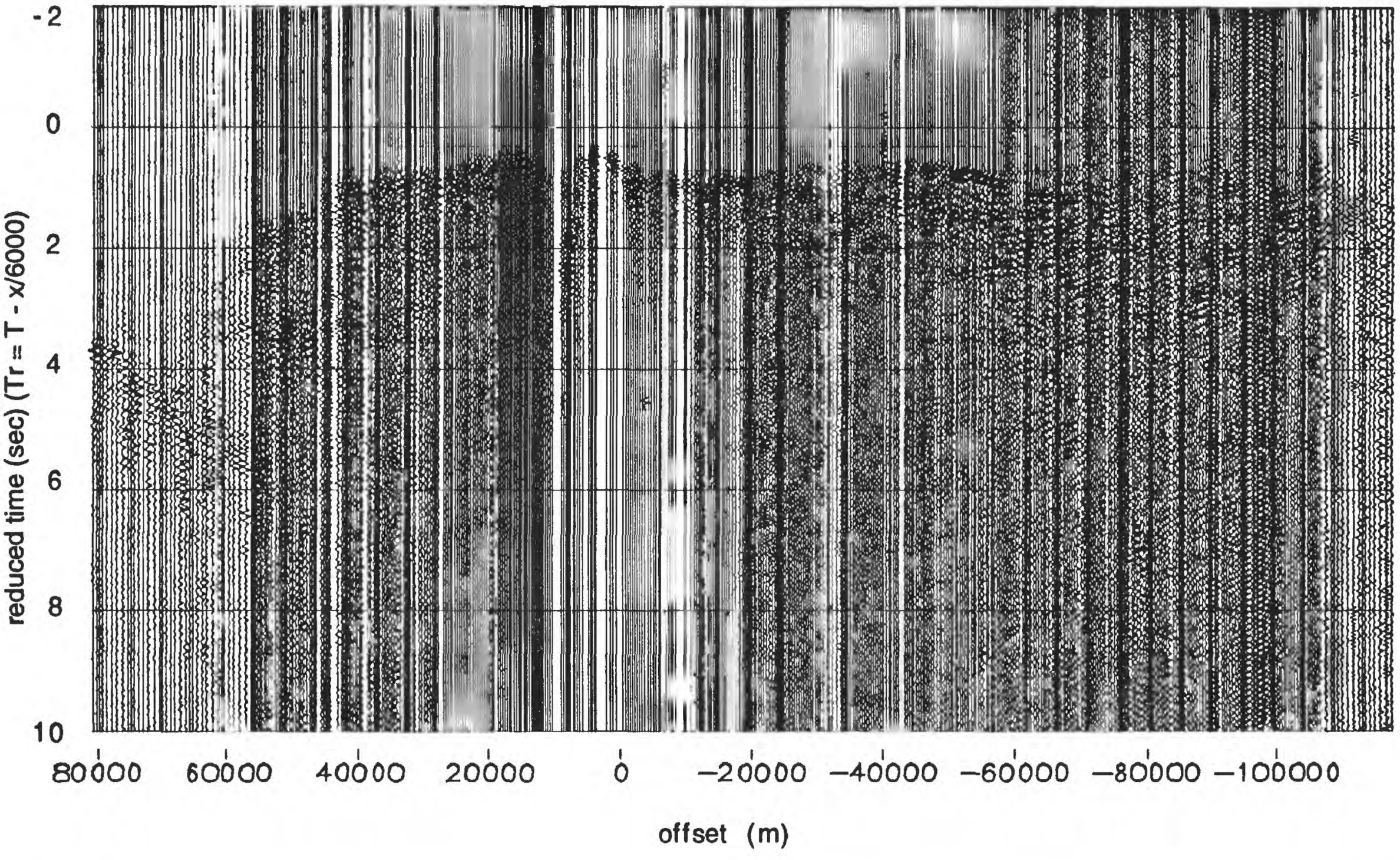


Figure 24: Shot gather for shotpoint 605 (vertical component, reduced at 6 km/s)

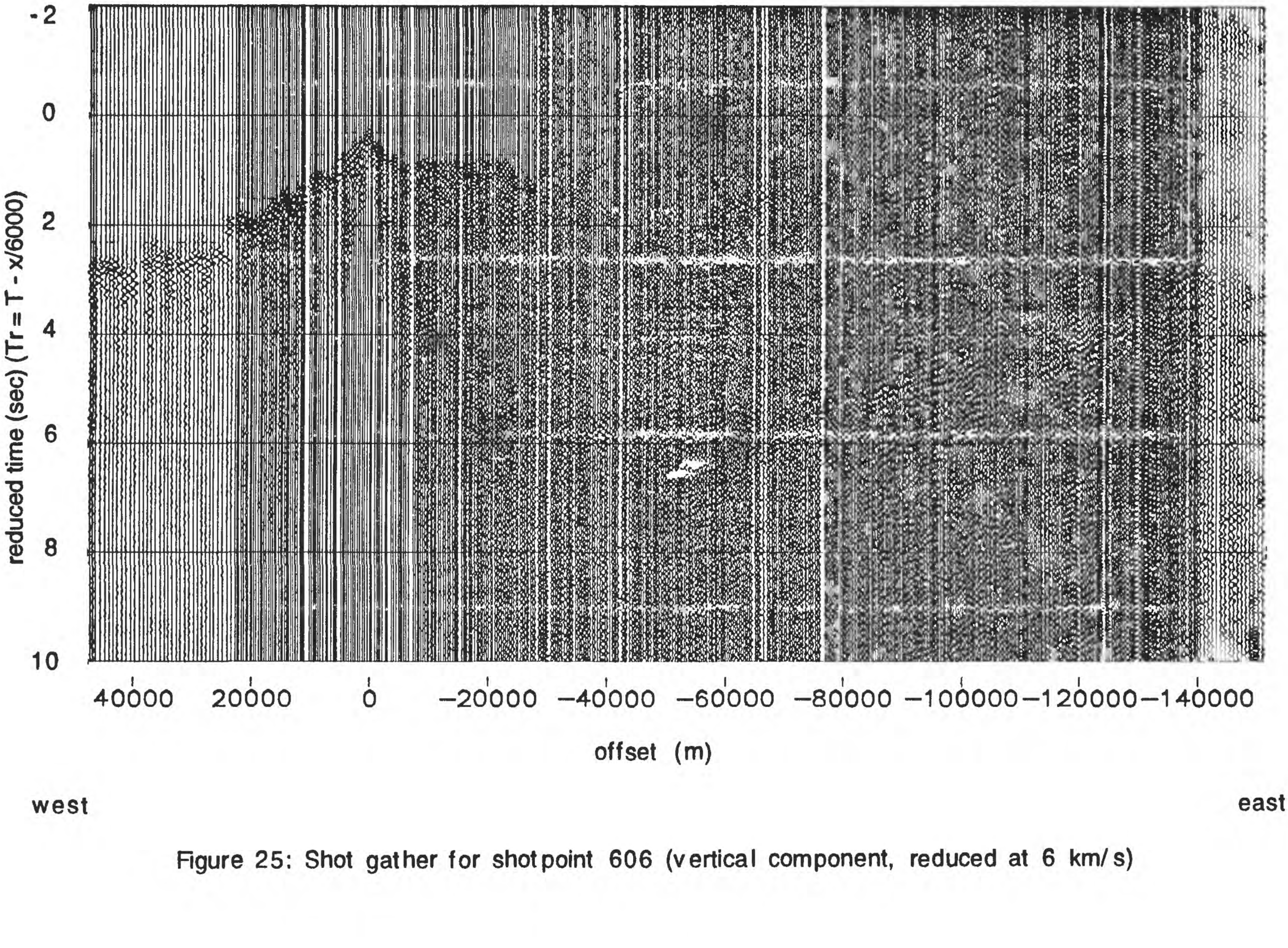


Figure 25: Shot gather for shotpoint 606 (vertical component, reduced at 6 km/s)

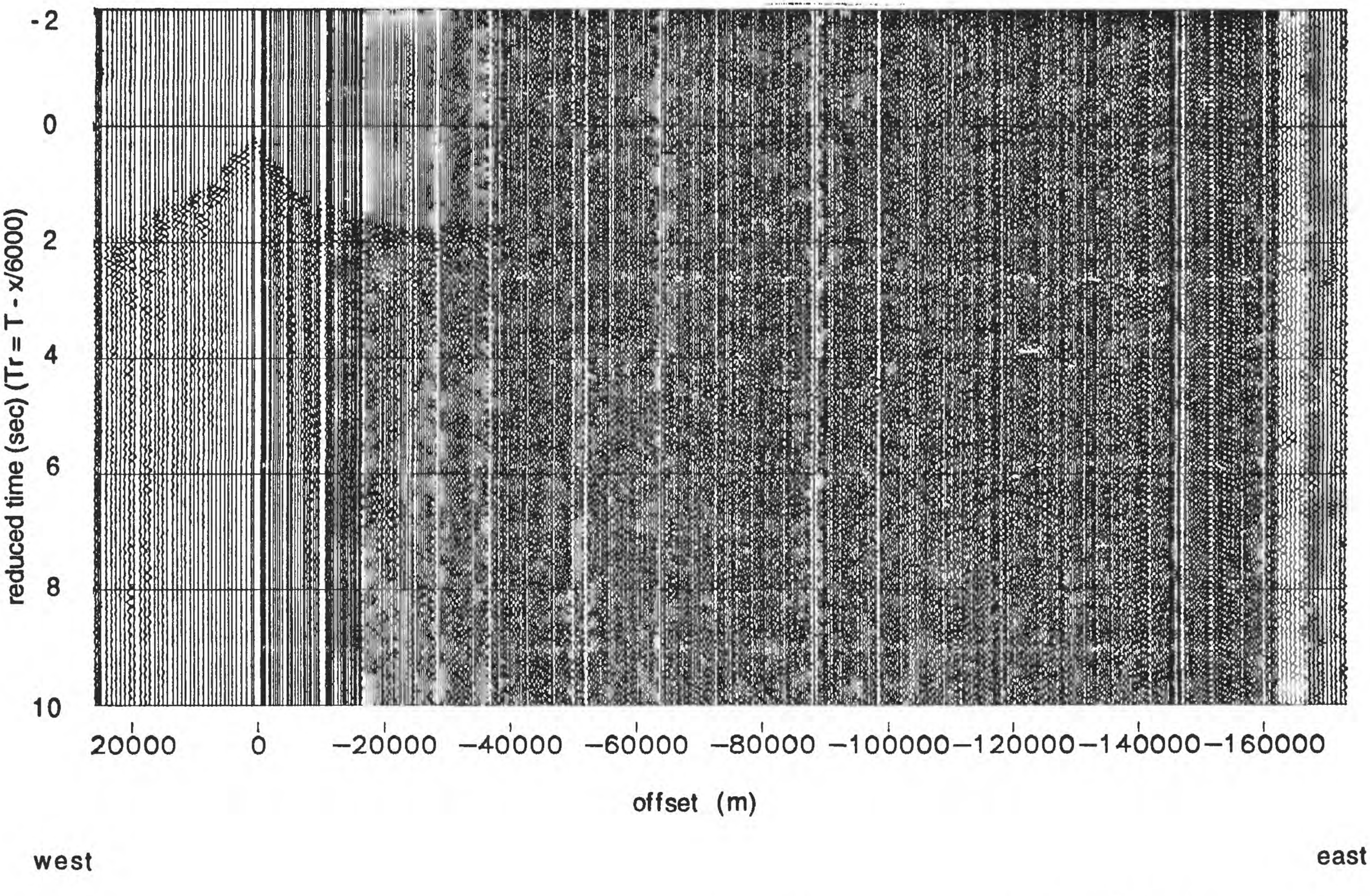


Figure 26: Shot gather for shotpoint 607 (vertical component, reduced at 6 km/s)

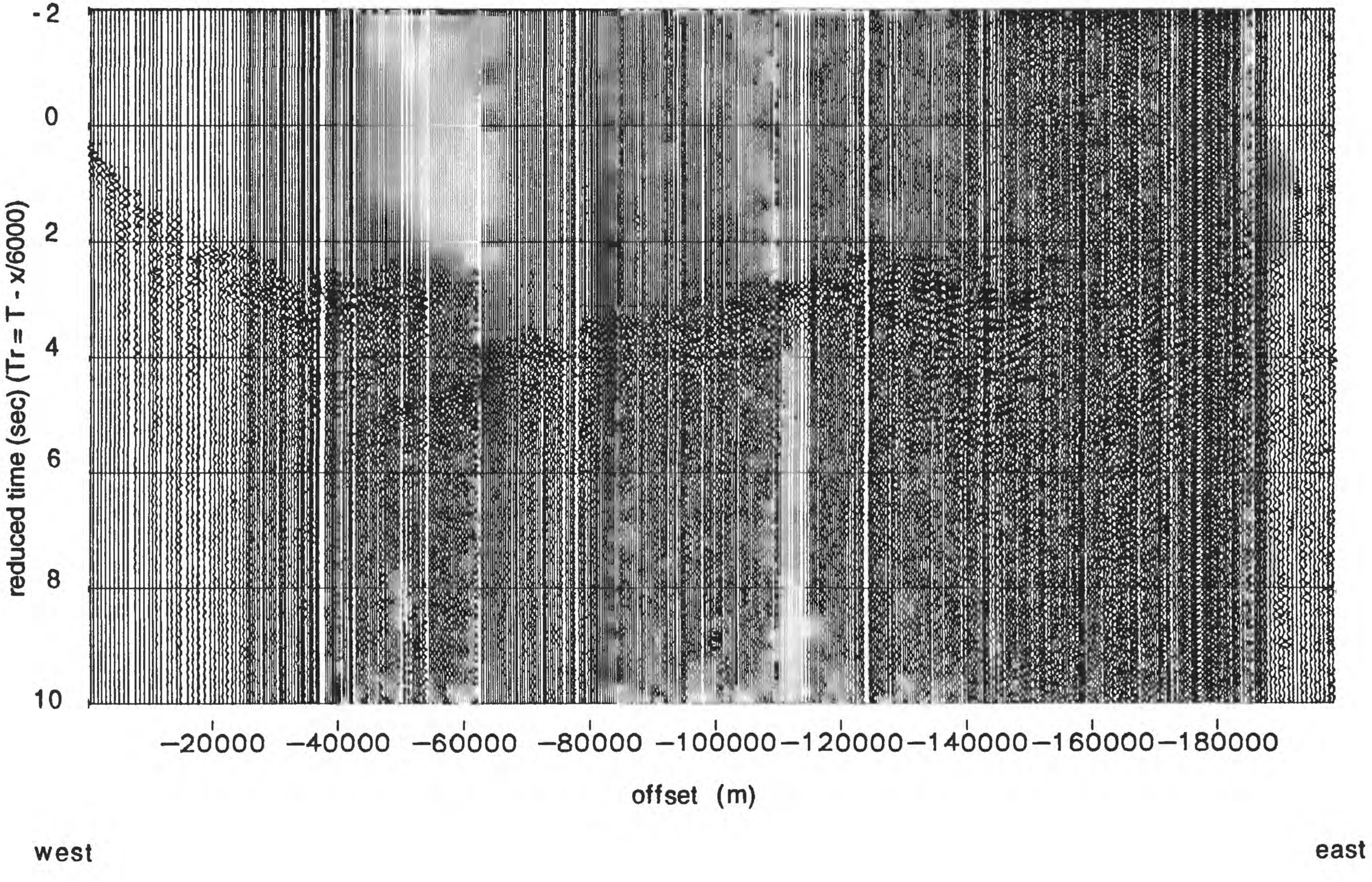


Figure 27: Shot gather for shotpoint 608 (vertical component, reduced at 6 km/s)

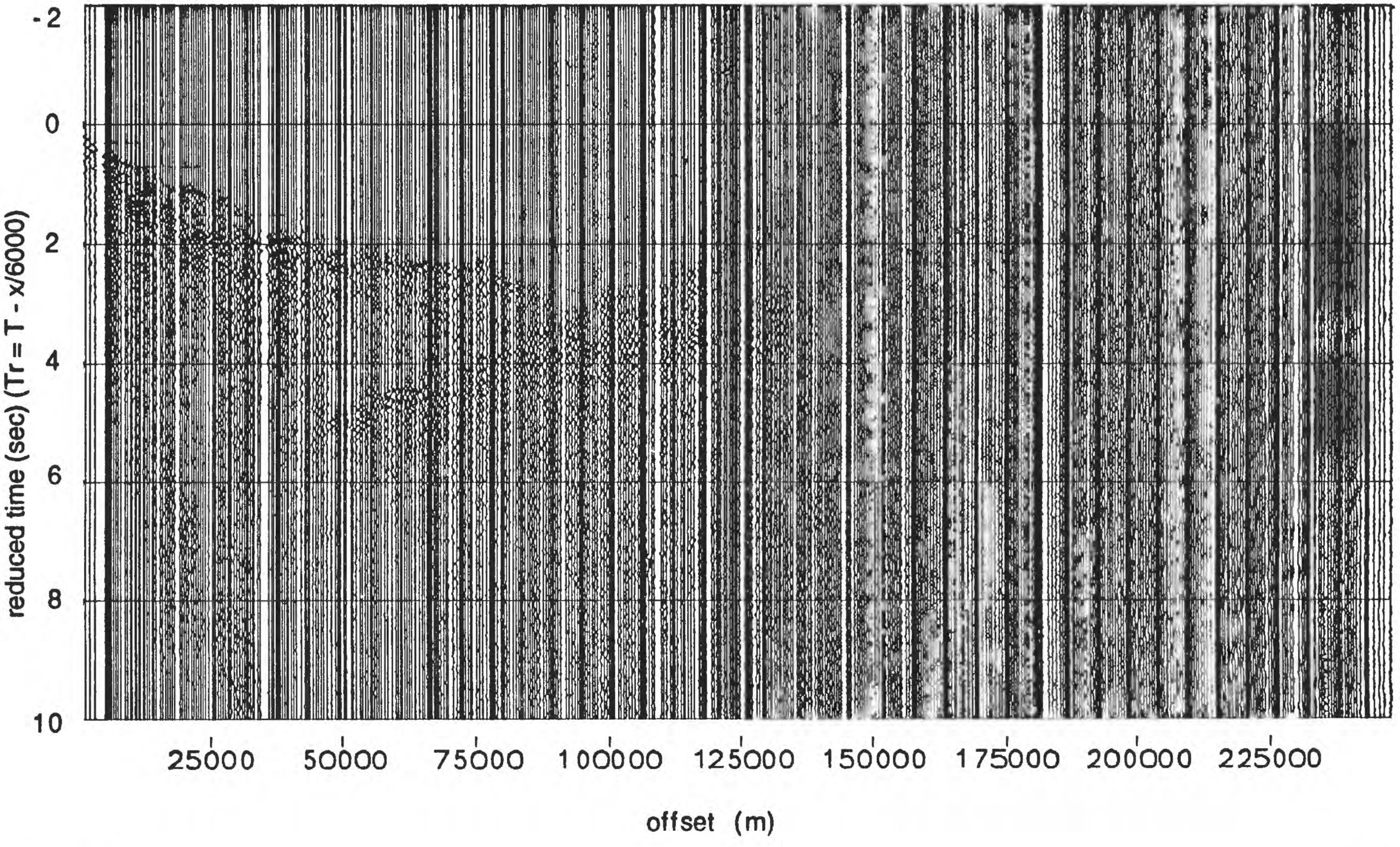


Figure 28: Shot gather for shotpoint 901 (vertical component, reduced at 6 km/s)

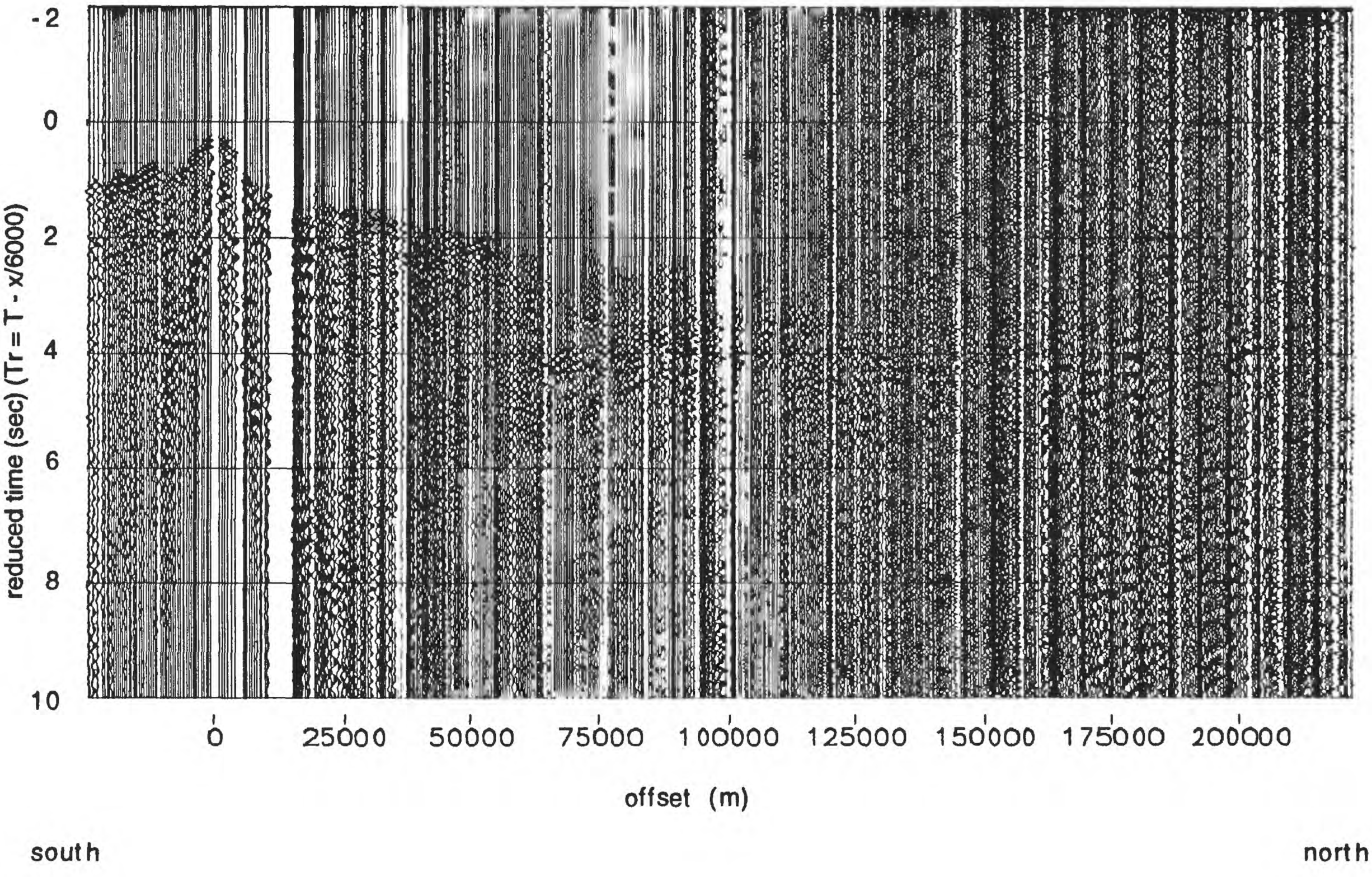


Figure 29: Shot gather for shotpoint 902 (vertical component, reduced at 6 km/s)

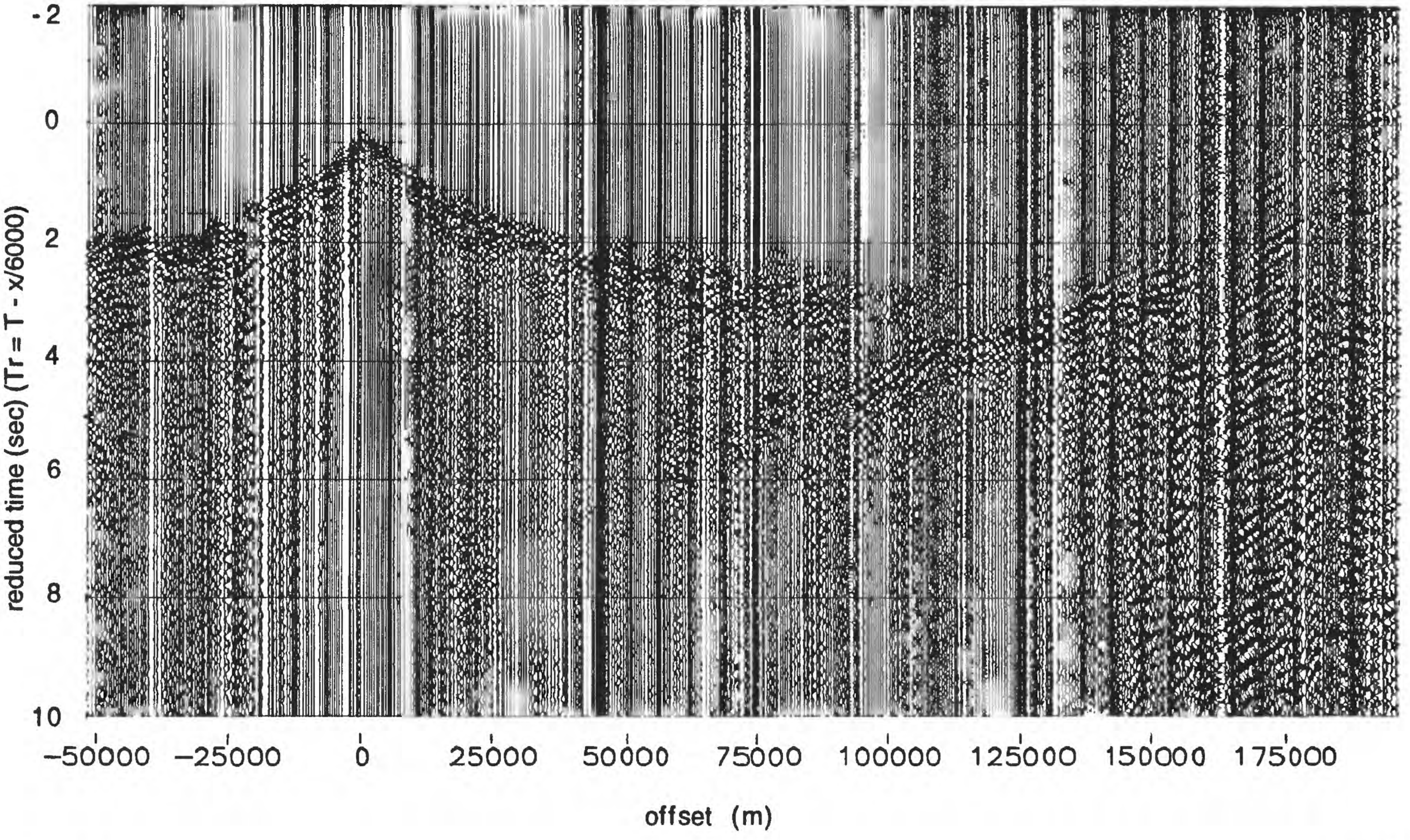


Figure 30: Shot gather for shotpoint 903 (vertical component, reduced at 6 km/s)

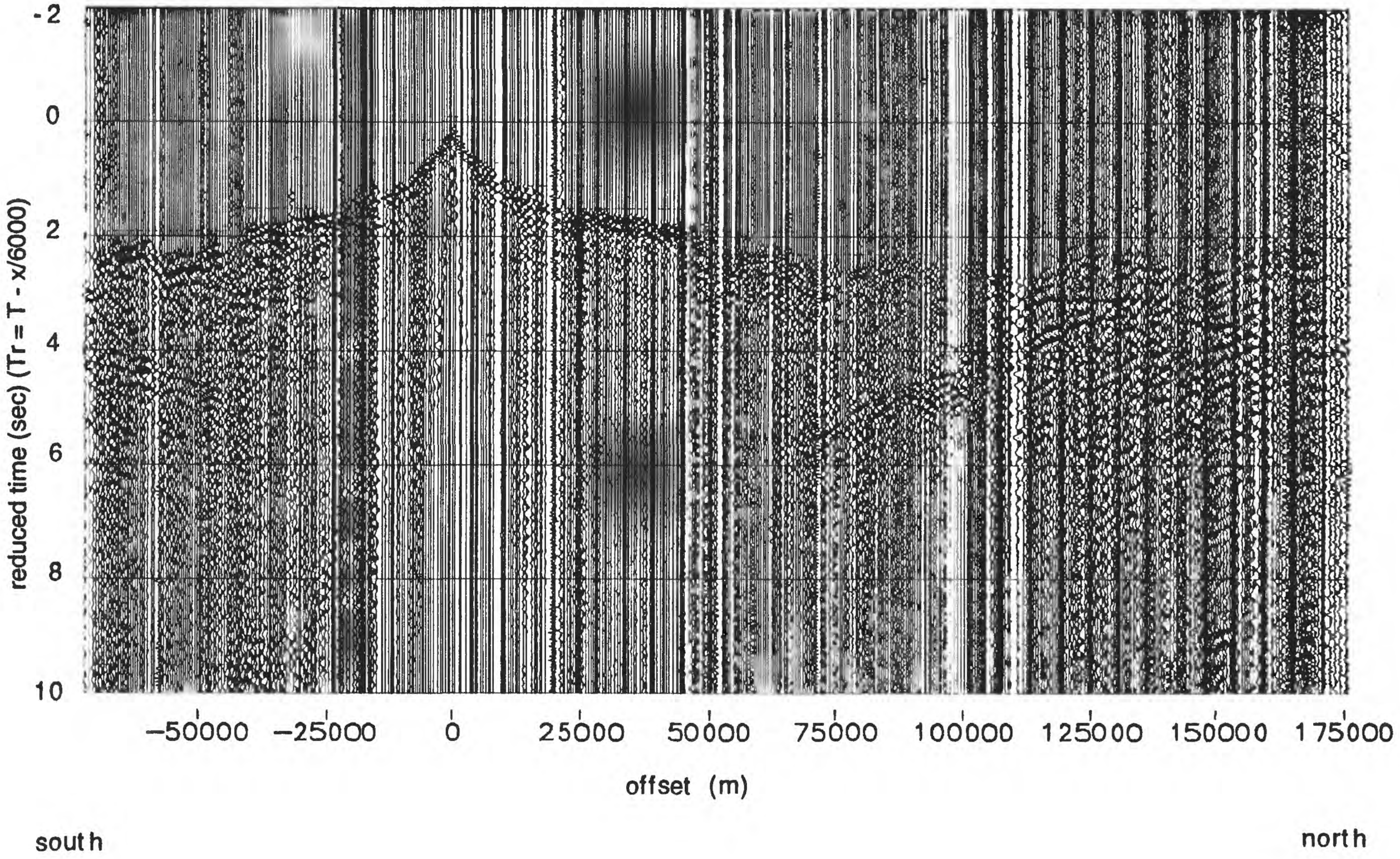


Figure 31: Shot gather for shotpoint 904 (vertical component, reduced at 6 km/s)

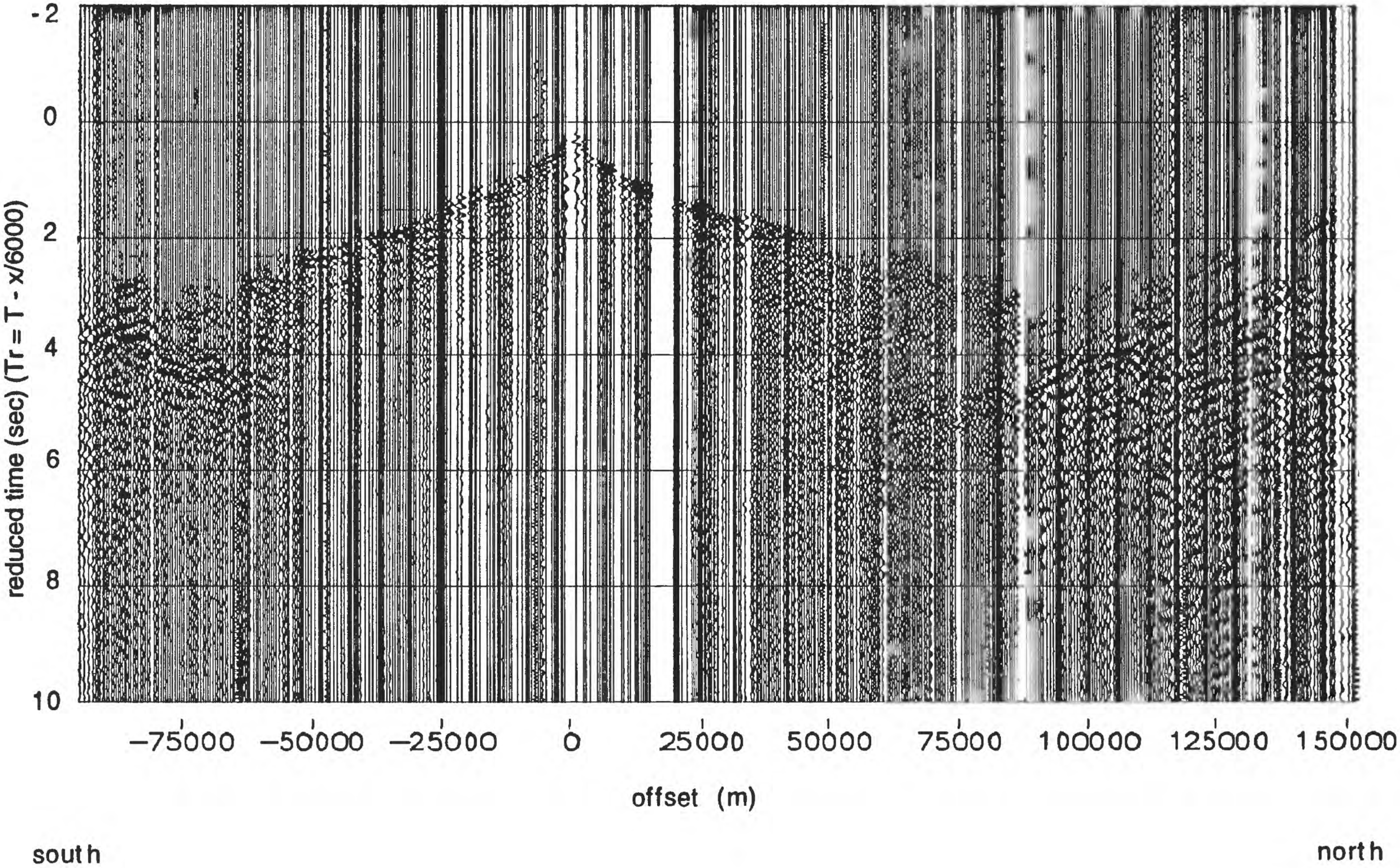


Figure 32: Shot gather for shotpoint 905 (vertical component, reduced at 6 km/s)

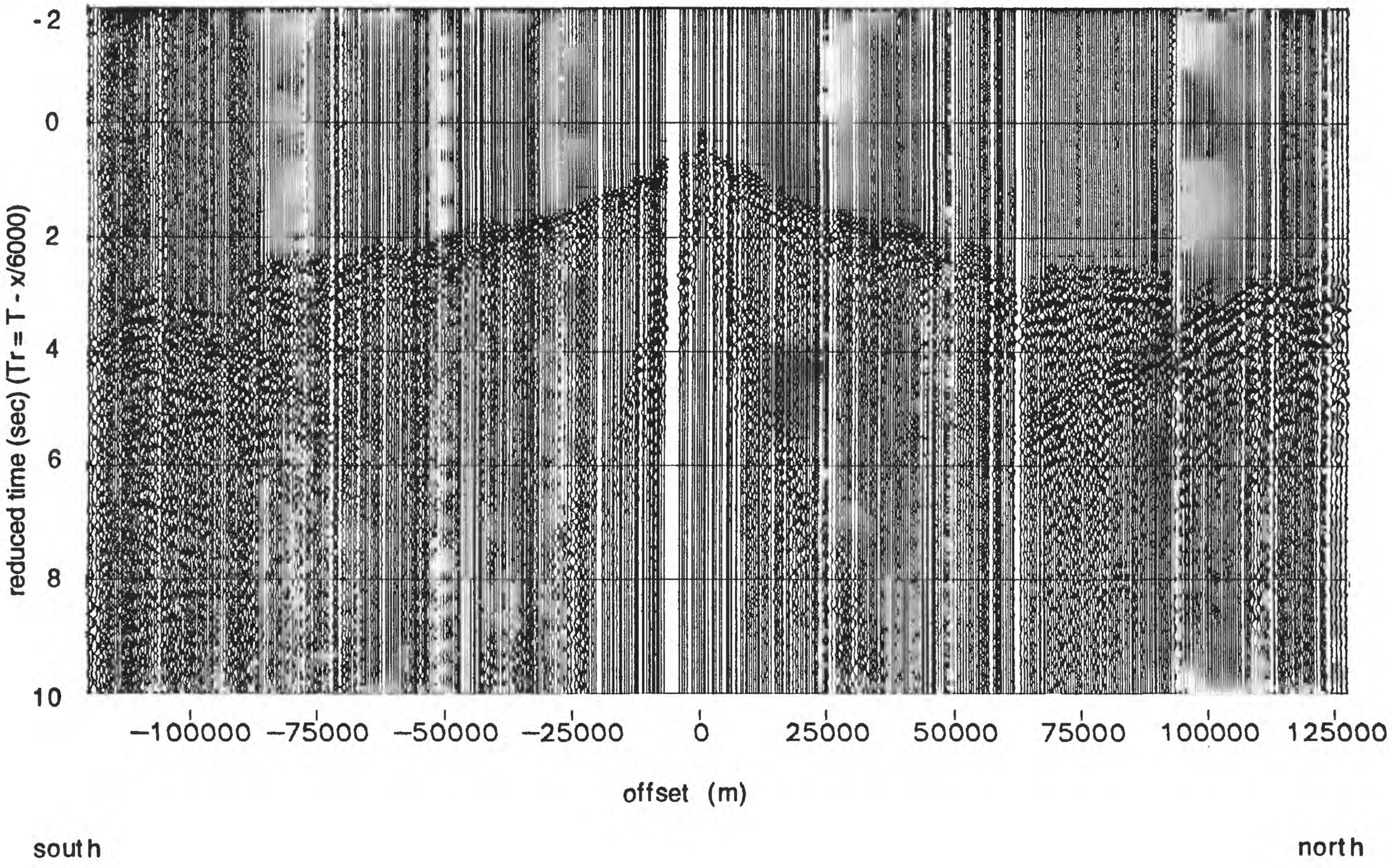


Figure 33: Shot gather for shotpoint 906 (vertical component, reduced at 6 km/s)

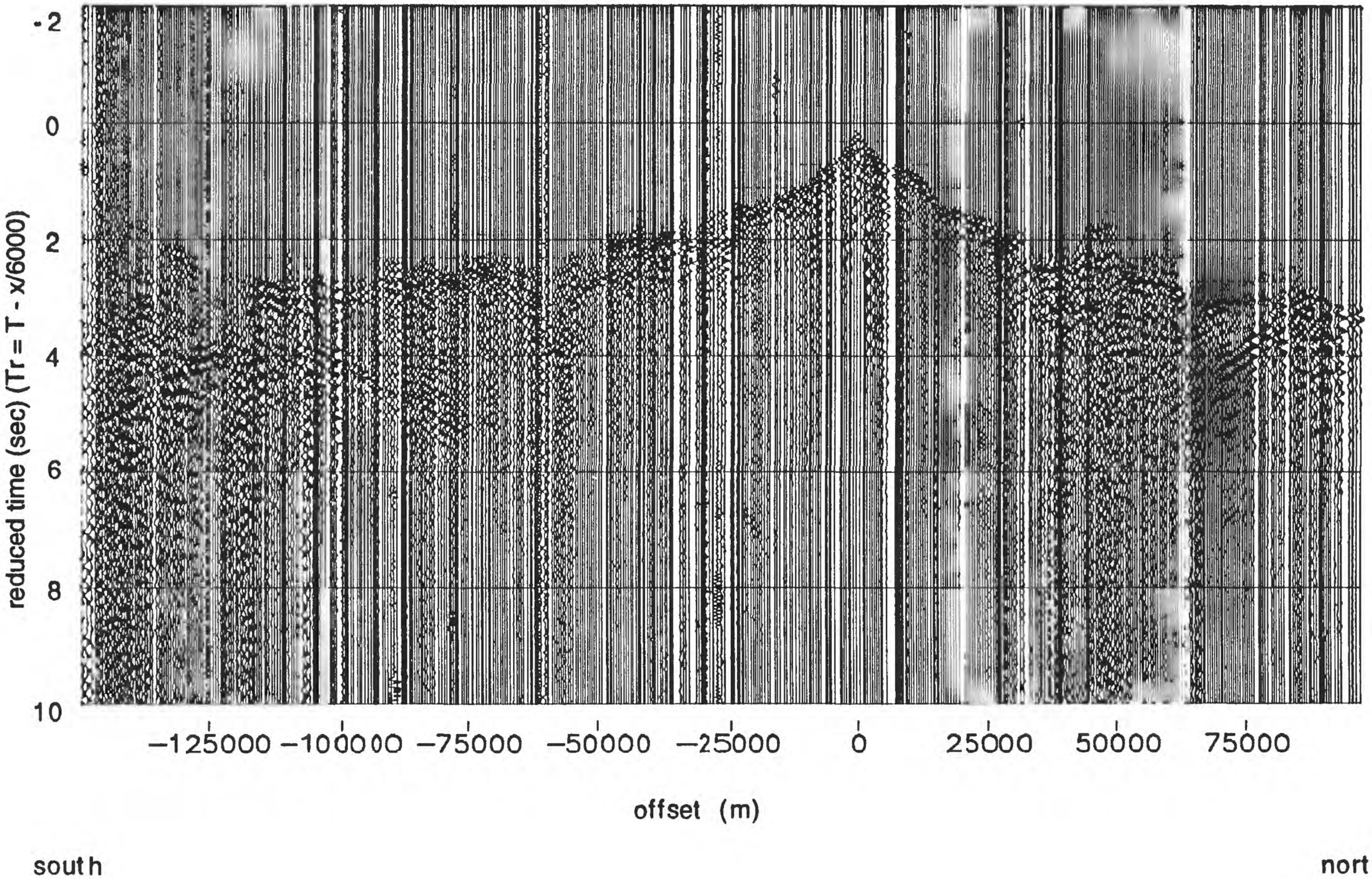


Figure 34: Shot gather for shotpoint 907 (vertical component, reduced at 6 km/s)

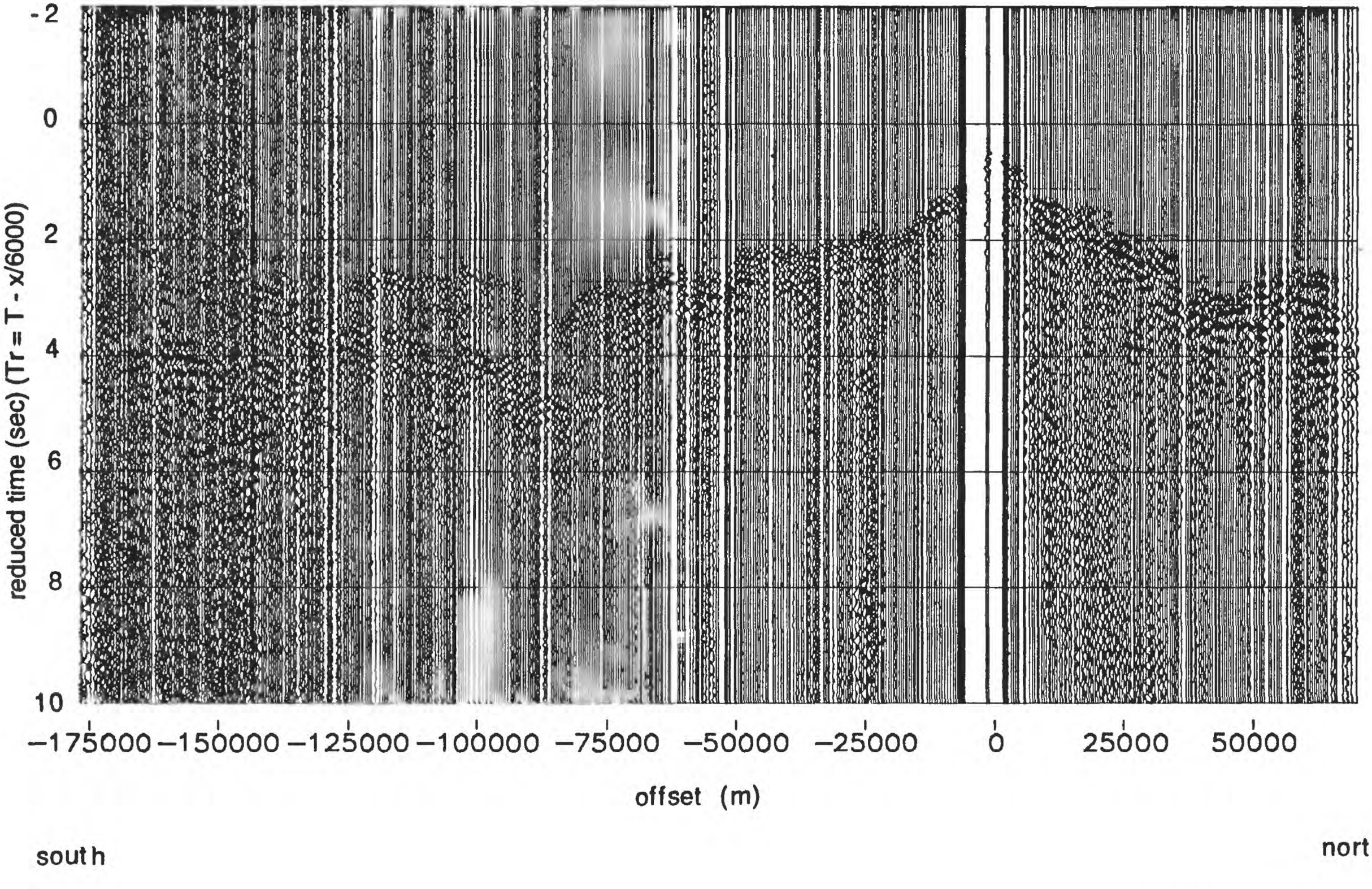


Figure 35: Shot gather for shotpoint 908 (vertical component, reduced at 6 km/s)

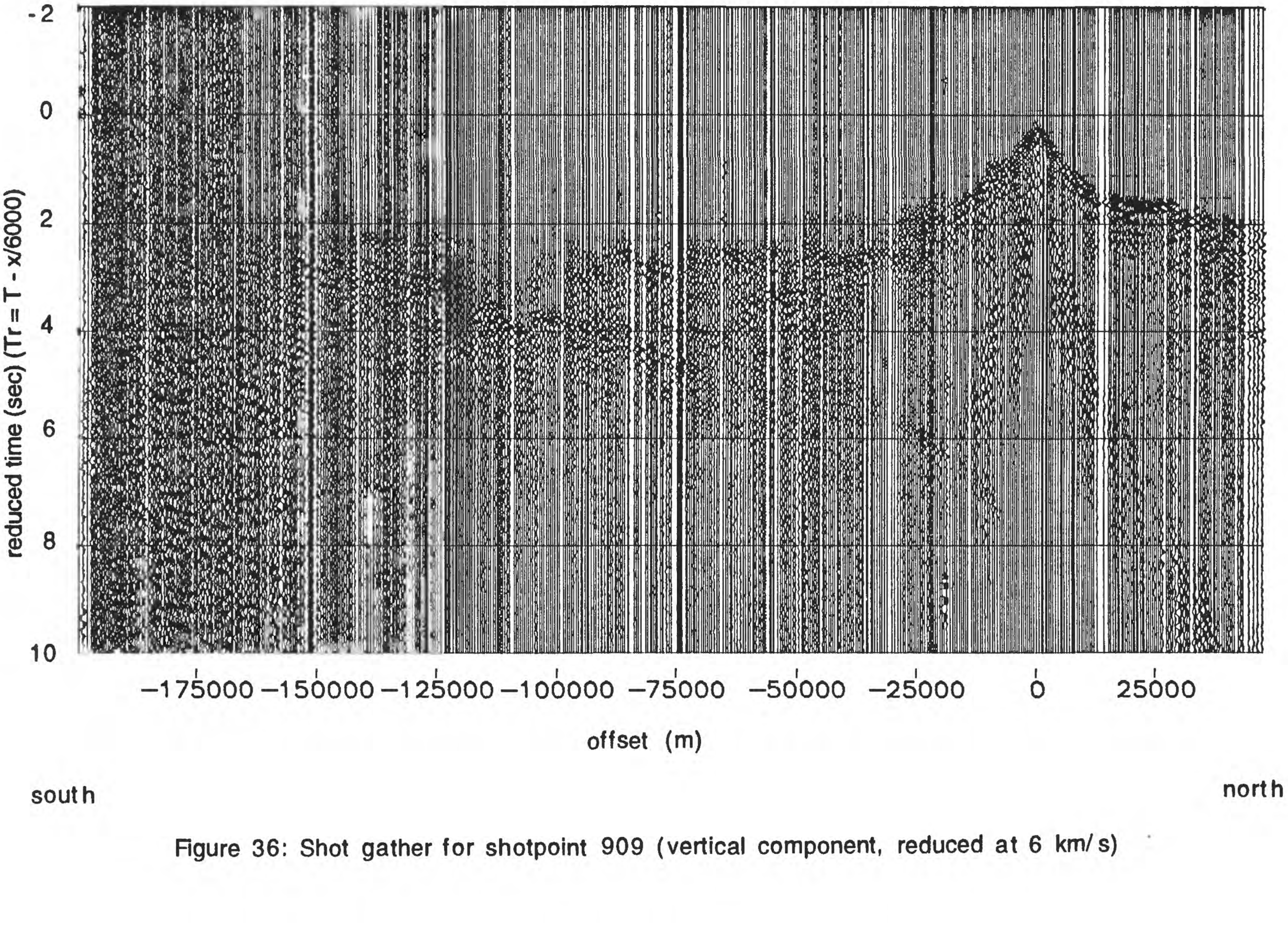


Figure 36: Shot gather for shotpoint 909 (vertical component, reduced at 6 km/s)

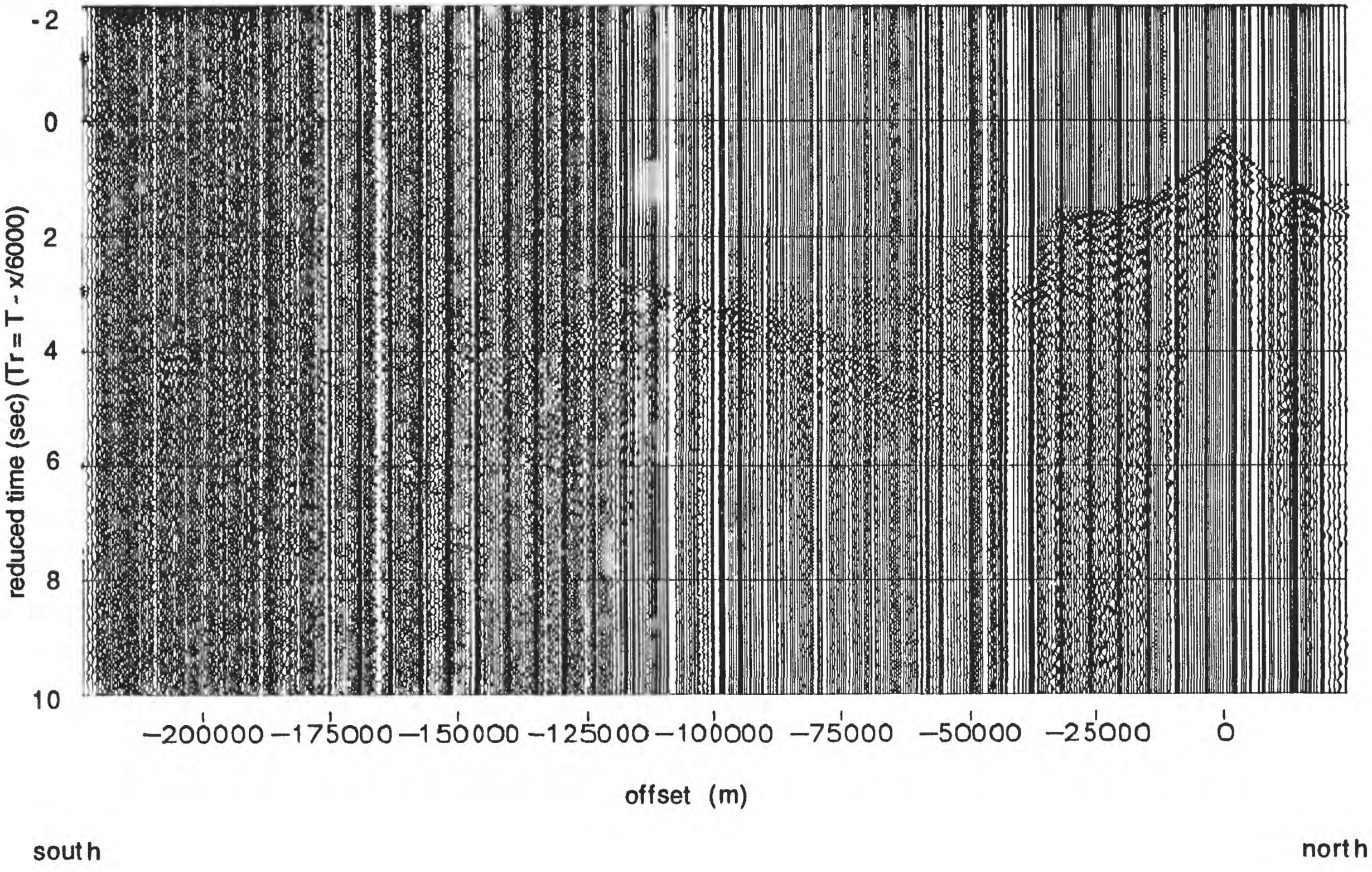


Figure 37: Shot gather for shotpoint 910 (vertical component, reduced at 6 km/s)

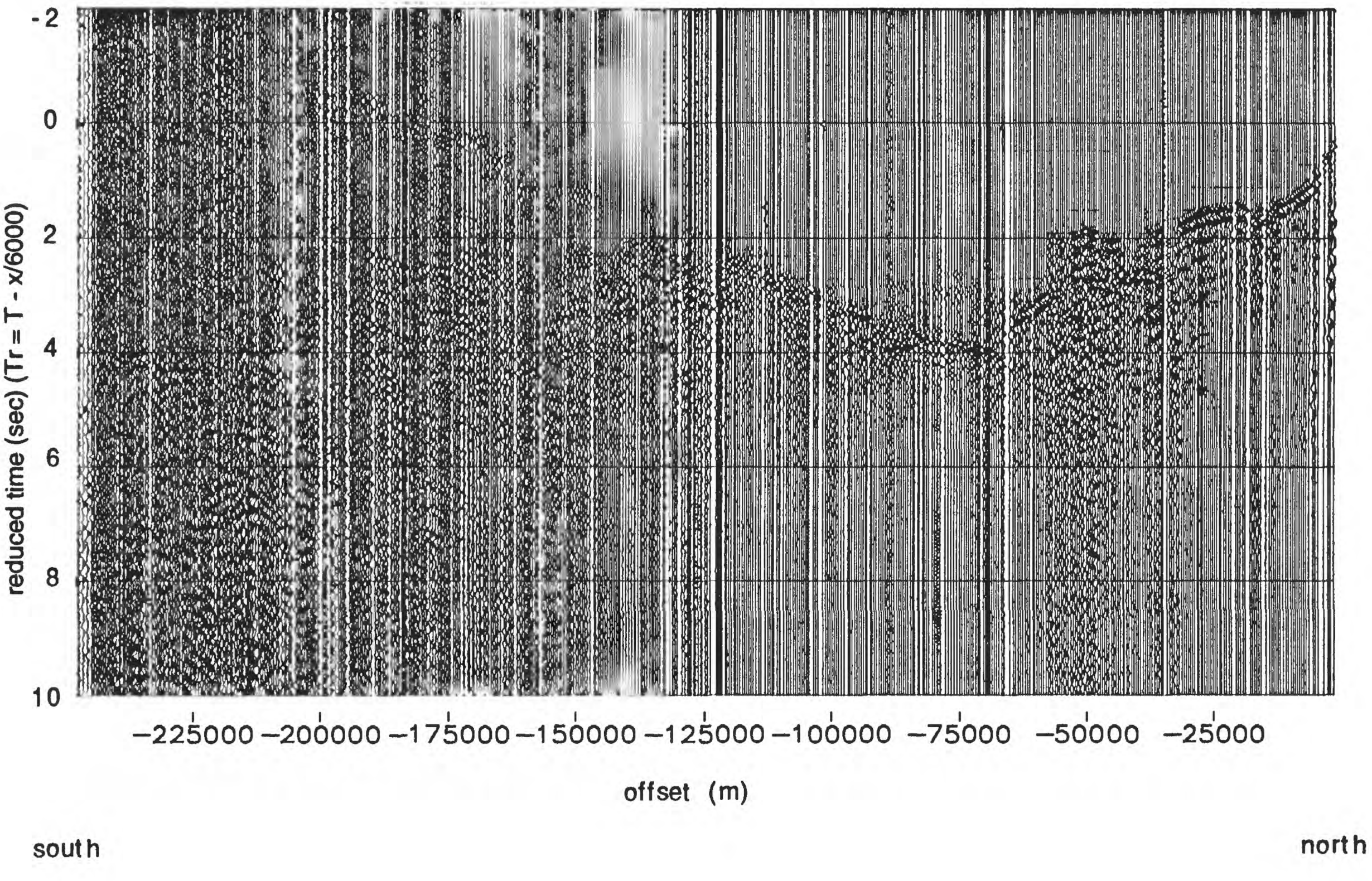


Figure 38: Shot gather for shotpoint 911 (vertical component, reduced at 6 km/s)

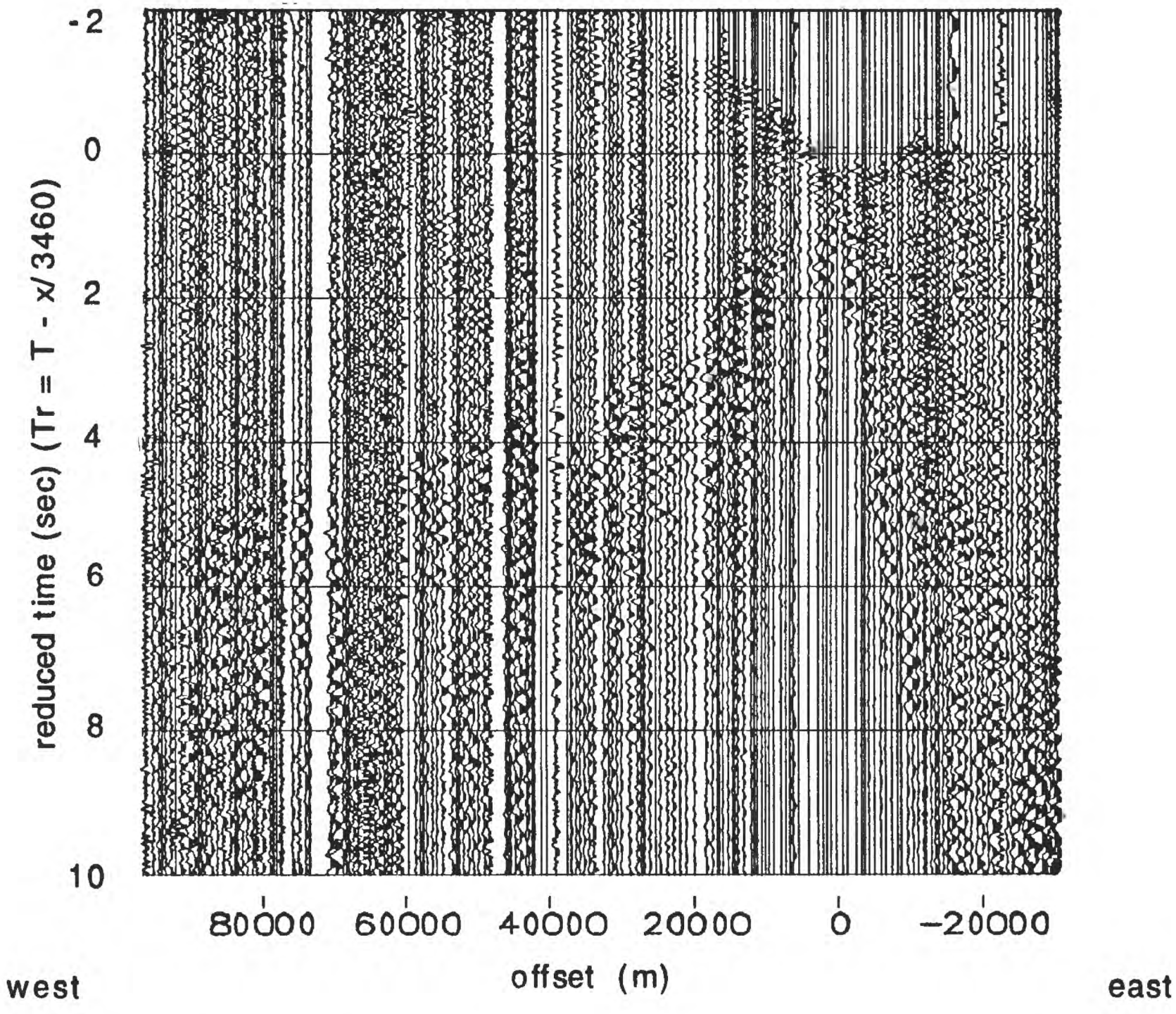


Figure 39: Shot gather for shotpoint 104 (horizontal north-south component, reduced at 3.46 km/s)

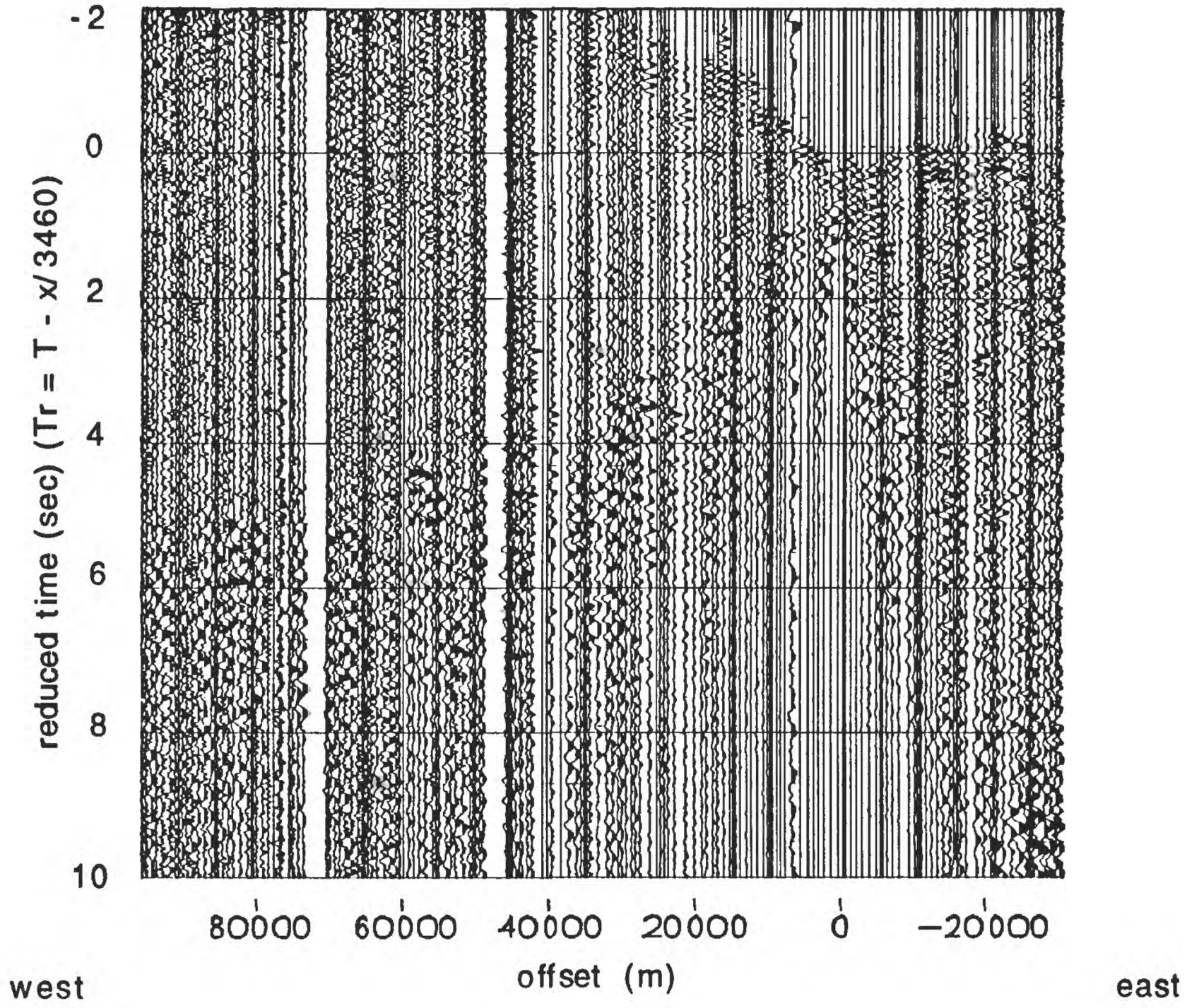


Figure 40: Shot gather for shotpoint 104 (horizontal east-west component, reduced at 3.46 km/s)

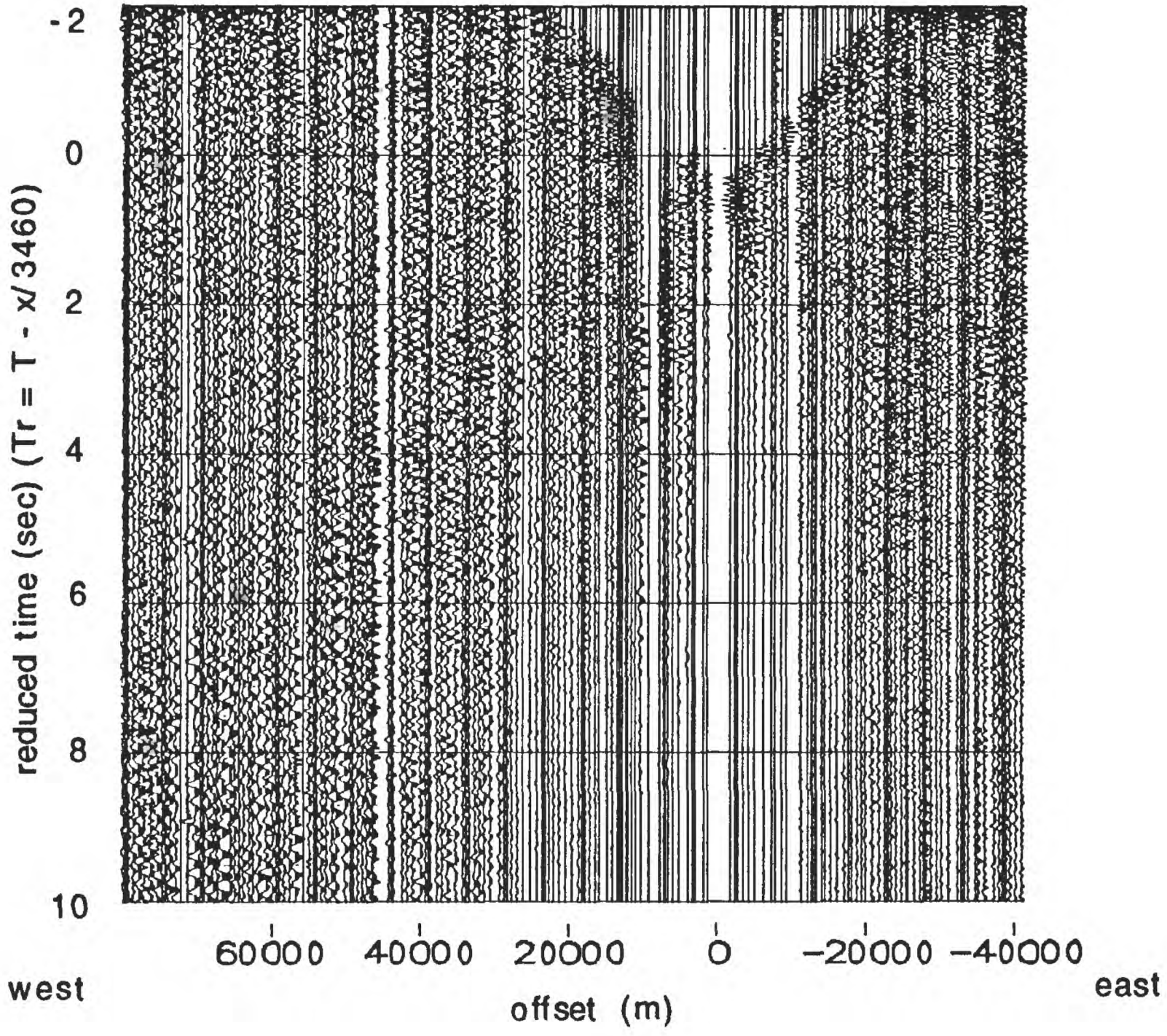


Figure 41: Shot gather for shotpoint 605 (horizontal north-south component, reduced at 3.46 km/s)

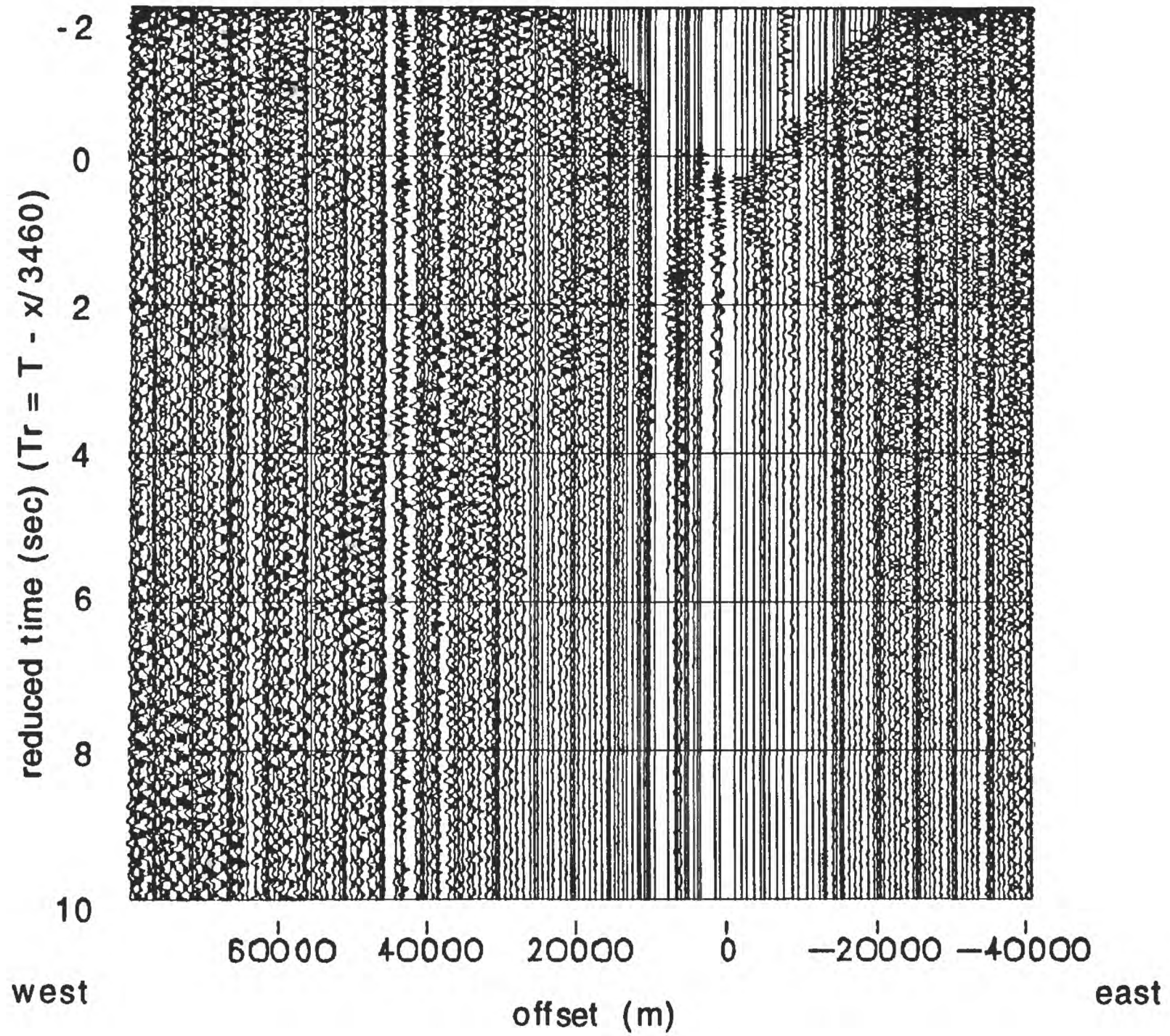


Figure 42: Shot gather for shotpoint 605 (horizontal east-west component, reduced at 3.46 km/s)

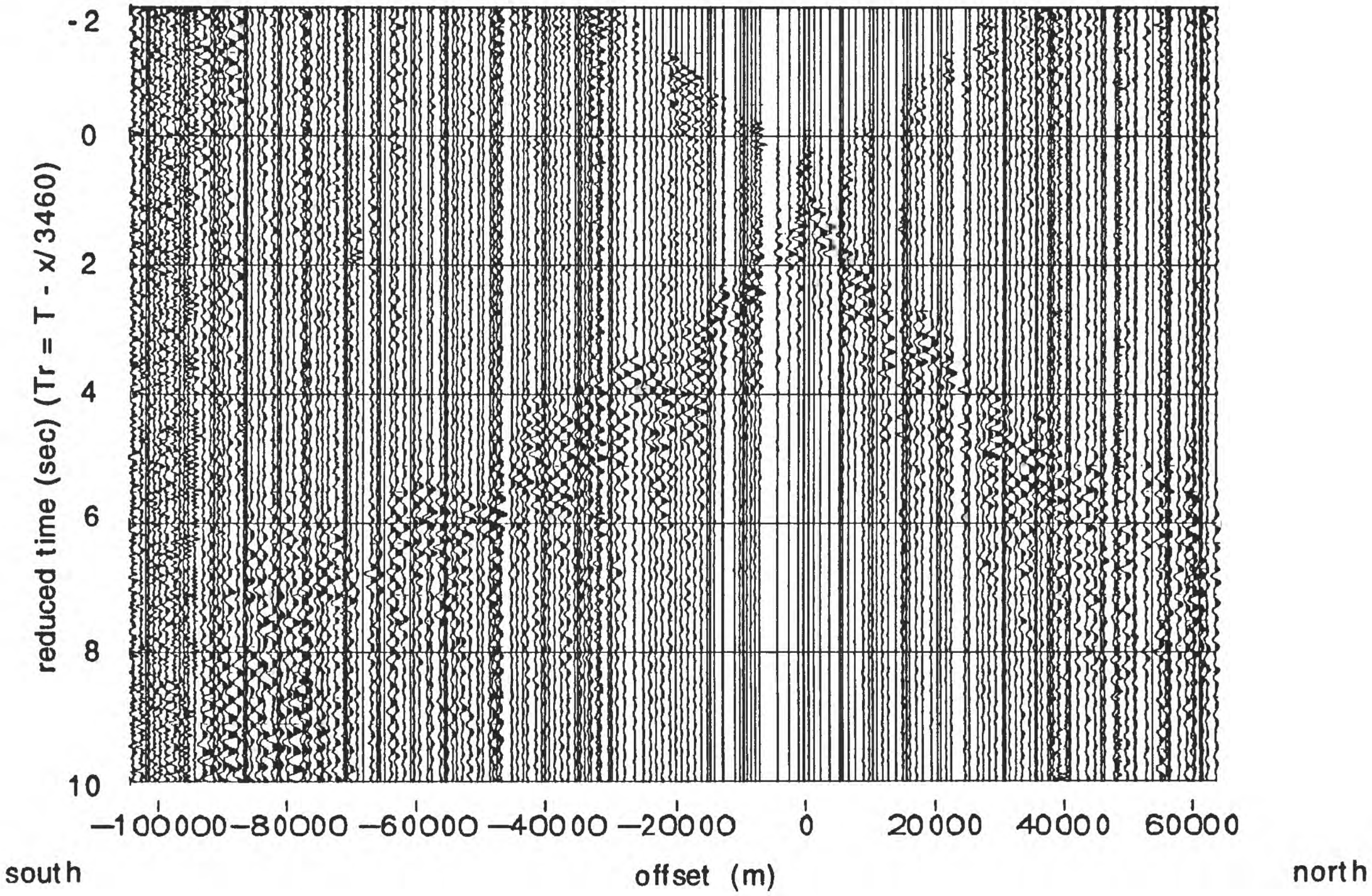


Figure 43: Shot gather for shotpoint 906 (horizontal north-south component, reduced at 3.46 km/s)

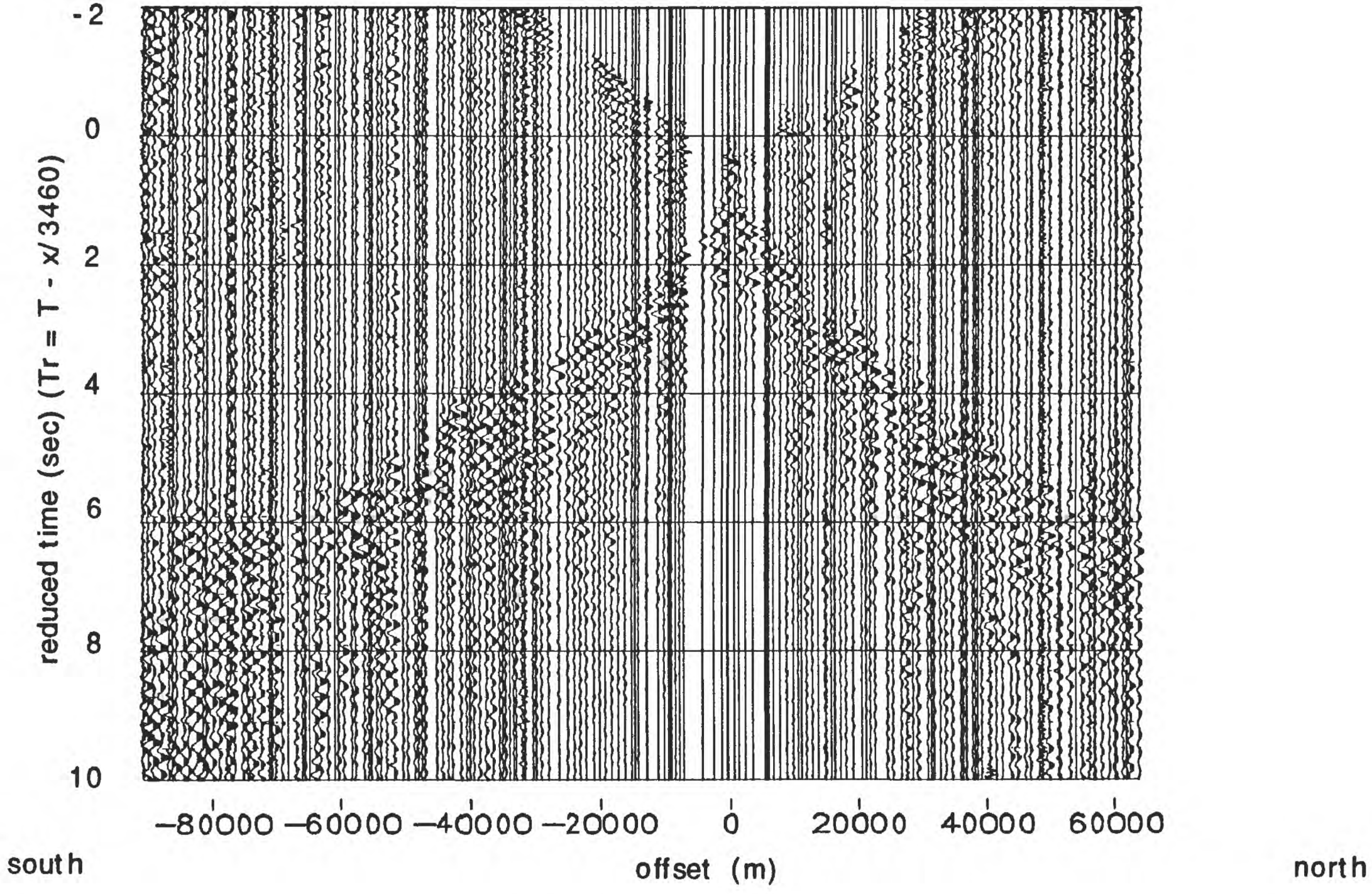


Figure 44: Shot gather for shotpoint 906 (horizontal east-west component, reduced at 3.46 km/s)

8) MULTICHANNEL REFLECTION LINES

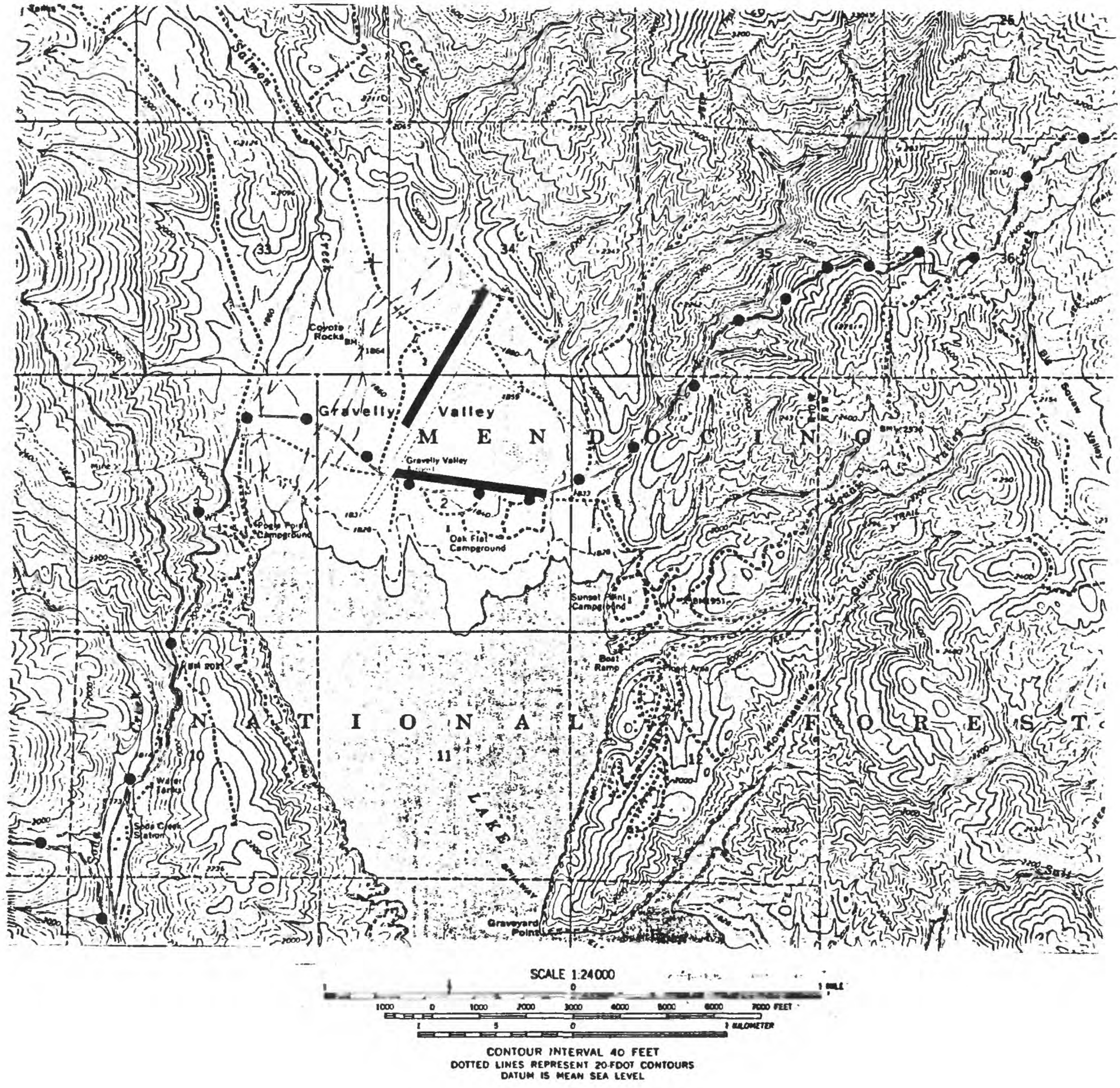
We deployed a multichannel seismograph in the vicinity of Lake Pillsbury, 33 km north of Clear Lake, to augment the main Mendocino wide-aperture experiment (see Figure 45 for location map). Single 8 Hz. geophones were spaced at 33.5 m on both the EW andNS profiles (two deployments) south of the triple junction. The short, 1 km spread recorded a total of 14 shots varying in size from 454-1816 kg. at offsets up to 135 km. The seismograph was triggered by an SGR synchronized to a master clock. Delay times were programmed in to accommodate increased travel-time from longer offset shots. In this configuration the Bison can record a maximum of 20 seconds of data at a 4 ms sample rate.

A summary of the shots recorded is provided in Table 8, followed by plots of shot gathers (Figures 46-59). Delay time, offset from receiver spread (distance), and charge size are indicated for each shot. Each individual shot gather is displayed bandpass filtered from 6 to 15 Hz with amplitudes corrected for spherical divergence, and traveltime corrected for delay time. The 30 traces displayed for shots 101-108 are coincident with receivers 1381-1379 (wide-aperture Profile 1), and fall between receivers 9073 and 9074 on wide-aperture Profile 9 (shots 902, 903, 904, 905, and 907). Note that the SGR used for triggering on the second deployment (shots 902, 903, 904, 905 and 907) malfunctioned so that the Bison was triggered manually. Arrival times need to be calibrated with REFTEK receivers.

Strong, coherent, pre-critical, reflections from the lower crust or Moho are visible on several shot gathers. Additional lower amplitude reflections are observed both above and below this prominent reflection. A high degree of lateral variability exists within individual shot gathers as well as between adjacent gathers, suggesting a complicated, heterogeneous crustal structure. The 30 traces displayed in each gather are equivalent to 3 traces on the coincident wide-aperture profiles. Linear moveout velocity of the first arrival on the gathers ranges from 3.9 to 4.5 km/s.

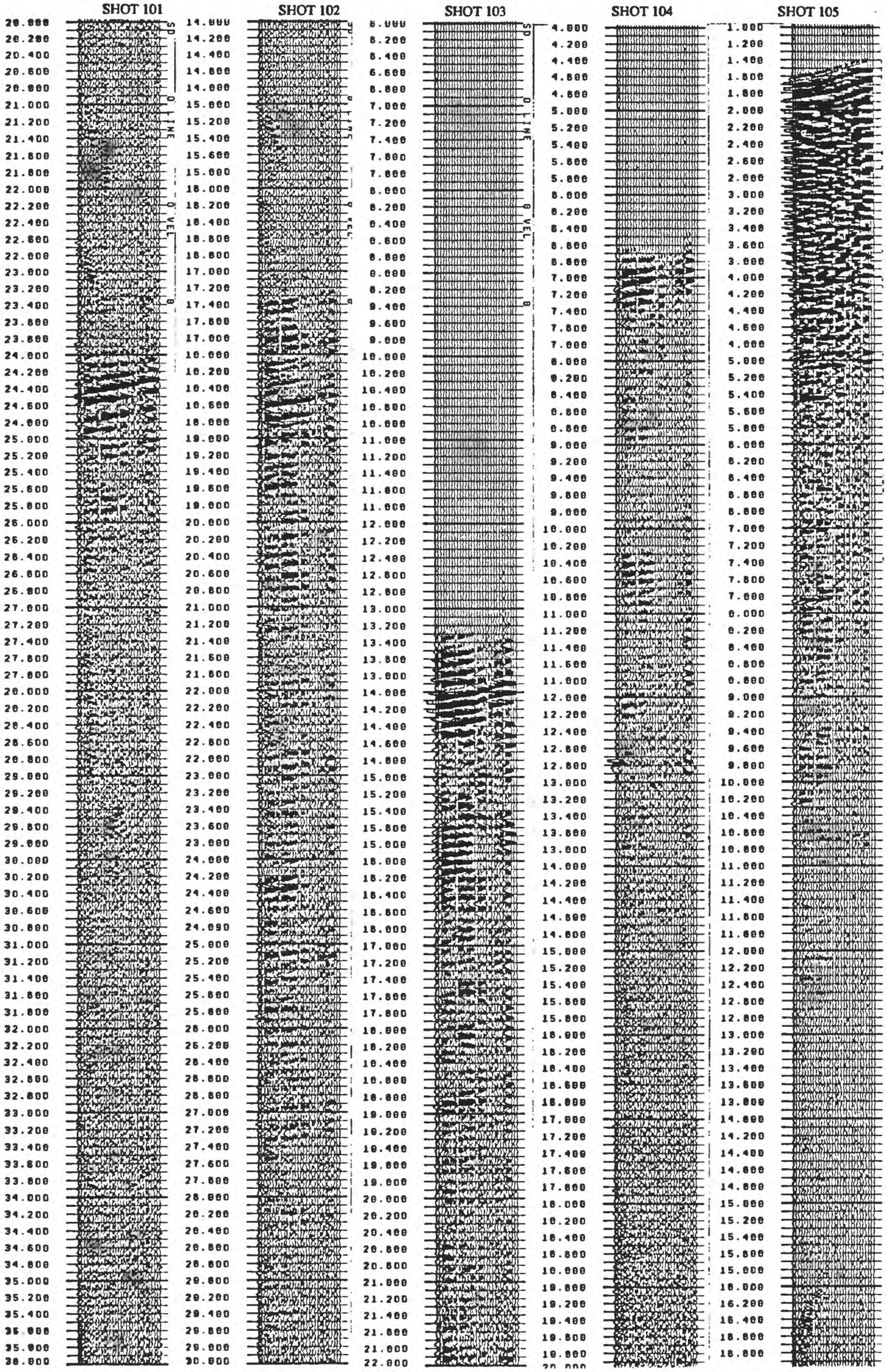
A high degree of variability in crustal reflectivity exits both between and within shot gathers. Particularly strong pre-critical reflections are observed at ~ 9 sec. on shot 106 and at ~ 10 sec. on shot 902. The reflection comes from an impedance contrast at approximately 25 km depth assuming an average crustal velocity of 5.5 km/s. Shots 106 and 902 are at offsets of 18.3 and 11.7 km respectively with midpoints (reflection region) located just southwest of Lake Pillsbury. A similar, although slightly weaker deep reflection event is observed on shot 903 (midpoint north of Lake Pillsbury). Additional reflection events are visible on many of the shots.

Amplitude decay analyses and amplitude spectra for traces 4, 20, 25, and 30 within shot 106 provide an indication of the variability within a single gather (see Figures 60-63). Both maximum amplitude (thick line) and RMS amplitude (thin line) are plotted. Amplitude spectrum for each trace (500 ms overlapping windows) shows frequency decay with depth.

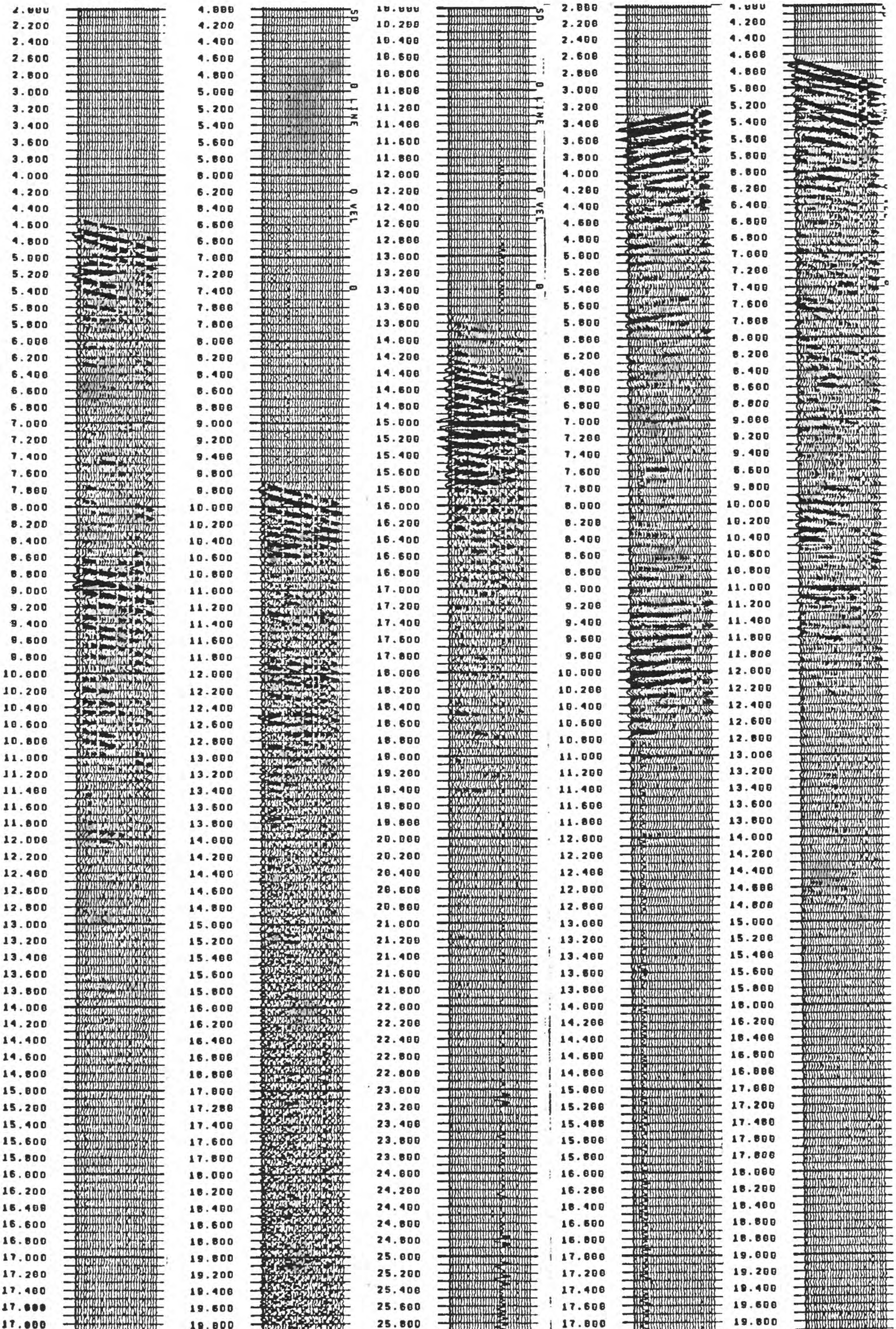


solid lines = high-resolution spread
circles = REFTEK or SGR location

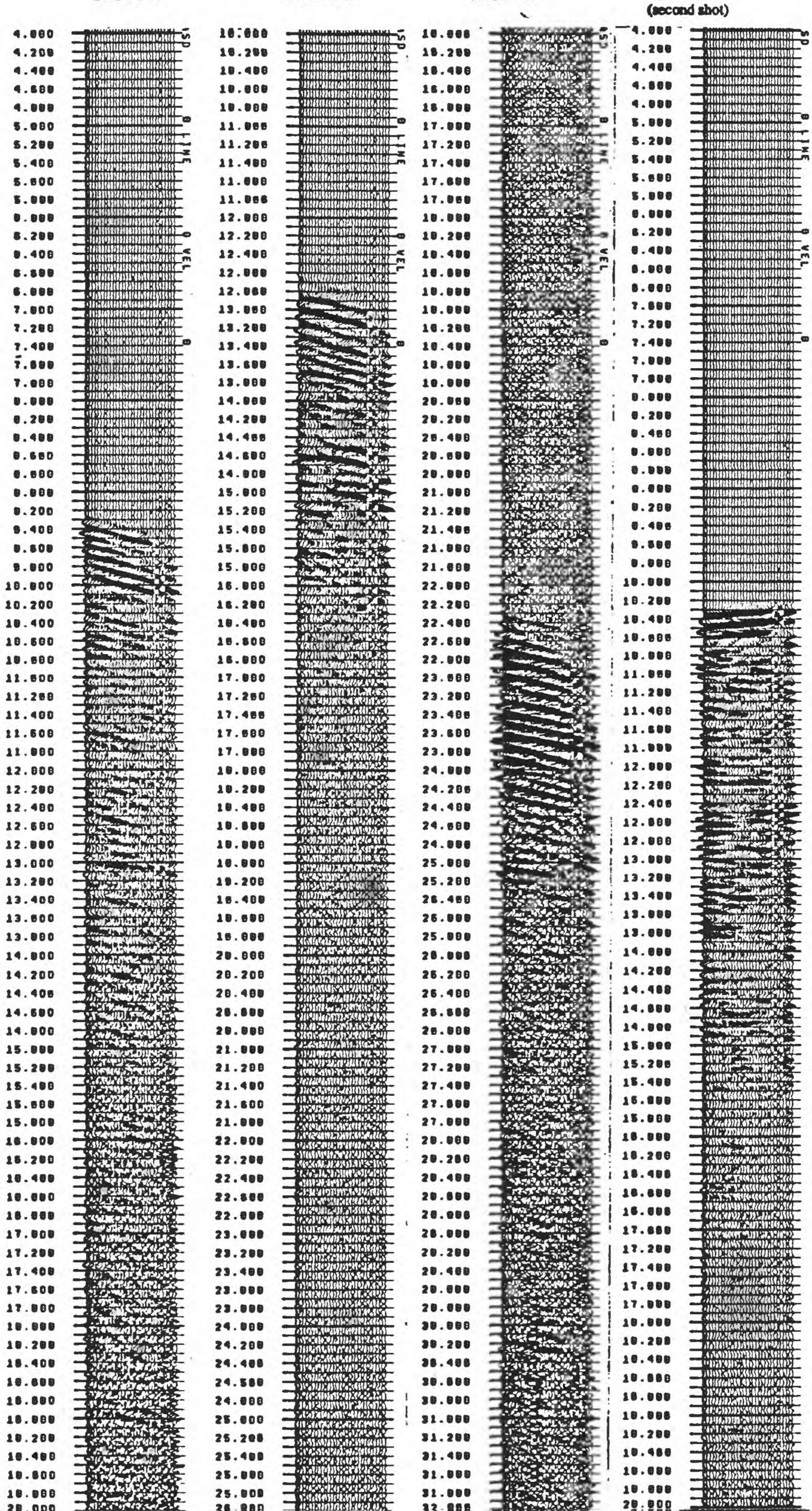
Figure 45: Map showing the location of the Bison reflection spread



Figures 46-50: Shotgathers for shotpoints 102-105 recorded by the Bison reflection array



page 57 Figures 51-55: Shotgathers for shotpoints 106-108 and 902-903 recorded by the Bison reflection array



page 58 Figures 56-59: Shotgathers for shotpoints 904, 905, 907 and 107 recorded by the Bison reflection array

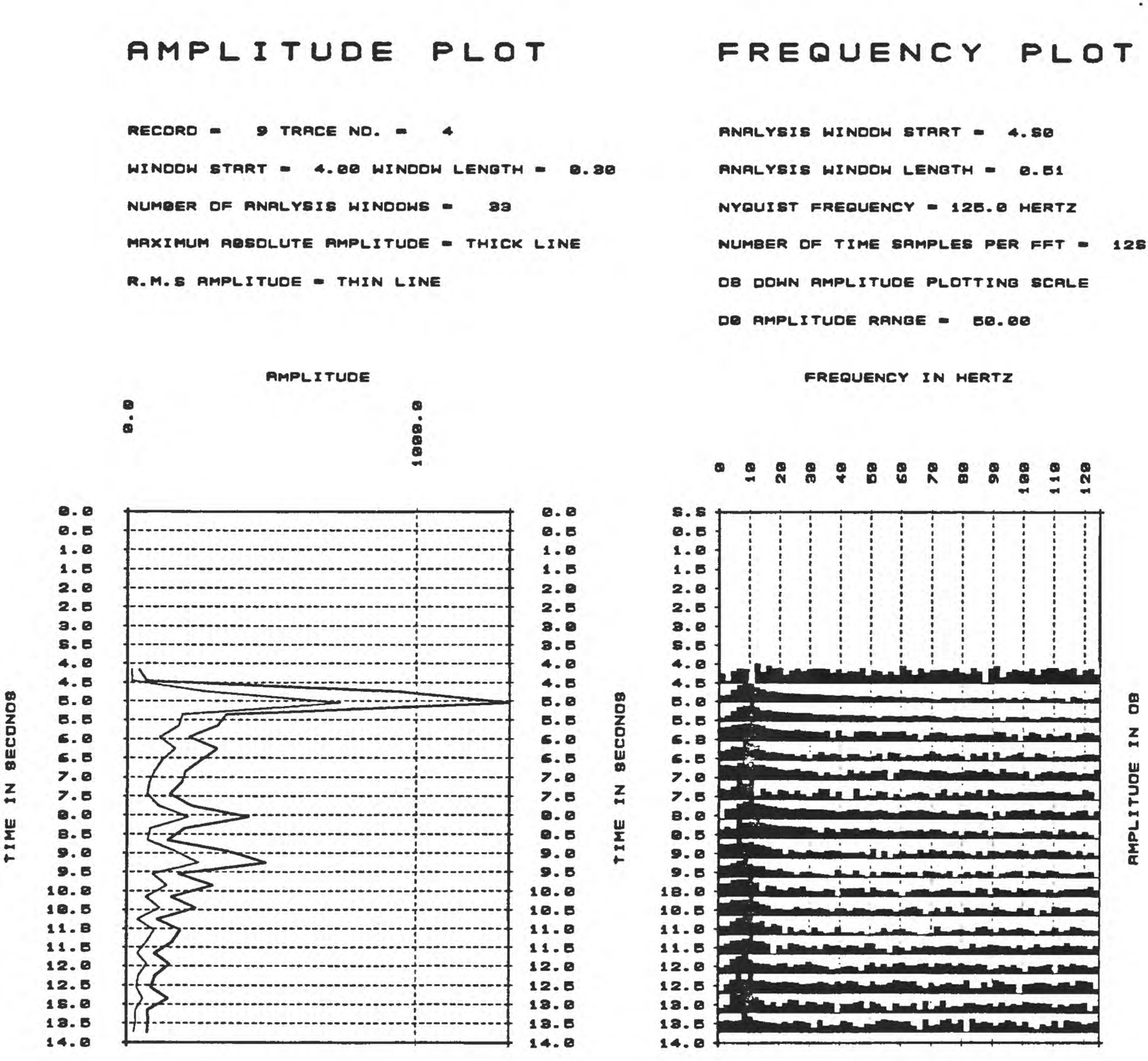


Figure 60: Amplitude and frequency spectra for trace 4 from shot 106

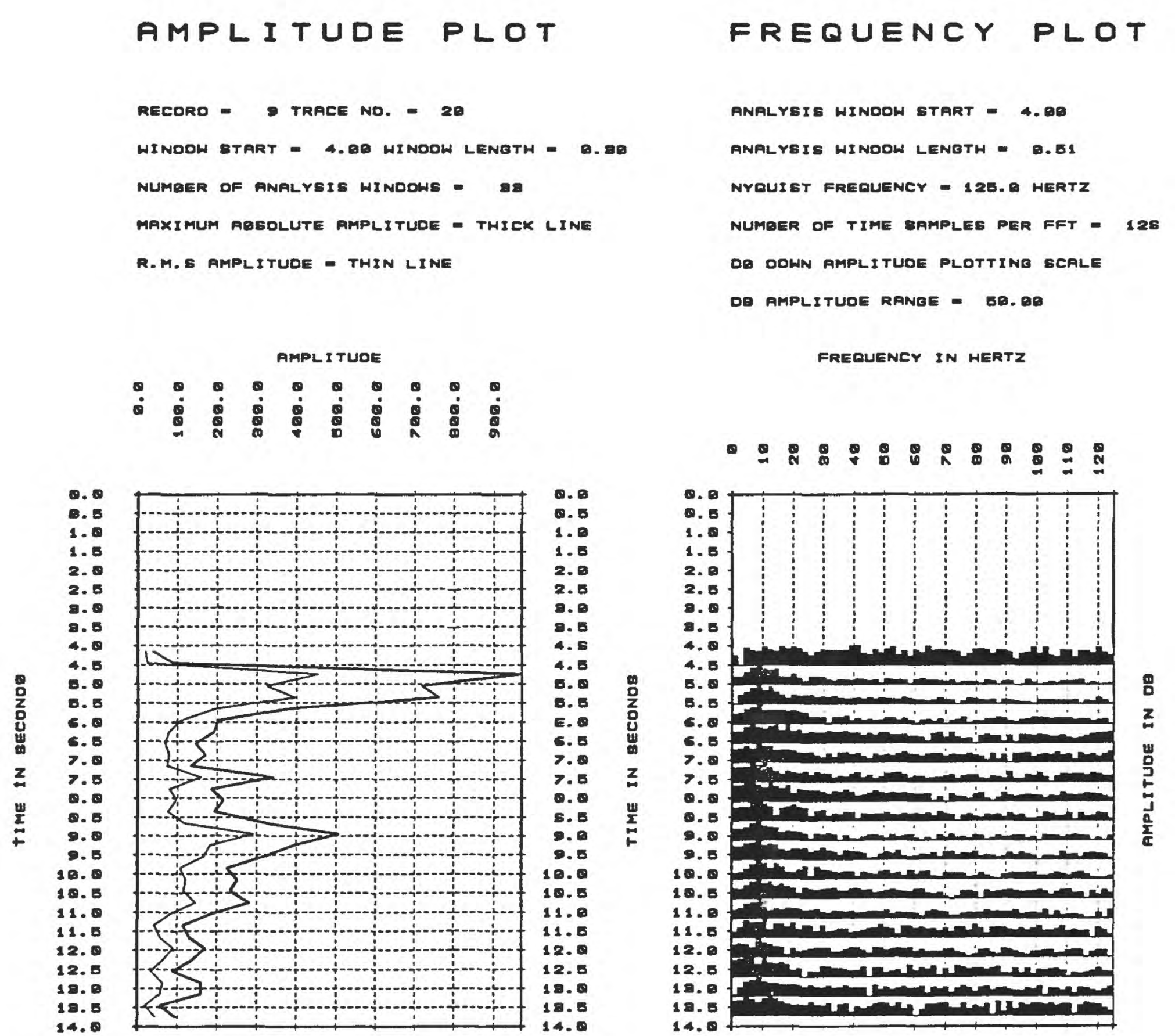


Figure 61: Amplitude and frequency spectra for trace 20 from shot 106

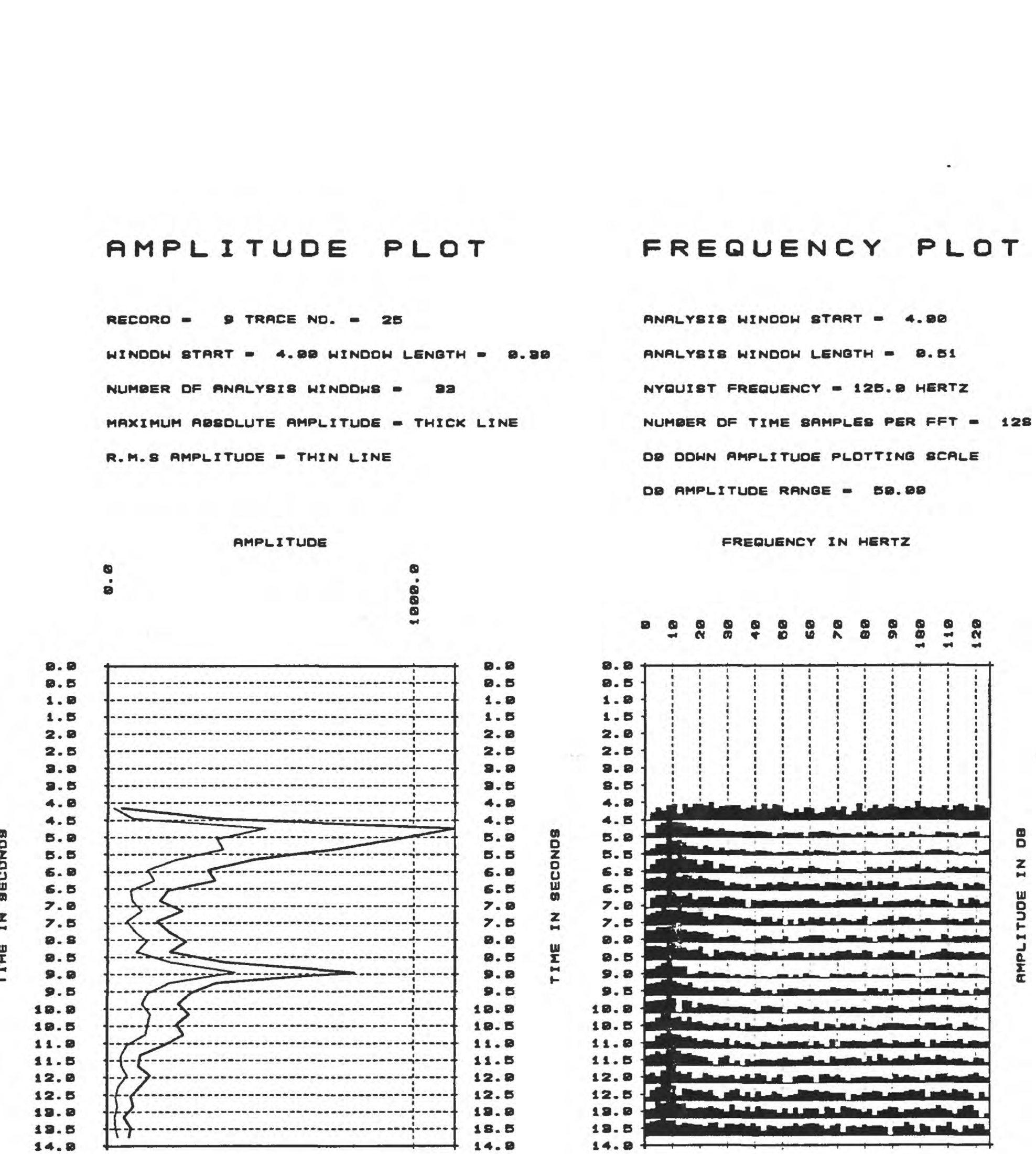


Figure 62: Amplitude and frequency spectra for trace 25 from shot 106

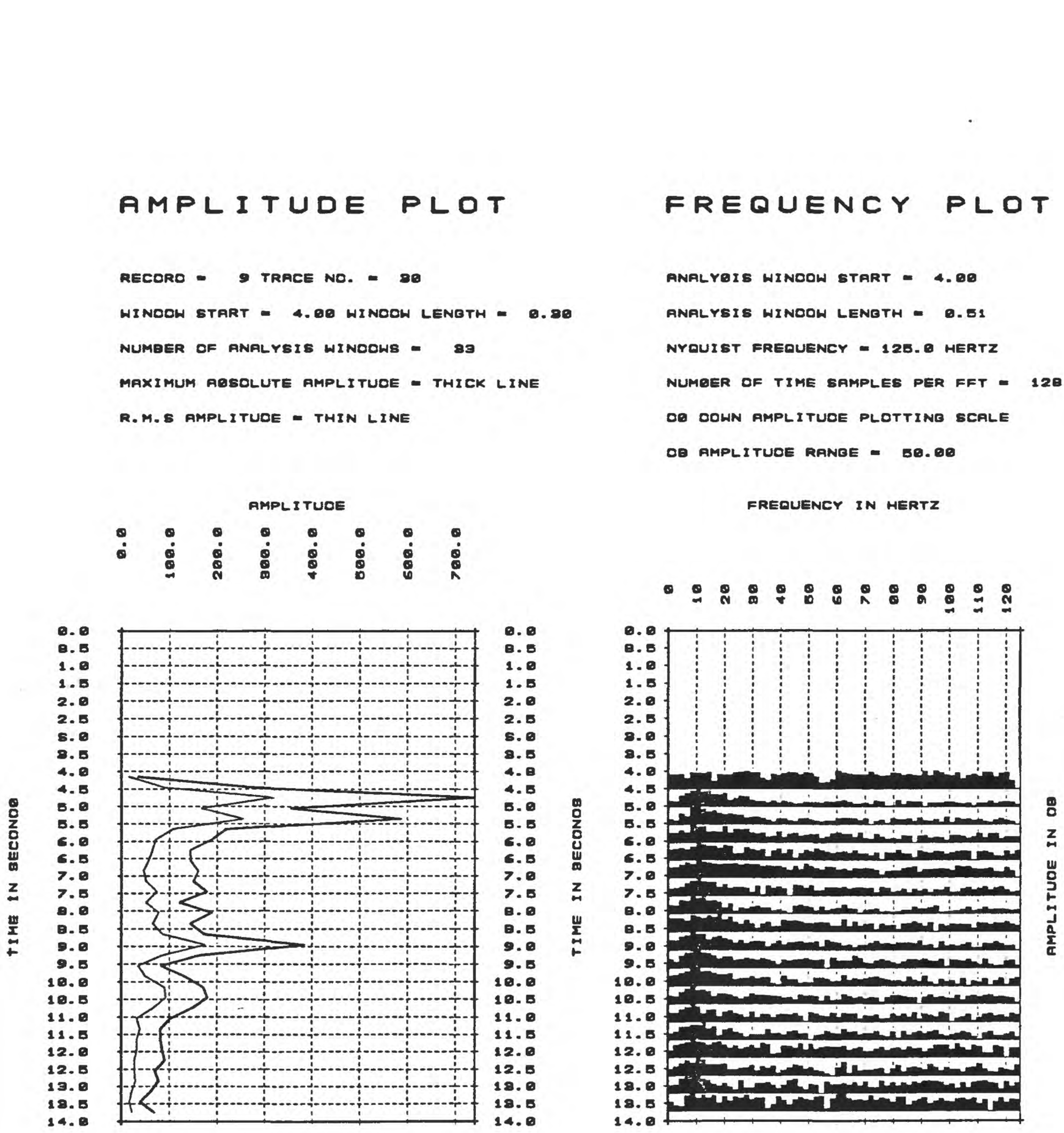


Figure 63:Amplitude and frequency spectra for trace 30 from shot 106

ACKNOWLEDGMENTS

We would like to thank the following people and organizations for allowing us to locate shotpoints and/or stations on their land; Redwood National Park, Simpson Timber Company, Anderson Solid Waste Inc., Louisiana Pacific Corporation, Six Rivers National Forest, Stover Ranch, Sierra Pacific Industries, Jim and Bob Bremner, William Feeney, Mendocino National Forest, Georgia Pacific Corporation, Hoff Trust, Bureau of Land Management, Lee Bucknell, Gilbert Martin, Circle X Ranch, National Park Service, Soper-Wheeler Company, Michael Ward.

We would also like to thank Humboldt State University and Blosser Lane Elementary School, Willits for allowing us to use their establishments as base camps.

We also acknowledge the work done in the field by Ed Criley, Dave Croker, Gray Jenson, Walter Mooney, Dave Reneau, Mike Schoemann, Brian Laird and all the deployment crews consisting of representatives from Stanford University, Oregon State University, Rice University, Lehigh University, Dublin Institute for Advanced Studies and Cal. State Hayward.

REFERENCES

Dickinson, W. R., & W. S. Snyder, Geometry of subducted slabs related to San Andreas Transform, *J. Geol.*, 87, 609-627, 1979.

Jachens, R. C., & A. Griscom, Three-dimensional geometry of the Gorda Plate beneath Northern California, *J. Geophys. Res.*, 88, 9375-9392, 1983.

Luetgert, J. , S. Hughs, J. Cipar, S. Mangino, D. Forsyth and I. Asudeh, Data report for O-NYNEX the 1988 Grenville-Appalachian seismic refraction experiment in Ontario, New York and New England, *U. S. Geological Survey Open-file Report 90-426,21 pp* 1990.

Murphy, J. M., R. D. Catchings, W. M. Kohler, G. S. Fuis and D. Eberhart-Phillips, Data report for 1991 active-source seismic profiles in the San Francisco Bay area, California, *U. S. Geological Survey Open-file Report 92-570*, 45 pp, 1992.

Smith, S. W., J. S. Knapp & R. C. McPherson, Seismicity of the Gorda Plate, structure of the continental margin, and an eastward jump of the Mendocino Triple Junction, *J. Geophys. Res.*, 98, 8153-8171, 1993.

TABLES

TABLE 1

Shotpoint locations (latitude and longitude), shot sizes (kg) and hole depths (m) for the shotpoints from Lines 1, 6 and 9. If the location was determined from GPS data it is marked with a G and if it was digitised from 1:24000 maps it is marked with a D. Shotpoint 107 was recorded by receivers on both lines 1 and 9.

Line number	Shotpoint number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Shot size (kg)	Hole depth* (m)
1	101	39:42:05.65	-121:25:40.22	854	G	1816	43 & 42
1	102	39:38:08.45	-121:57:31.75	35	D	908	46
1	103	39:34:04.40	-122:18:00.04	68	G	454	30
1	104	39:33:48.71	-122:37:42.56	752	G	908	45
1	105	39:28:26.04	-122:53:39.73	1108	D	454	34
1	106	39:26:25.80	-123:10:40.08	829	D	908	46
1	107	39:25:56.50	-123:29:31.16	128	G	454	34
1	108	39:28:11.39	-123:44:52.01	149	D	1816	47 & 51
6	601	40:19:52.10	-121:43:45.30	1134	G	1816	44 & 48
6	602	40:25:19.42	-122:22:04.87	219	G	908	44
6	603	40:27:24.19	-122:34:09.66	242	D	454	30
6	604	40:36:19.62	-122:52:09.41	652	D	908	44
6	605	40:35:08.48	-123:05:42.29	855	D	454	30
6	606	40:36:55.91	-123:29:12.16	516	G	908	44
6	607	40:39:42.16	-123:44:19.39	669	D	454	30
6	608	40:45:32.00	-124:01:03.58	356	G	1816	45 & 46
9	107	39:25:56.50	-123:29:31.16	128	G	454	34
9	901	39:09:04.82	-122:51:05.11	457	D	2270	54 & 51
9	902	39:21:19.33	-122:59:44.52	1005	G	454	34
9	903	39:36:53.53	-122:58:15.20	1932	D	1816	46 & 44
9	904	39:46:57.25	-123:05:30.70	1164	D	454	30
9	905	39:56:19.21	-123:18:41.47	856	G	1362	60
9	906	40:11:00.20	-123:18:20.84	1133	G	454	32
9	907	40:24:51.80	-123:29:28.54	1147	G	1362	57
9	908	40:37:43.90	-123:38:50.53	1322	G	454	33
9	909	40:50:02.54	-123:42:28.22	1463	D	1816	43 & 45
9	910	41:00:59.00	-123:51:51.48	213	D	454	31
9	911	41:13:33.56	-123:56:40.92	759	D	2270	52 & 52

* Shots over 1200 kg were distributed between two drill holes

TABLE 2
Station locations (latitude and longitude), elevations (m) and instrument type (R = REFTEK, S = SGR, E = PRS-1, E3 = PRS-4 and B = blank (no instrument was put at this location)) for the stations on Line 1 Locations determined from GPS data are marked G, and from digitised data, D.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1001	39:42:09.22	-121:25:46.56	852	G	E
1002	39:42:13.86	-121:26:04.56	811	G	B
1003	39:42:17.96	-121:26:17.70	797	G	E
1004	39:42:11.09	-121:26:31.60	786	G	B
1005	39:41:57.08	-121:26:43.98	771	G	E
1006	39:41:48.52	-121:27:01.37	747	G	B
1007	39:41:50.86	-121:27:13.86	726	G	E
1008	39:41:54.60	-121:27:27.61	715	G	B
1009	39:42:05.33	-121:27:46.13	687	G	E
1010	39:42:12.28	-121:28:02.60	662	G	B
1011	39:42:13.00	-121:26:09.48	652	G	E
1012	39:42:27.58	-121:28:38.82	640	G	B
1013	39:42:39.13	-121:28:47.28	658	G	E
1014	39:43:17.00	-121:29:12.55	643	G	B
1015	39:43:24.13	-121:29:26.45	638	G	E
1016	39:43:27.68	-121:29:38.69	604	G	B
1017	39:43:31.87	-121:29:55.97	612	G	E
1018	39:43:30.65	-121:30:12.64	639	G	E
1019	39:43:26.00	-121:30:26.78	640	G	E
1020	39:43:20.78	-121:30:38.16	635	G	E
1021	39:43:12.29	-121:30:53.60	620	G	E
1022	39:43:05.02	-121:31:04.76	618	G	E
1023	39:42:44.89	-121:31:18.05	603	G	E
1024	39:42:37.82	-121:31:31.19	605	G	E
1025	39:42:05.54	-121:31:42.74	522	G	E
1026	39:41:39.16	-121:31:55.49	494	D	E
1027	39:41:07.87	-121:32:16.91	424	G	E
1028	39:40:54.19	-121:32:14.75	369	G	E
1029	39:39:20.59	-121:32:13.27	292	G	E
1030	39:39:15.23	-121:32:29.69	298	G	E
1031	39:39:16.27	-121:32:42.83	304	G	E
1032	39:39:13.25	-121:32:55.64	288	G	E
1033	39:39:09.65	-121:33:07.27	263	G	E
1034	39:39:05.98	-121:33:17.06	252	G	E
1035	39:39:07.52	-121:33:38.64	219	G	E
1036	39:39:18.83	-121:33:57.42	185	G	E
1037	39:39:24.41	-121:34:16.18	164	G	E
1038	39:39:25.63	-121:34:25.50	165	G	E
1039	39:39:20.70	-121:34:44.83	139	G	E
1040	39:39:16.42	-121:34:57.83	138	G	E
1041	39:39:09.38	-121:35:13.13	132	G	E
1042	39:39:11.20	-121:35:23.46	132	G	E
1043	39:39:08.32	-121:35:42.32	142	G	E
1044	39:39:03.10	-121:35:56.94	152	G	E
1045	39:38:55.07	-121:36:12.64	141	G	E
1046	39:38:50.71	-121:38:25.45	127	G	E
1047	39:36:49.49	-121:36:46.22	114	G	E
1048	39:38:49.49	-121:36:59.65	112	G	E
1049	39:38:50.80	-121:37:13.15	116	G	E
1050	39:38:51.00	-121:37:28.74	100	G	E
1051	39:38:51.04	-121:37:40.15	108	G	E
1052	39:38:51.72	-121:37:50.99	102	D	E
1053	39:38:50.03	-121:38:07.88	95	G	E
1054	39:38:40.38	-121:36:18.85	68		E
1055	39:38:31.67	-121:38:32.32	87	G	E
1056	39:38:31.68	-121:38:47.11	64	G	E

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1057	39:38:30.52	-121:39:00.00	80	G	E
1058	39:38:28.72	-121:39:15.55	77	G	E
1059	39:38:27.13	-121:39:29.99	77	G	E
1060	39:38:25.08	-121:39:42.44	71	G	E
1061	39:38:21.91	-121:39:57.92	70	G	E
1062	39:38:22.20	-121:40:13.94	71	G	E
1063	39:38:23.08	-121:40:29.03	67	G	E
1064	39:38:20.15	-121:40:46.45	66	G	E
1065	39:38:20.47	-121:41:01.03	68	G	E
1066	39:38:21.70	-121:41:15.58	57	G	E
1067	39:38:21.73	-121:41:28.36	53	G	E
1068	39:38:21.52	-121:41:42.32	59	G	E
1069	39:38:21.34	-121:41:56.44	57	G	E
1070	39:38:21.26	-121:42:08.24	55	G	E
1071	39:38:23.75	-121:42:22.93	55	G	E
1072	39:38:32.32	-121:42:40.36	53	G	E
1073	39:38:32.75	-121:43:08.26	49	G	E
1074	39:38:40.68	-121:43:21.22	50	G	E
1075	39:38:46.68	-121:43:36.73	46	G	E
1076	39:38:49.09	-121:43:49.22	48	G	E
1077	39:38:46.73	-121:44:02.69	47	G	E
1078	39:38:48.26	-121:44:18.08	44	G	E
1079	39:38:48.23	-121:44:33.58	48	G	E
1080	39:38:47.80	-121:44:46.93	48	G	E
1081	39:38:47.58	-121:45:02.12	53	G	E
1082	39:38:47.72	-121:45:19.15	44	G	E
1083	39:38:47.18	-121:45:33.34	40	G	E
1084	39:38:46.86	-121:45:45.94	44	G	E
1085	39:38:46.72	-121:46:01.81	46	G	E
1086	39:38:46.46	-121:46:15.74	45	G	E
1087	39:38:45.82	-121:46:31.12	40	G	E
1088	39:38:45.85	-121:46:45.91	47	G	E
1089	39:38:45.74	-121:47:01.90	46	G	E
1090	39:38:45.10	-121:47:14.64	43	G	E
1091	39:38:47.15	-121:47:30.52	49	G	E
1092	39:38:46.61	-121:47:44.86	47	G	E
1093	39:38:49.31	-121:46:00.97	48	D	E
1094	39:38:45.38	-121:48:14.11	39	G	E
1095	39:39:10.37	-121:46:35.96	35	G	E
1096	39:39:10.30	-121:46:51.95	48	G	E
1097	39:39:10.19	-121:49:05.81	45	G	E
1098	39:39:10.37	-121:49:19.31	44	G	E
1099	39:39:10.30	-121:49:37.06	42	G	E
1100	39:39:10.44	-121:49:49.87	44	G	E
1101	39:39:10.55	-121:50:04.20	47	G	E
1102	39:39:10.82	-121:50:17.92	48	G	E
1103	39:39:10.82	-121:50:33.43	45	G	E
1104	39:39:10.51	-121:50:47.62	39	G	E
1105	39:39:10.48	-121:51:01.76	39	G	E
1106	39:39:10.82	-121:51:18.40	42	G	E
1107	39:39:10.91	-121:51:33.19	40	G	E
1108	39:39:10.82	-121:51:45.32	43	D	E
1109	39:39:03.74	-121:52:01.92	41	G	E
1110	39:38:55.36	-121:52:16.00	41	G	E
1111	39:38:49.70	-121:52:27.05	39	G	E
1112	39:38:41.14	-121:52:39.54	41	G	E

Table 2 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1113	39:38:34.08	-121:52:51.10	30	G	E
1114	39:38:20.11	-121:53:06.82	43	G	E
1115	39:38:18.02	-121:53:20.33	37	G	E
1116	39:38:18.31	-121:53:32.89	34	G	E
1117	39:38:18.20	-121:53:46.64	38	G	E
1118	39:38:17.95	-121:54:05.26	37	G	E
1119	39:38:15.97	-121:54:14.94	30	G	E
1120	39:38:13.09	-121:54:26.35	33	G	E
1121	39:38:10.32	-121:54:38.34	24	G	E
1122	39:38:05.21	-121:54:57.28	22	G	E
1123	39:38:00.92	-121:55:13.08	27	G	E
1124	39:37:56.50	-121:55:30.61	33	G	E
1125	39:37:53.72	-121:55:41.38	30	G	E
1126	39:37:48.43	-121:56:01.18	30	G	E
1127	39:37:44.72	-121:56:15.72	32	G	E
1128	39:37:41.16	-121:56:29.90	30	G	E
1129	39:37:37.09	-121:56:45.35	29	G	E
1130	39:37:34.07	-121:56:57.30	24	G	E
1131	39:37:30.32	-121:57:11.02	20	G	E
1132	39:37:26.83	-121:57:24.41	30	G	E
1133	39:37:23.34	-121:57:37.98	29	G	E
1134	39:37:19.52	-121:57:51.98	29	G	E
1135	39:37:16.50	-121:56:05.12	28	G	E
1136	39:37:12.97	-121:56:17.72	34	G	E
1137	39:37:10.27	-121:56:31.04	26	G	E
1138	39:37:24.78	-121:58:53.87	33	G	E
1139	39:37:39.56	-121:59:00.46	25	G	E
1140	39:37:45.44	-121:59:27.78	29	D	E
1141	39:37:42.13	-121:59:33.54	32	D	E
1142	39:37:49.94	-121:59:54.06	34	D	E
1143	39:37:49.94	-122:00:15.62	36	D	E
1144	39:37:50.23	-122:00:30.31	37	D	E
1145	39:37:50.59	-122:00:44.60	37	D	E
1146	39:37:50.74	-122:00:59.90	38	D	E
1147	39:37:50.64	-122:01:14.34	38	D	E
1148	39:37:51.10	-122:01:29.88	39	D	E
1149	39:38:59.18	-122:01:37.20	37	D	E
1150	39:38:59.18	-122:01:51.38	37	D	E
1151	39:38:59.04	-122:02:08.45	37	D	E
1152	39:36:58.90	-122:02:21.73	38	D	E
1153	39:38:58.88	-122:02:37.25	38	D	E
1154	39:36:18.99	-122:02:44.20	37	D	E
1155	39:38:08.52	-122:02:56.38	38	D	E
1156	39:38:08.41	-122:03:13.90	37	D	E
1157	39:38:08.48	-122:03:29.74	37	D	E
1156	39:38:06.37	-122:03:45.18	37	D	E
1159	39:35:26.05	-122:03:52.63	38	D	E
1160	39:34:58.12	-122:04:00.55	35	D	E
1161	39:34:56.15	-122:04:16.72	35	D	E
1162	39:34:56.04	-122:04:32.64	35	D	E
1163	39:34:56.26	-122:04:40.94	30	G	E
1164	39:34:56.15	-122:04:57.47	37	G	E
1165	39:34:56.26	-122:05:14.68	33	G	E
1166	39:34:56.44	-122:05:29.00	28	G	E
1167	39:34:56.40	-122:05:44.59	33	G	E
1168	39:34:56.86	-122:05:56.74	38	G	E

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevatio (m)	GPS or digitised	Instrument type
1169	39:34:55.49	-122:06:14.51	33	G	E
1170	39:34:55.70	-122:06:32.65	29	G	E
1171	39:34:55.88	-122:06:46.88	37	G	E
1172	39:34:56.03	-122:07:00.26	37	G	E
1173	39:34:56.03	-122:07:15.31	38	G	E
1174	39:34:56.03	-122:07:29.50	34	G	E
1175	39:34:56.14	-122:07:44.87	39	G	E
1176	39:34:56.71	-122:08:01.88	41	D	E
1177	39:34:56.39	-122:06:14.24	43	G	E
1178	39:34:56.42	-122:08:29.90	45	G	E
1179	39:34:56.32	-122:08:43.01	44	G	E
1190	39:34:56.26	-122:06:53.99	44	G	E
1181	39:34:56.42	-122:09:08.68	47	G	E
1182	39:34:56.50	-122:09:23.15	48	G	E
1183	39:34:56.50	-122:09:41.38	44	G	E
1184	39:34:56.50	-122:09:53.10	43	G	E
1185	39:34:56.46	-122:10:06.74	45	G	E
1186	39:34:56.57	-122:10:20.78	41	G	E
1187	39:34:56.39	-122:10:34.79	37	G	E
1188	39:34:56.39	-122:10:50.12	41	G	E
1189	39:35:00.56	-122:11:10.21	47	G	E
1190	39:35:02.04	-122:11:26.59	28	G	E
1191	39:34:56.75	-122:11:40.92	45	G	E
1192	39:34:56.75	-122:11:54.64	33	G	E
1193	39:34:56.88	-122:12:10.76	32	G	E
1194	39:34:56.57	-122:12:24.19	36	G	E
1195	39:34:56.21	-122:12:42.05	30	G	E
1196	39:34:56.64	-122:12:57.71	38	G	E
1197	39:34:56.50	-122:13:10.45	37	G	E
1198	39:34:56.60	-122:13:18.05	48	G	E
1199	39:34:56.64	-122:13:32.88	51	G	E
1200	39:34:56.68	-122:13:48.04	49	G	E
1201	39:34:56.78	-122:14:03.16	43	G	E
1202	39:34:56.50	-122:14:23.08	49	G	E
1203	39:34:57.11	-122:14:42.54	49	D	E
1204	39:34:31.26	-122:14:54.13	46	G	E
1205	39:34:27.23	-122:15:07.13	49	G	E
1206	39:34:29.50	-122:15:25.52	52	G	E
1207	39:34:31.40	-122:15:39.82	54	G	E
1206	39:34:33.38	-122:15:56.50	51	G	E
1209	39:34:23.20	-122:18:13.98	60	G	S
1210	39:34:23.05	-122:18:27.70	55	G	E3
1211	39:34:23.12	-122:16:41.27	63	G	S
1212	39:34:04.30	-122:18:44.18	53	G	E3
1213	39:33:55.56	-122:17:00.02	88	G	S
1214	39:33:38.66	-122:17:09.82	82	G	E3
1215	39:33:38.52	-122:17:22.70	64	G	S
1216	39:33:38.34	-122:17:41.57	80	G	E3
1217	39:34:03.07	-122:18:00.32	70	G	S
1218	39:34:07.32	-122:18:14.54	75	G	E3
1219	39:34:16.66	-122:18:29.59	76	G	S
1220	39:34:26.90	-122:18:49.39	78	G	E3
1221	39:34:34.28	-122:19:02.78	88	G	S
1222	39:34:44.15	-122:19:20.88	90	G	E3
1223	39:34:51.82	-122:19:34.50	92	G	S
1224	39:31:52.28	-122:19:28.06	89	G	E3

Table 2 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1225	39:31:53.22	-122:19:42.38	82	G	S
1226	39:31:55.60	-122:19:57.11	87	G	E3
1227	39:31:54.84	-122:20:10.39	83	G	S
1228	39:31:58.12	-122:20:24.90	84	G	E3
1229	39:32:29.90	-122:20:40.38	102	D	S
1230	39:32:48.91	-122:20:58.31	102	D	E3
1231	39:32:59.75	-122:21:14.94	102	D	S
1232	39:33:26.42	-122:21:38.41	104	G	E3
1233	39:33:49.50	-122:21:58.07	108	G	S
1234	39:34:08.85	-122:22:18.80	119	G	E3
1235	39:34:14.88	-122:22:33.46	119	G	S
1236	39:34:24.24	-122:22:48.43	132	G	E3
1237	39:34:43.10	-122:23:03.26	132	G	S
1238	39:34:49.91	-122:23:15.65	127	G	E3
1239	39:34:58.08	-122:23:32.78	135	G	S
1240	39:35:04.20	-122:23:53.02	142	G	E3
1241	39:35:06.40	-122:24:08.73	142	G	S
1242	39:35:08.88	-122:24:21.42	155	G	E3
1243	39:35:11.90	-122:24:35.64	153	G	S
1244	39:35:13.96	-122:24:50.90	155	G	E3
1245	39:35:15.00	-122:25:07.57	180	G	S
1246	39:35:15.40	-122:25:23.02	169	D	E3
1247	39:35:14.71	-122:25:37.81	171	D	S
1246	39:35:18.28	-122:25:54.05	172	D	E3
1249	39:35:17.95	-122:26:11.72	169	G	S
1250	39:35:15.76	-122:26:23.89	177	G	R
1251	39:35:13.31	-122:26:36.28	179	G	S
1252	39:35:17.02	-122:26:53.66	178	G	R
1253	39:35:22.45	-122:27:08.41	184	G	S
1254	39:35:27.31	-122:27:21.08	189	G	R
1255	39:35:39.41	-122:27:39.63	197	G	S
1256	39:35:52.48	-122:27:56.99	206	G	R
1257	39:35:58.94	-122:28:14.48	222	G	S
1258	39:35:56.65	-122:28:27.73	227	G	R
1259	39:35:53.18	-122:28:42.20	231	G	S
1260	39:35:51.94	-122:28:56.86	241	G	R
1261	39:35:48.12	-122:29:10.97	258	G	S
1262	39:35:49.74	-122:29:29.76	274	G	R
1263	39:35:54.92	-122:29:44.88	291	G	S
1264	39:35:54.42	-122:30:00.18	320	G	R
1265	39:35:54.20	-122:30:14.58	351	G	S
1266	39:36:53.35	-122:30:36.72	249	G	R
1267	39:38:54.50	-122:30:51.96	233	G	S
1268	39:36:50.65	-122:31:05.66	220	G	R
1269	39:36:43.96	-122:31:19.27	209	G	S
1270	39:36:40.66	-122:31:32.59	219	D	R
1271	39:38:37.76	-122:31:48.32	223	G	S
1272	39:38:31.21	-122:32:00.96	209	G	R
1273	39:38:11.81	-122:32:13.27	213	G	S
1274	39:35:55.14	-122:32:21.26	219	G	R
1275	39:35:40.74	-122:32:35.34	229	G	S
1276	39:35:42.07	-122:32:51.72	248	D	R
1277	39:35:40.81	-122:33:06.70	258	G	S
1278	39:35:30.16	-122:33:19.55	273	G	R
1279	39:35:30.18	-122:33:34.80	273	G	S
1280	39:35:30.08	-122:33:48.49	277	G	R

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1281	39:35:30.01	-122:34:01.56	281	G	S
1282	39:35:30.08	-122:34:18.41	296	G	R
1283	39:35:22.13	-122:34:30.58	304	G	S
1284	39:35:07.15	-122:34:43.32	306	G	R
1285	39:35:04.24	-122:35:00.24	311	D	S
1286	39:35:04.13	-122:35:15.04	329	D	R
1287	39:35:00.53	-122:35:28.57	343	G	S
1288	39:34:53.38	-122:35:43.37	343	G	R
1289	39:34:42.31	-122:35:53.84	345	G	S
1290	39:34:35.00	-122:36:07.58	364	G	R
1291	39:34:34.28	-122:36:24.66	377	G	S
1292	39:34:31.26	-122:36:39.13	388	G	R
1293	39:34:25.00	-122:36:50.76	392	G	S
1294	39:34:11.75	-122:37:10.81	463	G	R
1295	39:33:44.10	-122:37:12.66	604	G	S
1296	39:33:35.32	-122:37:27.88	667	G	R
1297	39:33:50.47	-122:37:44.87	745	D	S
1296	39:33:47.12	-122:37:55.92	792	G	R
1299	39:33:40.72	-122:38:10.79	907	G	S
1300	39:33:42.19	-122:38:26.88	969	G	R
1301	39:33:35.35	-122:38:41.78	1036	D	S
1302	39:33:28.96	-122:38:54.56	1086	G	R
1303	39:33:28.76	-122:39:09.97	1111	G	S
1304	39:33:26.64	-122:39:23.11	1098	G	R
1305	39:33:28.73	-122:39:39.60	1100	G	S
1306	39:33:30.80	-122:39:54.14	1104	G	R
1307	39:33:28.33	-122:40:10.02	1149	G	S
1306	39:32:43.44	-122:40:16.18	1173	D	R
1309	39:32:04.80	-122:40:24.96	1166	D	S
1310	39:31:51.35	-122:40:37.96	1196	D	R
1311	39:31:43.10	-122:40:52.07	1234	D	S
1312	39:31:38.21	-122:41:04.85	1253	D	R
1313	39:31:29.17	-122:41:17.23	1579	D	S
1314	39:31:19.67	-122:41:30.08	1610	G	R
1315	39:31:13.66	-122:41:46.03	1831	G	S
1316	39:31:13.22	-122:41:59.57	1646	G	R
1317	39:31:18.23	-122:42:16.85	1663	G	S
1318	39:31:16.75	-122:42:26.28	1661	G	R
1319	39:31:16.82	-122:42:45.18	1691	G	S
1320	39:31:05.38	-122:42:58.57	1665	G	R
1321	39:31:02.64	-122:43:12.07	1641	G	S
1322	39:31:01.38	-122:43:23.52	1591	D	R
1323	39:31:01.09	-122:43:34.90	1609	G	S
1324	39:31:01.81	-122:43:48.22	1584	G	R
1325	39:31:04.12	-122:44:05.14	1549	G	S
1326	39:31:06.92	-122:44:16.66	1547	G	R
1327	39:31:09.01	-122:44:36.85	1531	G	S
1328	39:31:17.72	-122:44:51.78	1541	G	R
1329	39:31:18.26	-122:45:14.51	1556	G	S
1330	39:31:20.66	-122:45:24.70	1555	G	R
1331	39:31:20.80	-122:45:36.32	1565	G	S
1332	39:31:21.32	-122:45:52.78	1554	D	R
1333	39:31:08.46	-122:48:06.53	1507	G	S
1334	39:30:59.40	-122:46:18.52	1510	G	R
1335	39:30:56.02	-122:46:31.37	1487	G	S
1336	39:30:57.35	-122:46:45.59	1480	G	R

Table 2 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1337	39:31:01.09	-122:47:04.16	1493	G	S
1338	39:31:06.82	-122:47:21.98	1459	G	R
1339	39:31:12.79	-122:47:38.15	1434	G	S
1340	39:31:16.72	-122:47:51.47	1440	D	R
1341	39:31:17.82	-122:48:08.14	1414	G	S
1342	39:31:15.53	-122:48:23.58	1365	D	R
1343	39:31:15.13	-122:48:38.83	1341	D	S
1344	39:31:15.71	-122:48:52.16	1298	D	R
1345	39:31:16.50	-122:49:08.42	1280	D	S
1346	39:31:14.77	-122:49:15.46	1279	G	R
1347	39:31:14.30	-122:49:28.74	1254	G	S
1348	39:31:09.73	-122:49:51.46	1171	G	R
1349	39:31:17.40	-122:50:03.91	1132	G	S
1350	39:31:29.32	-122:50:22.58	1055	D	R
1361	39:31:30.14	-122:50:38.87	1002	G	S
1352	39:31:38.53	-122:50:54.35	877	D	R
1353	39:30:27.50	-122:50:58.08	872	D	S
1354	39:31:15.31	-122:51:18.07	1006	D	R
1355	39:30:33.59	-122:51:27.43	1085	D	S
1356	39:29:43.30	-122:51:31.93	850	D	R
1357	39:29:38.87	-122:51:47.16	805	D	S
1358	39:28:43.14	-122:51:55.44	939	D	R
1359	39:28:30.36	-122:52:10.52	972	D	S
1360	39:28:18.37	-122:52:21.04	991	D	R
1361	39:28:15.92	-122:52:38.59	1003	D	S
1362	39:28:15.78	-122:52:48.90	1003	D	R
1363	39:28:06.22	-122:53:04.24	1024	D	S
1364	39:27:58.97	-122:53:19.00	1036	D	R
1365	39:27:50.15	-122:53:31.88	1033	D	S
1366	39:27:55.98	-122:53:45.13	1000	D	R
1367	39:27:58.28	-122:54:04.50	942	D	S
1366	39:27:56.52	-122:54:17.89	914	D	R
1369	39:27:48.28	-122:54:32.62	866	D	S
1370	39:27:31.36	-122:54:48.10	792	D	R
1371	39:27:32.11	-122:55:02.21	768	D	S
1372	39:27:29.30	-122:55:15.10	747	D	R
1373	39:27:28.58	-122:55:27.59	732	D	S
1374	39:27:22.90	-122:55:39.00	695	D	R
1375	39:27:18.79	-122:55:51.13	661	D	S
1376	39:27:05.04	-122:56:03.59	616	D	R
1377	39:26:51.79	-122:56:19.03	567	D	S
1378	39:26:44.23	-122:56:34.80	559	D	R
1379	39:26:41.53	-122:56:49.74	561	D	S
1380	39:26:43.01	-122:57:02.16	562	D	R
1361	39:26:44.66	-122:57:19.87	561	D	S
1382	39:26:48.60	-122:57:32.87	561	D	R
1383	39:26:57.37	-122:57:49.14	561	D	S
1384	39:26:57.95	-122:58:04.33	561	D	R
1385	39:26:37.93	-122:58:17.72	562	D	S
1386	39:26:10.03	-122:58:25.58	628	D	R
1387	39:25:42.53	-122:58:35.18	549	D	S
1388	39:25:12.25	-122:58:43.03	538	D	R
1389	39:25:26.85	-122:59:01.39	610	D	S
1390	39:25:30.90	-122:59:17.99	646	D	R
1391	39:25:30.86	-122:58:33.83	683	D	S
1392	39:25:30.56	-122:59:48.80	707	D	R
1393	39:25:24.96	-122:59:59.42	732	D	S
1394	39:25:32.23	-123:00:16.74	771	D	R
1395	39:25:31.84	-123:00:29.74	799	D	S
1396	39:25:38.32	-123:00:45.43	823	D	R
1397	39:25:34.90	-123:01:01.38	817	D	S
1396	39:25:29.71	-123:01:14.74	799	D	R
1399	39:25:07.82	-123:01:23.95	744	D	S
1400	39:24:45.29	-123:01:32.81	701	D	R
1401	39:24:02.84	-123:01:45.84	585	D	S
1402	39:23:56.08	-123:01:57.40	567	D	R
1403	39:23:50.78	-123:02:13.02	585	D	S
1404	39:23:18.67	-123:02:27.56	527	D	R
1405	39:23:09.67	-123:02:41.03	503	D	S
1406	39:22:58.22	-123:02:48.98	500	D	R
1407	39:22:45.62	-123:02:58.67	488	D	S
1408	39:22:35.29	-123:03:16.16	488	D	R
1409	39:22:34.54	-123:03:30.20	488	D	S
1410	39:22:36.59	-123:03:45.25	494	D	R
1411	39:22:30.11	-123:03:59.18	488	D	S
1412	39:22:27.62	-123:04:15.02	488	D	R
1413	39:22:33.67	-123:04:29.39	494	D	S
1414	39:23:03.66	-123:04:50.63	604	D	R
1415	39:23:01.32	-123:05:00.64	555	D	S
1416	39:22:56.08	-123:05:11.44	524	D	R
1417	39:22:59.09	-123:05:24.47	488	D	S
1418	39:22:56.91	-123:05:40.24	460	D	R
1419	39:23:01.10	-123:05:58.99	475	D	S
1420	39:23:05.35	-123:06:14.00	475	D	R
1421	39:23:03.73	-123:06:29.20	472	D	S
1422	39:24:08.70	-123:08:54.07	463	D	R
1423	39:24:17.78	-123:07:13.62	469	D	S
1424	39:25:07.88	-123:07:35.29	454	D	R
1425	39:25:24.53	-123:07:54.16	474	D	S
1426	39:25:51.13	-123:08:11.36	472	D	R
1427	39:25:56.10	-123:08:25.91	457	D	S
1428	39:25:57.90	-123:06:43.01	506	D	
1429	39:25:59.92	-123:09:00.56	573	D	
1430	39:25:54.09	-123:09:12.89	640	D	
1431	39:25:48.67	-123:09:29.56	701	D	
1432	39:25:31.28	-123:09:40.97	658	D	
1433	39:25:40.73	-123:09:56.66	695	D	S
1434	39:25:50.30	-123:10:12.04	768	D	R
1435	39:26:15.25	-123:10:30.25	853	D	S
1436	39:26:52.22	-123:10:58.60	732	D	R
1437	39:26:55.90	-123:11:10.86	695	D	S
1438	39:27:01.08	-123:11:25.15	646	D	R
1439	39:27:08.46	-123:11:42.65	597	D	S
1440	39:27:10.19	-123:11:56.44	591	D	R
1441	39:27:30.28	-123:12:14.44	518	D	S
1442	39:27:28.37	-123:12:28.87	465	D	R
1443	39:27:35.64	-123:12:45.43	512	D	S
1444	39:27:32.36	-123:13:01.78	536	D	R
1445	39:27:27.83	-123:13:18.43	561	D	S
1446	39:27:26.96	-123:13:29.64	524	D	R
1447	39:27:20.27	-123:13:44.11	521	D	S
1448	39:27:18.50	-123:13:55.49	533	D	R

Table 2 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1449	39:27:16.74	-123:14:10.75	573	D	S
1450	39:27:20.02	-123:14:23.21	561	D	R
1451	39:26:12.12	-123:14:28.10	503	D	S
1452	39:26:11.26	-123:14:45.89	512	D	R
1453	39:26:16.37	-123:15:01.62	533	D	S
1454	39:26:18.13	-123:15:16.61	536	D	R
1455	39:26:07.76	-123:15:28.51	564	D	S
1456	39:25:59.64	-123:15:40.97	579	D	R
1457	39:25:51.13	-123:15:54.32	604	D	S
1458	39:25:50.84	-123:16:07.10	549	D	R
1459	39:25:47.75	-123:16:21.47	536	D	S
1460	39:25:40.15	-123:16:31.91	536	D	R
1461	39:25:35.51	-123:16:49.44	500	D	S
1462	39:25:32.56	-123:17:02.65	485	D	R
1463	39:25:40.04	-123:17:19.28	472	D	S
1464	39:25:38.89	-123:17:33.72	451	D	R
1465	39:25:31.44	-123:17:47.33	433	D	S
1466	39:25:34.36	-123:18:03.92	428	D	R
1467	39:25:06.28	-123:18:13.43	439	D	S
1468	39:24:48.46	-123:18:23.51	439	D	R
1469	39:24:47.38	-123:18:40.86	421	D	S
1470	39:24:47.30	-123:18:50.22	419	D	R
1471	39:24:47.41	-123:19:05.95	415	G	S
1472	39:24:48.96	-123:19:19.20	415	G	R
1473	39:24:48.08	-123:19:32.59	418	G	S
1474	39:24:48.10	-123:19:46.06	394	G	R
1475	39:24:48.44	-123:20:05.71	402	G	S
1476	39:24:45.94	-123:20:22.67	404	G	R
1477	39:24:45.83	-123:20:37.32	402	G	S
1478	39:24:45.18	-123:20:57.48	411	G	R
1479	39:24:45.47	-123:21:08.52	410	G	S
1480	39:25:11.75	-123:21:23.22	473	G	R
1481	39:25:25.90	-123:21:37.58	505	G	S
1482	39:25:39.18	-123:21:55.08	510	G	R
1483	39:25:45.59	-123:22:08.47	500	G	S
1484	39:25:53.90	-123:22:29.42	467	G	R
1485	39:26:01.32	-123:22:47.14	461	G	S
1486	39:26:10.18	-123:23:02.54	466	G	R
1487	39:26:27.49	-123:23:24.32	523	G	S
1488	39:26:26.92	-123:23:36.00	582	G	R
1489	39:26:32.03	-123:23:53.20	627	G	S
1490	39:26:37.61	-123:24:07.16	865	G	R
1491	39:26:31.24	-123:24:24.05	729	D	S
1492	39:26:29.44	-123:24:34.85	733	G	R
1493	39:26:36.02	-123:24:50.22	683	G	S
1494	39:26:47.22	-123:25:08.80	742	G	R
1495	39:26:53.16	-123:25:25.57	742	G	S
1496	39:27:02.68	-123:25:41.27	691	G	R
1497	39:27:47.81	-123:26:00.28	776	G	S
1498	39:28:25.97	-123:26:22.67	731	G	R
1499	39:28:45.16	-123:26:42.36	701	D	
1500	39:25:30.32	-123:26:24.65	317	D	
1501	39:25:34.39	-123:26:39.96	317	D	
1502	39:25:40.91	-123:26:56.56	196	D	
1503	39:25:45.44	-123:27:14.94	166	D	
1504	39:25:48.25	-123:27:29.30	171	D	

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1505	39:25:47.14	-123:27:44.78	165	D	
1506	39:25:43.61	-123:27:56.77	164	G	R
1507	39:25:42.49	-123:28:13.73	164	G	S
1508	39:25:45.12	-123:28:31.04	154	G	R
1509	39:25:46.24	-123:28:49.12	145	G	S
1510	39:25:47.46	-123:29:03.08	145	G	R
1511	39:25:41.77	-123:29:15.61	145	G	S
1512	39:25:37.63	-123:29:25.69	145	G	R
1513	39:25:36.23	-123:29:40.85	128	G	S
1514	39:25:13.94	-123:30:21.71	128	D	R
1515	39:25:17.04	-123:30:07.36	122	D	S
1516	39:25:14.38	-123:30:21.56	124	G	R
1517	39:25:15.10	-123:30:36.68	122	G	S
1518	39:25:17.11	-123:30:53.14	118	G	R
1519	39:25:20.42	-123:31:07.50	118	G	S
1520	39:25:17.29	-123:31:18.66	118	G	R
1521	39:25:16.57	-123:31:32.41	118	G	S
1522	39:25:21.40	-123:31:50.30	125	G	R
1523	39:25:25.75	-123:32:08.66	118	G	S
1524	39:25:16.43	-123:32:25.40	118	G	R
1525	39:25:16.10	-123:32:37.39	116	G	S
1526	39:25:16.57	-123:32:51.66	108	G	R
1527	39:25:20.78	-123:33:01.58	104	G	S
1526	39:27:04.75	-123:33:38.05	415	D	R
1529	39:27:10.30	-123:33:55.15	427	D	S
1530	39:27:21.67	-123:34:12.47	445	D	R
1531	39:27:24.37	-123:34:26.63	451	D	S
1532	39:27:22.93	-123:34:41.38	451	D	R
1533	39:27:29.99	-123:34:57.76	439	D	S
1534	39:27:30.74	-123:35:13.24	454	D	R
1535	39:27:25.63	-123:35:25.84	466	D	S
1536	39:27:43.52	-123:35:45.10	500	D	R
1537	39:27:46.22	-123:36:00.22	518	D	S
1538	39:27:57.26	-123:36:17.10	494	D	R
1539	39:27:58.93	-123:36:32.26	488	D	S
1540	39:27:56.02	-123:36:47.95	469	D	R
1541	39:27:53.39	-123:37:01.67	475	D	S
1542	39:27:17.32	-123:37:11.62	469	D	R
1543	39:27:10.12	-123:37:26.29	457	D	S
1544	39:26:59.50	-123:37:39.66	448	D	R
1545	39:26:52.22	-123:37:51.49	448	D	S
1546	39:26:38.33	-123:38:04.24	415	D	R
1547	39:26:33.50	-123:38:17.74	390	D	S
1548	39:27:00.66	-123:38:37.97	317	D	R
1549	39:27:22.79	-123:38:57.37	256	D	S
1550	39:27:22.07	-123:39:10.94	244	D	R
1551	39:27:23.76	-123:39:26.57	280	D	S
1552	39:27:36.65	-123:39:44.66	250	D	R
1553	39:27:53.10	-123:40:00.96	232	D	S
1554	39:27:55.08	-123:40:17.29	285	D	R
1555	39:28:09.66	-123:40:34.18	244	D	S
1556	39:28:21.18	-123:40:50.81	235	D	R
1557	39:28:27.41	-123:41:06.63	219	D	S
1558	39:28:17.56	-123:41:20.33	232	D	R
1559	39:28:10.45	-123:41:34.19	213	D	S
1560	39:28:08.90	-123:41:48.80	241	D	R

Table 2 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
1561	39:28:02.42	-123:42:02.74	244	D	S
1562	39:27:53.60	-123:42:16.16	256	D	S
1563	39:27:17.93	-123:42:25.56	293	D	S
1564	39:27:00.56	-123:42:39.10	250	G	S
1565	39:26:45.31	-123:42:49.57	271	D	S
1566	39:26:39.26	-123:43:02.17	192	G	S
1567	39:26:29.62	-123:43:17.22	192	G	S
1566	39:26:31.67	-123:43:33.74	219	D	S
1569	39:26:32.75	-123:43:49.26	211	G	S
1570	39:26:38.33	-123:44:07.69	198	G	S
1571	39:26:43.87	-123:44:20.72	189	G	S

TABLE 3

Station locations (latitude and longitude), elevations (m) and instrument type (R = REFTEK, S = SGR, E = PRS-1, E3 = PRS-4 and B = blank (no instrument was put at this location)) for the stations on Line 6. Locations determined from GPS data are marked G, and from digitised data, D.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6001	40:20:41.50	-121:44:07.04	1161	G	E
6002	40:20:41.64	-121:44:23.46	1131	G	B
6003	40:20:42.14	-121:44:37.21	1113	G	E
6004	40:20:42.68	-121:44:55.72	1090	G	B
6005	40:20:43.08	-121:45:11.02	1071	G	E
6006	40:20:44.45	-121:45:28.51	1077	G	B
6007	40:20:47.72	-121:45:41.08	1067	G	E
6008	40:20:51.81	-121:45:58.23	1052	G	B
6009	40:20:55.00	-121:46:08.90	1027	G	E
6010	40:20:58.63	-121:46:23.16	1025	G	B
6011	40:21:02.27	-121:46:37.02	1019	G	E
6012	40:21:07.27	-121:46:50.88	999	G	B
6013	40:21:13.00	-121:47:04.16	983	G	E
6014	40:21:19.04	-121:47:18.92	959	G	B
6015	40:21:24.55	-121:47:31.85	946	G	E
6016	40:21:27.32	-121:47:46.75	941	G	B
6017	40:21:28.01	-121:48:01.26	935	G	E
6018	40:21:27.22	-121:48:17.06	924	G	B
6019	40:21:22.97	-121:48:33.41	904	G	E
6020	40:21:15.37	-121:46:52.49	896	G	B
6021	40:20:59.03	-121:49:13.88	887	G	E
6022	40:20:40.27	-121:49:37.13	875	G	B
6023	40:20:29.62	-121:49:56.03	844	G	E
6024	40:20:19.43	-121:50:13.78	822	G	B
6025	40:20:22.99	-121:50:28.90	795	G	E
6026	40:20:37.32	-121:50:38.22	770	G	B
6027	40:20:50.64	-121:50:46.77	742	G	E
6028	40:20:51.94	-121:51:01.37	715	G	B
6029	40:20:46.88	-121:51:21.82	697	G	E
6030	40:20:48.66	-121:51:35.35	670	G	B
6031	40:20:48.23	-121:51:52.13	683	G	E
6032	40:20:46.84	-121:52:08.76	679	G	B
6033	40:20:48.95	-121:52:24.89	673	G	E
6034	40:20:48.96	-121:52:38.98	668	G	B
6035	40:20:47.51	-121:52:53.69	661	G	E
6036	40:20:45.17	-121:53:09.53	658	G	B
6037	40:20:42.83	-121:53:24.76	650	G	E
6038	40:20:36.60	-121:53:43.82	639	G	B
6039	40:20:30.70	-121:54:00.86	634	G	E
6040	40:20:25.01	-121:54:17.24	623	G	B
6041	40:20:18.35	-121:54:37.08	625	G	E
6042	40:20:58.67	-121:54:35.50	597	G	E
6043	40:21:12.89	-121:54:47.84	571	G	E
6044	40:21:28.66	-121:54:59.22	524	D	E
6045	40:21:40.82	-121:55:08.51	512	G	E
6046	40:21:50.63	-121:55:17.38	527	G	E
6047	40:22:09.23	-121:55:22.58	490	G	E
6048	40:22:18.52	-121:55:35.98	475	G	E
6049	40:22:24.96	-121:55:48.65	450	G	E
6050	40:22:32.27	-121:56:00.58	445	G	E
6051	40:22:37.20	-121:56:13.13	452	G	E
6052	40:22:44.76	-121:56:29.08	425	G	E
6053	40:22:55.92	-121:56:39.55	431	G	E
6054	40:23:03.68	-121:56:50.60	426	G	E
6055	40:23:08.56	-121:57:05.36	426	G	E
6056	40:23:17.27	-121:57:17.96	419	G	E
6057	40:23:21.16	-121:57:32.90	417	G	E
6058	40:23:30.55	-121:57:44.75	406	G	E
6059	40:23:44.23	-121:57:53.53	402	G	E
6060	40:23:49.96	-121:58:10.09	370	G	E
6061	40:23:55.10	-121:58:21.18	363	G	E
6062	40:24:02.41	-121:58:34.28	352	G	E
6063	40:24:11.34	-121:58:46.06	346	G	E
6064	40:24:17.28	-121:59:01.54	339	G	E
6065	40:24:21.82	-121:59:14.10	333	G	E
6066	40:24:13.03	-121:59:33.29	329	G	E
6067	40:24:00.14	-121:59:54.60	324	G	E
6068	40:24:10.80	-122:00:07.96	318	G	E
6069	40:24:11.05	-122:00:21.10	312	G	E
6070	40:24:11.20	-122:00:34.74	312	G	E
6071	40:24:11.45	-122:00:49.72	299	G	E
6072	40:24:11.74	-122:01:04.40	300	D	E
6073	40:24:11.92	-122:01:23.16	301	G	E
6074	40:24:11.45	-122:01:36.08	294	D	E
6075	40:24:11.88	-122:02:03.44	288	G	E
6076	40:24:12.06	-122:02:17.70	277	G	E
6077	40:24:11.95	-122:02:22.20	274	D	E
6078	40:24:11.99	-122:02:46.84	273	G	E
6079	40:24:12.28	-122:03:05.90	265	G	E
6080	40:24:12.38	-122:03:14.67	261	G	E
6081	40:24:09.72	-122:03:24.55	262	G	E
6082	40:24:02.66	-122:03:42.30	259	G	E
6083	40:23:55.97	-122:03:59.11	246	G	E
6084	40:23:51.54	-122:04:17.22	244	G	E
6085	40:23:50.24	-122:04:31.58	229	G	E
6086	40:23:38.51	-122:04:51.02	248	G	E
6087	40:23:39.88	-122:05:04.85	238	G	E
6088	40:23:41.88	-122:05:20.40	265	G	E
6089	40:23:37.61	-122:05:35.70	277	G	E
6090	40:23:40.31	-122:05:58.85	273	G	E
6091	40:23:38.90	-122:08:07.85	238	G	E
6092	40:23:36.82	-122:08:24.95	232	G	E
6093	40:23:38.84	-122:08:41.47	222	G	E
6094	40:23:35.63	-122:08:54.14	223	G	E
6095	40:23:32.42	-122:07:11.82	207	G	E
6096	40:23:31.27	-122:07:28.31	210	G	E
6097	40:23:29.82	-122:07:44.51	196	G	E
6098	40:23:35.05	-122:07:57.94	189	G	E
6099	40:23:36.42	-122:08:12.77	188	G	E
6100	40:23:36.74	-122:08:29.51	188	G	E
6101	40:23:29.90	-122:08:47.18	169	G	E
6102	40:23:25.44	-122:09:03.24	188	G	E
6103	40:23:21.70	-122:09:23.18	175	G	E
6104	40:23:02.26	-122:09:42.66	127	D	E
6105	40:23:08.83	-122:09:56.77	126	D	E
6106	40:23:08.96	-122:10:09.59	126	D	E
6107	40:23:10.97	-122:10:25.68	117	G	E
6108	40:23:23.35	-122:10:35.69	117	G	E
6109	40:23:54.13	-122:10:41.70	112	G	E
6110	40:24:12.06	-122:10:50.88	118	G	E
6111	40:24:33.16	-122:10:58.48	121	G	E
6112	40:24:41.98	-122:11:10.97	117	G	E

Table 3 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6113	40:24:51.66	-122:11:23.24	118	G	E
6114	40:25:02.53	-122:11:39.88	119	G	E
6115	40:24:57.49	-122:11:51.68	115	G	E
6116	40:24:52.60	-122:12:09.54	117	G	E
6117	40:24:58.07	-122:12:23.69	115	G	E
6118	40:25:03.83	-122:12:38.99	114	G	E
6119	40:24:59.65	-122:12:52.42	111	G	E
6120	40:24:42.91	-122:13:13.80	124	G	E
6121	40:24:25.13	-122:13:38.34	123	G	E
6122	40:24:14.98	-122:13:54.01	129	G	E
6123	40:24:14.67	-122:14:08.30	135	G	E
6124	40:24:14.65	-122:14:22.38	127	G	E
6125	40:24:04.00	-122:14:43.01	139	G	E
6126	40:24:05.87	-122:14:58.74	137	G	E
6127	40:24:28.86	-122:15:07.24	147	G	E
6128	40:24:53.42	-122:15:14.76	170	G	E
6129	40:24:46.44	-122:15:32.47	170	G	E
6130	40:24:43.74	-122:15:44.64	195	G	E
6131	40:24:47.74	-122:16:00.41	187	G	E
6132	40:24:55.48	-122:16:16.97	169	G	E
6133	40:25:23.88	-122:16:20.93	129	G	E
8134	40:24:35.35	-122:16:53.36	172	G	E
6135	40:25:00.91	-122:16:59.63	187	G	E
6136	40:25:07.79	-122:17:13.27	198	G	E
6137	40:25:08.00	-122:17:31.38	198	G	E
6138	40:25:07.72	-122:17:48.48	202	G	E
6139	40:25:07.82	-122:18:05.83	200	G	E
6140	40:25:07.88	-122:18:20.81	205	G	E
6141	40:25:07.61	-122:18:33.80	202	G	E
6142	40:25:02.78	-122:18:50.00	201	G	E
6143	40:24:57.02	-122:19:06.53	208	G	E
6144	40:24:58.88	-122:19:22.60	208	G	E
6145	40:24:55.64	-122:19:39.11	206	G	E
6148	40:24:54.54	-122:19:52.14	205	G	E
6147	40:24:54.07	-122:20:08.92	210	G	E
6148	40:24:53.88	-122:20:20.83	206	G	E
8149	40:24:46.87	-122:20:40.92	207	G	E
6150	40:24:56.12	-122:20:54.31	210	G	E
6151	40:25:03.47	-122:21:07.87	198	G	E
6152	40:25:03.90	-122:21:21.28	213	G	E
6153	40:25:03.18	-122:21:35.50	212	G	E
6154	40:25:08.54	-122:21:53.39	226	G	E
6155	40:25:18.26	-122:22:02.39	223	G	E
6156	40:25:24.74	-122:22:15.78	221	G	E
8157	40:25:30.97	-122:22:34.21	221	D	E
6158	40:25:36.16	-122:22:44.54	217	G	E
6159	40:25:40.55	-122:22:58.06	213	G	E
6160	40:25:41.63	-122:23:06.94	225	G	E
6161	40:25:43.38	-122:23:18.17	223	D	E
6162	40:25:55.02	-122:23:31.45	216	G	E
6163	40:26:09.13	-122:23:47.40	219	G	E
6164	40:26:22.02	-122:23:59.10	230	G	E
6165	40:26:22.42	-122:24:13.72	240	G	E
6166	40:26:22.42	-122:24:29.64	219	G	E
6167	40:26:22.20	-122:24:43.88	235	G	E
6168	40:26:22.58	-122:24:55.33	237	G	E

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6169	40:26:21.73	-122:25:13.40	237	G	E
6170	40:26:21.80	-122:25:26.58	240	D	E
6171	40:26:21.88	-122:25:44.90	245	G	E
6172	40:26:21.05	-122:26:01.00	241	G	E
6173	40:26:45.67	-122:26:07.94	245	G	E
6174	40:26:50.06	-122:26:22.49	244	G	E
6175	40:26:53.45	-122:26:34.55	259	G	E
6176	40:26:58.13	-122:26:50.17	256	G	E
6177	40:27:01.66	-122:27:02.70	253	G	E
6178	40:27:23.62	-122:27:11.92	257	G	E
6179	40:26:07.97	-122:27:12.35	257	G	E
6180	40:26:26.87	-122:27:23.80	254	G	E
6181	40:28:26.29	-122:27:39.53	253	G	E
6182	40:28:25.93	-122:27:52.42	260	G	E
6183	40:26:26.04	-122:28:08.26	259	G	E
6184	40:28:25.64	-122:28:28.42	271	G	E
6185	40:28:25.25	-122:28:38.24	271	D	E
6188	40:28:24.74	-122:28:53.54	271	D	E
6187	40:28:25.00	-122:29:09.02	276	D	E
6188	40:28:31.55	-122:29:23.14	276	D	E
6189	40:28:37.56	-122:29:38.58	276	D	E
6190	40:28:51.38	-122:29:46.61	279	D	E
6191	40:28:49.40	-122:30:04.10	285	D	E
6192	40:28:54.59	-122:30:15.34	290	D	E
6193	40:29:01.64	-122:30:28.40	292	D	E
6194	40:29:14.28	-122:30:39.53	296	G	E
6195	40:29:27.85	-122:30:48.82	309	G	E
6196	40:29:18.82	-122:31:09.48	267	G	E
6197	40:29:23.39	-122:31:22.30	276	G	E
6198	40:29:27.85	-122:31:39.29	289	G	E
6199	40:29:23.93	-122:31:58.98	309	G	E
6200	40:29:26.02	-122:32:14.46	310	G	E
6201	40:29:24.29	-122:32:29.40	334	G	E
6202	40:29:23.14	-122:32:43.98	344	G	E
6203	40:29:24.65	-122:33:01.87	320	G	E
6204	40:29:25.06	-122:33:12.13	305	D	E
6205	40:29:24.76	-122:33:27.00	313	D	E
6206	40:29:06.18	-122:33:48.49	293	D	E
6207	40:29:02.83	-122:34:04.40	263	D	E
6206	40:26:59.95	-122:34:21.32	278	D	E
6209	40:28:55.31	-122:34:37.63	272	D	E
6210	40:28:53.72	-122:34:53.11	268	D	E
6211	40:28:50.77	-122:35:06.70	263	D	E
8212	40:28:46.24	-122:35:26.52	265	D	E
8213	40:28:38.80	-122:35:43.22	268	D	E
8214	40:28:37.67	-122:35:59.35	274	D	E
8215	40:28:40.44	-122:38:13.28	283	D	E
6216	40:28:35.26	-122:36:29.38	293	D	E
6217	40:28:27.59	-122:38:46.33	288	D	E
6218	40:28:29.64	-122:37:05.52	301	G	E
6219	40:28:28.31	-122:37:19.16	280	G	E
6220	40:28:37.09	-122:37:33.89	318	G	E
6221	40:28:52.38	-122:37:48.22	366	G	S
6222	40:28:58.89	-122:37:51.20	385	G	E
6223	40:28:53.94	-122:38:10.39	381	G	S
6224	40:28:53.04	-122:38:26.05	416	G	E

Table 3 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6225	40:28:45.52	-122:38:42.18	417	G	S
6226	40:28:45.48	-122:38:59.39	427	G	E
6227	40:28:55.31	-122:39:12.53	429	G	S
6228	40:29:00.82	-122:39:25.49	426	G	E
6229	40:28:57.07	-122:38:40.82	425	G	S
6230	40:28:56.89	-122:38:53.57	446	G	E
6231	40:28:55.34	-122:40:11.35	491	G	S
6232	40:29:01.64	-122:40:28.18	509	G	E
6233	40:29:11.44	-122:40:37.52	531	G	S
6234	40:29:22.98	-122:40:44.58	580	G	E
6235	40:29:28.14	-122:40:59.66	824	G	S
6236	40:29:38.53	-122:41:17.41	675	G	E
6237	40:30:02.38	-122:41:25.51	658	D	S
6238	40:30:01.87	-122:41:39.98	622	D	E
6239	40:29:52.91	-122:41:41.84	623	G	S
6240	40:29:42.00	-122:42:03.02	580	G	E
6241	40:29:26.99	-122:42:24.30	637	G	S
6242	40:29:42.22	-122:42:48.53	736	G	E
6243	40:29:45.71	-122:43:01.38	797	G	S
6244	40:29:41.26	-122:43:16.44	800	G	E
6245	40:29:46.57	-122:43:33.46	744	G	S
6246	40:29:52.19	-122:43:46.24	707	G	E
6247	40:29:55.79	-122:43:59.30	680	G	S
6248	40:30:02.56	-122:44:12.26	701	D	E
6249	40:30:18.11	-122:44:22.67	719	D	S
6250	40:30:27.00	-122:44:36.92	744	D	E
6251	40:30:35.53	-122:44:49.92	759	D	S
6252	40:30:45.66	-122:45:03.35	800	D	E
6253	40:30:56.05	-122:45:15.08	806	D	S
6254	40:31:05.70	-122:45:26.24	845	D	E
6255	40:31:15.13	-122:45:38.81	880	D	S
6256	40:31:18.59	-122:45:54.90	902	D	E
6257	40:31:27.30	-122:46:07.10	1140	D	S
6256	40:31:31.26	-122:46:19.68	1195	D	E
6259	40:31:42.38	-122:46:31.33	1242	D	S
6260	40:31:50.68	-122:46:44.54	1408	D	E
6281	40:32:01.90	-122:46:57.11	1426	D	S
6262	40:32:59.68	-122:46:54.82	1669	G	R
6263	40:33:24.12	-122:47:01.66	1582	G	S
6264	40:33:44.66	-122:47:11.72	1500	D	R
6265	40:33:52.98	-122:47:24.65	1405	D	S
6266	40:34:07.61	-122:47:35.66	1366	D	R
6267	40:34:44.62	-122:47:40.49	1225	D	S
6268	40:35:32.39	-122:47:40.02	890	G	R
6269	40:35:37.66	-122:47:55.03	875	D	S
6270	40:35:48.12	-122:48:08.71	859	G	R
6271	40:35:57.05	-122:46:21.10	838	G	S
6272	40:36:05.29	-122:46:37.98	821	G	R
6273	40:36:05.22	-122:48:49.66	766	G	S
6274	40:36:03.85	-122:49:06.02	784	G	R
6275	40:36:01.55	-122:49:19.20	779	G	S
6276	40:36:00.83	-122:49:34.07	762	G	R
6277	40:36:00.07	-122:49:49.73	758	G	S
6278	40:35:58.75	-122:50:04.81	725	G	R
6279	40:35:54.92	-122:50:24.97	718	D	S
6280	40:35:59.82	-122:50:36.35	701	G	R

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6281	40:38:00.94	-122:50:48.77	717	G	S
6282	40:38:01.26	-122:51:05.29	681	G	R
6283	40:38:04.10	-122:51:23.04	687	G	S
6284	40:38:07.34	-122:51:35.32	687	G	R
6285	40:38:10.84	-122:51:46.73	673	G	S
6286	40:38:16.24	-122:52:00.66	688	G	R
6287	40:36:19.98	-122:52:11.60	692	G	S
6288	40:38:22.68	-122:52:25.10	671	G	R
6289	40:36:25.56	-122:52:45.41	738	G	S
6290	40:38:22.03	-122:53:01.50	692	G	R
6291	40:38:20.95	-122:53:17.74	845	G	S
6292	40:36:19.62	-122:53:33.07	633	G	R
6293	40:36:16.70	-122:53:46.84	614	G	S
6294	40:38:12.64	-122:54:03.48	597	G	R
6295	40:36:10.44	-122:54:21.67	577	G	S
6296	40:38:12.38	-122:54:34.67	591	G	R
6297	40:36:15.12	-122:54:46.71	574	G	S
6298	40:36:19.91	-122:55:02.68	577	G	R
6299	40:36:25.20	-122:55:18.84	589	G	S
6300	40:36:30.71	-122:55:34.61	585	G	R
6301	40:36:38.95	-122:55:45.34	579	G	S
6302	40:36:51.77	-122:55:56.71	558	G	R
6303	40:36:46.46	-122:56:13.24	644	G	S
6304	40:36:49.54	-122:56:27.92	634	G	R
6305	40:38:53.93	-122:58:40.67	610	G	S
6306	40:37:19.63	-122:58:49.31	557	G	R
6307	40:37:26.90	-122:57:03.10	564	G	S
6308	40:37:31.26	-122:57:18.76	525	G	R
6309	40:37:31.30	-122:57:33.12	537	G	S
6310	40:37:15.84	-122:57:51.59	578	G	R
6311	40:36:57.89	-122:58:13.67	580	G	S
6312	40:37:06.98	-122:58:23.77	651	G	R
6313	40:37:06.84	-122:58:42.24	664	G	S
6314	40:36:08.53	-122:59:14.84	970	D	R
6315	40:36:05.40	-122:59:30.12	980	D	S
6316	40:36:10.76	-122:59:40.52	1010	D	R
6317	40:36:14.58	-122:59:55.46	1040	D	S
6318	40:36:02.77	-123:00:14.76	1080	D	R
6319	40:35:37.82	-123:00:38.99	1105	D	S
6320	40:35:44.59	-123:00:52.02	1080	D	R
6321	40:35:34.46	-123:01:10.81	1055	D	S
6322	40:35:29.51	-123:01:27.66	1030	D	R
6323	40:35:05.46	-123:01:50.68	975	D	S
6324	40:35:04.52	-123:02:06.32	945	D	R
6325	40:34:48.68	-123:02:26.63	917	D	S
6326	40:34:43.46	-123:02:43.15	890	D	R
6327	40:34:37.16	-123:03:00.97	665	D	S
6328	40:34:45.08	-123:03:13.90	840	D	R
6329	40:34:47.60	-123:03:28.40	822	D	S
6330	40:34:51.42	-123:03:42.70	815	D	R
6331	40:34:53.08	-123:03:57.89	802	D	S
6332	40:34:58.73	-123:04:10.58	798	D	R
6333	40:35:01.66	-123:04:24.35	798	D	S
6334	40:34:55.85	-123:04:49.40	790	D	R
6335	40:34:44.00	-123:05:07.44	770	D	S
6336	40:34:34.66	-123:05:21.01	765	D	R

Table 3 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6337	40:34:26.98	-123:05:36.28	765	D	S
6338	40:34:16.79	-123:05:55.36	765	D	R
6339	40:33:29.41	-123:06:26.98	762	D	S
6340	40:33:30.87	-123:05:40.72	747	D	R
6341	40:33:33.84	-123:06:56.77	742	D	S
6342	40:33:32.83	-123:07:11.24	742	D	R
6343	40:33:31.62	-123:07:26.69	740	D	S
6344	40:33:29.99	-123:07:42.60	730	D	R
6345	40:33:26.96	-123:07:56.89	725	D	S
6346	40:33:16.96	-123:06:20.69	726	D	R
6347	40:33:09.50	-123:08:36.92	718	D	S
6348	40:33:05.36	-123:06:51.40	718	D	R
6349	40:33:05.40	-123:09:07.49	716	D	S
6350	40:33:06.98	-123:09:22.81	712	D	R
6351	40:33:08.78	-123:09:35.93	710	D	S
6352	40:33:09.68	-123:09:51.34	710	D	R
6353	40:33:13.10	-123:10:04.19	710	D	S
6354	40:33:48.06	-123:10:09.90	745	D	R
6355	40:33:48.15	-123:10:26.36	744	D	S
6356	40:34:18.05	-123:10:31.58	762	D	R
6357	40:34:18.23	-123:10:46.99	770	D	S
6358	40:34:17.87	-123:11:01.00	790	D	R
6359	40:34:16.32	-123:11:17.41	798	D	S
6360	40:33:12.35	-123:11:53.88	703	D	R
6361	40:33:12.28	-123:12:07.88	708	D	S
6362	40:33:12.31	-123:12:24.46	702	D	R
6363	40:33:12.24	-123:12:39.96	695	D	S
6364	40:33:13.10	-123:12:55.98	692	D	R
6365	40:33:19.33	-123:13:09.41	692	D	S
6366	40:33:22.00	-123:13:23.48	691	D	R
6367	40:33:27.90	-123:13:35.58	691	D	S
6366	40:33:33.26	-123:13:46.29	690	D	R
6369	40:34:03.65	-123:13:55.06	695	D	S
6370	40:34:12.94	-123:14:09.95	693	D	R
8371	40:34:25.50	-123:14:19.28	678	D	S
8372	40:34:32.41	-123:14:34.04	678	D	R
6373	40:34:35.00	-123:14:46.28	675	D	S
6374	40:34:36.82	-123:15:01.44	675	D	R
6375	40:35:00.53	-123:15:11.52	675	D	S
6376	40:35:09.20	-123:15:24.19	665	D	R
6377	40:35:16.58	-123:15:40.21	665	D	S
6378	40:35:45.42	-123:15:45.65	650	D	R
6379	40:35:55.79	-123:15:56.23	655	D	S
6360	40:36:00.25	-123:16:07.86	650	D	R
6361	40:35:54.13	-123:16:26.22	650	D	S
6362	40:35:44.92	-123:16:45.52	635	D	R
6383	40:36:02.70	-123:16:53.15	845	D	S
6384	40:36:13.72	-123:17:05.82	670	D	R
6365	40:36:13.57	-123:17:22.27	695	D	S
6366	40:36:20.81	-123:17:34.04	710	D	R
6367	40:36:44.78	-123:17:42.47	735	D	S
6366	40:36:52.85	-123:17:55.54	750	D	R
6369	40:37:09.19	-123:18:05.33	750	D	S
6390	40:37:01.09	-123:18:22.98	730	D	R
6391	40:37:17.47	-123:18:33.41	750	D	S
6392	40:37:20.88	-123:18:47.09	750	D	R

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6393	40:37:30.40	-123:19:00.98	760	D	S
6394	40:37:22.73	-123:19:18.84	756	D	R
6395	40:37:13.60	-123:19:35.54	730	D	S
6396	40:37:10.85	-123:19:51.67	690	D	R
6397	40:37:04.44	-123:20:09.10	685	D	S
6396	40:36:59.29	-123:20:25.62	845	D	R
6399	40:37:02.06	-123:20:41.46	660	D	S
6400	40:36:49.29	-123:20:59.32	692	D	R
6401	40:36:57.74	-123:21:12.10	675	D	S
6402	40:37:00.59	-123:21:25.36	675	D	R
6403	40:37:07.72	-123:21:37.76	710	D	S
6404	40:37:11.06	-123:21:53.28	664	G	R
6405	40:37:15.71	-123:22:08.02	624	G	S
6406	40:37:13.51	-123:22:22.19	595	D	R
6407	40:37:21.98	-123:22:36.19	618	D	S
6406	40:37:26.87	-123:22:51.28	620	D	R
6409	40:37:26.42	-123:23:03.95	630	D	S
8410	40:37:34.75	-123:23:17.06	620	D	R
8411	40:37:32.38	-123:23:32.98	590	D	S
8412	40:37:32.38	-123:23:47.69	590	D	R
8413	40:37:31.60	-123:24:04.43	580	D	S
6414	40:37:26.87	-123:24:20.30	550	D	R
6415	40:37:27.80	-123:24:37.33	558	G	S
6416	40:37:29.84	-123:24:53.17	572	G	R
8417	40:37:26.44	-123:25:07.25	563	G	S
8418	40:37:28.67	-123:25:21.79	575	G	R
8419	40:37:26.26	-123:25:36.52	560	G	S
6420	40:37:12.72	-123:25:55.60	501	G	R
6421	40:37:10.16	-123:26:13.70	469	G	S
6422	40:37:03.68	-123:26:30.05	425	G	R
6423	40:36:29.20	-123:27:03.35	393	G	S
6424	40:36:33.95	-123:27:10.51	421	G	R
6425	40:36:48.17	-123:27:21.42	415	G	S
6426	40:36:52.98	-123:27:34.02	402	G	R
6427	40:37:02.35	-123:27:46.51	391	G	S
6428	40:37:09.98	-123:28:00.55	387	G	R
6429	40:37:14.52	-123:28:14.09	388	G	S
6430	40:37:11.38	-123:28:26.09	400	G	R
6431	40:37:00.30	-123:28:48.50	461	G	S
6432	40:37:00.26	-123:29:02.26	506	G	R
6433	40:36:55.04	-123:29:16.33	516	G	S
6434	40:37:06.51	-123:29:32.84	590	G	R
6435	40:37:11.39	-123:29:44.63	598	D	S
6436	40:37:28.27	-123:29:56.63	658	D	R
6437	40:37:29.64	-123:30:13.97	707	D	S
6438	40:37:41.88	-123:30:25.38	766	D	R
6439	40:37:37.52	-123:30:43.60	628	D	S
6440	40:37:46.09	-123:30:57.35	890	D	R
6441	40:36:01.97	-123:31:07.32	983	D	S
6442	40:38:00.71	-123:31:24.10	1012	D	R
6443	40:38:02.62	-123:31:37.34	1049	D	S
6444	40:37:55.99	-123:31:53.76	1109	D	R
6445	40:36:03.19	-123:32:07.04	1122	D	S
6446	40:36:12.44	-123:32:36.69	1143	G	R
6447	40:36:20.83	-123:32:42.54	1176	G	S
6448	40:38:33.04	-123:32:47.47	1160	G	R

Table 3 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6449	40:38:44.99	-123:33:01.44	1166	G	S
6450	40:39:10.51	-123:33:05.76	1174	G	R
6451	40:39:14.80	-123:33:16.81	1169	G	S
6452	40:39:30.24	-123:33:27.94	1160	G	R
6453	40:39:49.97	-123:33:33.88	1167	G	S
6454	40:39:52.78	-123:33:52.02	1183	G	R
6455	40:39:54.83	-123:34:06.88	1210	G	S
6456	40:39:57.80	-123:34:18.41	1256	G	R
6457	40:39:58.25	-123:34:29.82	1299	G	S
6458	40:40:00.80	-123:34:43.18	1313	G	R
6459	40:40:02.35	-123:34:59.59	1364	G	S
6460	40:40:26.69	-123:35:35.70	1402	G	R
6461	40:40:26.70	-123:35:51.65	1456	G	S
6462	40:39:59.72	-123:35:51.36	1617	D	R
6463	40:40:15.17	-123:36:02.02	1551	D	S
6464	40:40:34.03	-123:36:12.89	1445	D	R
6465	40:40:42.88	-123:36:24.95	1366	D	S
6466	40:41:00.28	-123:37:23.95	1456	G	R
6467	40:37:29.88	-123:37:54.80	1341	D	S
6468	40:37:25.72	-123:38:12.08	1332	D	R
6469	40:37:29.75	-123:36:26.30	1353	D	S
6470	40:37:37.92	-123:38:39.48	1359	D	R
6471	40:37:43.90	-123:38:50.53	1322	G	S
6472	40:37:42.42	-123:39:06.70	1307	G	R
6473	40:37:40.65	-123:39:22.57	1319	G	S
6474	40:37:45.55	-123:39:32.28	1235	G	R
6475	40:37:50.30	-123:39:49.50	1240	G	S
6476	40:37:56.01	-123:40:05.10	1155	G	R
6477	40:38:22.80	-123:40:12.00	1076	D	S
6478	40:38:43.22	-123:40:21.07	966	D	R
6479	40:38:25.88	-123:40:41.59	876	D	S
6480	40:38:32.78	-123:40:53.87	820	D	R
6481	40:36:11.80	-123:41:17.63	883	D	S
6482	40:37:59.86	-123:41:35.52	884	D	R
6483	40:36:34.64	-123:41:40.85	899	D	S
6484	40:38:46.64	-123:41:51.79	875	D	R
6485	40:36:55.39	-123:42:04.75	918	G	S
6486	40:38:55.00	-123:42:20.45	866	G	R
6487	40:39:02.34	-123:42:34.02	759	G	S
6488	40:39:06.86	-123:42:48.46	872	D	R
6489	40:39:12.92	-123:42:56.82	759	G	S
6490	40:39:26.10	-123:43:14.18	863	D	R
6491	40:39:37.22	-123:43:23.23	749	G	S
6492	40:39:51.52	-123:43:35.62	738	G	R
6493	40:40:00.59	-123:43:49.62	695	D	S
6494	40:39:53.86	-123:44:06.34	738	G	R
6495	40:39:39.31	-123:44:27.85	674	G	S
6496	40:39:40.18	-123:44:41.88	682	G	R
6497	40:39:25.31	-123:44:59.35	608	D	S
6498	40:39:23.90	-123:45:15.62	521	D	R
6499	40:39:17.78	-123:45:33.23	527	G	S
6500	40:39:20.20	-123:45:47.52	518	D	R
6501	40:39:16.56	-123:46:06.80	399	G	S
6502	40:39:16.04	-123:46:21.36	373	G	R
6503	40:39:17.98	-123:46:37.16	478	G	S
6504	40:39:18.29	-123:46:51.20	564	G	R

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
6505	40:39:26.32	-123:47:05.96	573	G	S
6506	40:39:28.73	-123:47:20.80	574	G	R
6507	40:39:45.14	-123:47:28.75	570	D	S
6508	40:39:41.04	-123:47:44.88	548	G	R
6509	40:39:30.02	-123:48:02.52	538	G	S
6510	40:39:39.02	-123:48:15.08	526	G	R
6511	40:39:45.22	-123:48:29.99	547	G	S
6512	40:39:45.88	-123:48:43.49	550	G	R
6513	40:39:48.46	-123:48:58.21	576	G	S
6514	40:39:56.39	-123:49:13.40	600	G	R
6515	40:40:12.54	-123:49:24.80	625	G	S
6516	40:40:23.02	-123:49:32.88	586	G	R
6517	40:40:34.21	-123:49:47.32	569	G	S
6518	40:40:56.88	-123:49:59.52	568	G	R
6519	40:41:05.53	-123:50:13.24	537	G	S
6520	40:39:57.78	-123:50:44.95	311	D	R
6521	40:40:10.06	-123:50:56.72	329	D	S
6522	40:40:16.97	-123:51:15.82	347	G	R
6523	40:40:22.58	-123:51:26.10	371	G	S
6524	40:40:41.09	-123:51:34.08	417	G	R
6525	40:41:15.97	-123:51:39.82	307	G	S
6526	40:41:28.39	-123:51:52.92	333	G	R
6527	40:41:24.25	-123:52:11.35	377	G	S
6528	40:41:22.78	-123:52:24.20	408	G	R
6529	40:41:43.12	-123:52:32.27	522	G	S
6530	40:41:57.91	-123:52:37.63	632	G	R
6531	40:41:59.71	-123:52:55.31	716	D	S
6532	40:42:01.19	-123:53:10.50	750	D	R
6533	40:42:18.07	-123:53:21.98	771	D	S
6534	40:42:38.81	-123:53:30.05	811	D	R
6535	40:42:49.43	-123:53:42.72	641	D	S
6536	40:42:49.86	-123:53:56.69	889	D	R
6537	40:42:48.17	-123:54:13.75	850	D	S
6536	40:42:47.86	-123:54:29.38	615	D	R
6539	40:42:43.85	-123:54:48.19	796	D	S
6540	40:42:43.70	-123:55:00.52	632	D	R
6541	40:42:43.09	-123:55:15.67	823	D	S
6542	40:42:55.44	-123:55:28.81	817	D	R
6543	40:43:08.29	-123:55:40.37	829	D	S
6544	40:43:05.12	-123:55:56.46	808	D	R
6545	40:43:10.74	-123:56:08.59	808	D	S
6546	40:43:13.40	-123:56:24.36	812	D	R
6547	40:43:29.03	-123:56:34.60	850	D	S
6548	40:44:12.70	-123:56:37.68	780	D	R
6549	40:44:17.48	-123:56:50.75	762	D	S
6550	40:44:24.68	-123:57:05.00	733	D	R
6551	40:44:22.38	-123:57:21.56	707	D	S
6552	40:44:33.00	-123:57:34.52	683	D	R
6553	40:44:43.15	-123:57:48.62	670	D	S
6554	40:44:51.14	-123:57:58.61	677	D	R
6555	40:44:54.10	-123:58:12.32	889	D	S
6556	40:44:55.79	-123:56:27.41	686	D	R
6557	40:45:02.30	-123:56:40.55	883	D	S
6558	40:45:04.79	-123:56:55.52	686	D	R
6559	40:45:15.70	-123:59:07.33	661	D	S
6560	40:45:25.36	-123:59:20.29	661	D	R

Table 3 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevatio (m)	GPS or digitised	Instrumen type
6561	40:45:34.78	-123:59:32.42	658	D	S
6562	40:45:50.90	-123:59:46.36	616	G	S
6565	40:45:35.24	-124:00:27.22	428	G	S
6566	40:45:36.47	-124:00:36.43	405	G	S

TABLE 4
Station locations (latitude and longitude), elevations (m) and instrument type (R = REFTEK, S = SGR, E = PRS-1, E3 = PRS-4 and B = blank (no instrument was put at this location)) for the stations on Line 9. Locations determined from GPS data are marked G, and from digitised data, D.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
8998	39:09:33.05	-122:51:48.13	446	G	E
8999	39:09:41.04	-122:52:01.67	463	G	B
9000	39:09:53.68	-122:52:17.11	440	G	E
9001	39:10:06.28	-122:52:30.58	431	G	B
9002	39:10:14.68	-122:52:47.10	425	G	E
9003	39:10:24.13	-122:53:08.95	447	G	B
9004	39:10:16.79	-122:54:18.65	441	G	E
9005	39:10:37.06	-122:54:08.59	415	D	B
9006	39:10:52.97	-122:54:07.09	417	D	E
9007	39:11:09.58	-122:54:00.18	418	D	E
9008	39:11:27.35	-122:53:59.70	421	D	E
9009	39:11:43.87	-122:53:49.13	424	D	E
9010	39:11:57.37	-122:53:53.68	430	D	E
9011	39:12:07.49	-122:54:10.22	428	D	E
9012	39:12:19.44	-122:54:22.00	430	D	E
9013	39:12:31.39	-122:54:33.37	430	D	E
9014	39:12:28.30	-122:55:31.58	430	D	E
9015	39:12:38.12	-122:55:48.42	439	D	E
9016	39:12:51.77	-122:55:58.01	430	D	E
9017	39:13:01.99	-122:58:04.27	445	D	E
9018	39:13:14.05	-122:58:17.20	448	D	E
9019	39:13:22.40	-122:58:24.65	440	G	E
9020	39:13:33.17	-122:58:34.87	448	D	E
9021	39:13:46.78	-122:56:38.69	448	D	E
9022	39:14:01.18	-122:58:47.15	450	D	E
9023	39:14:16.04	-122:56:46.21	450	D	E
9024	39:14:31.24	-122:56:51.97	450	D	E
9025	39:14:44.45	-122:57:01.48	451	D	E
9026	39:14:57.55	-122:57:10.26	453	D	E
9027	39:15:18.22	-122:56:54.10	463	D	E
9028	39:15:58.68	-122:55:42.60	716	D	E
9029	39:16:17.51	-122:55:26.33	811	D	E
9030	39:16:33.74	-122:55:24.56	936	D	E
9031	39:16:45.06	-122:55:38.30	1036	D	E
9032	39:17:01.72	-122:55:32.56	1122	D	E
9033	39:17:18.69	-122:55:32.95	1146	D	E
9034	39:17:33.72	-122:55:28.92	1148	D	E
9035	39:17:49.49	-122:55:30.14	1122	D	E
9036	39:18:00.94	-122:55:42.67	1113	D	E
9037	39:18:12.20	-122:55:55.38	1126	D	E
9038	39:18:24.19	-122:56:05.17	1098	D	E
9039	39:18:34.83	-122:58:21.05	1137	D	E
9040	39:18:45.47	-122:56:34.90	1157	D	E
9041	39:18:57.78	-122:58:45.71	1152	D	E
9042	39:19:14.84	-122:58:39.26	1067	D	E
9043	39:19:26.72	-122:58:52.58	1052	D	E
9044	39:19:38.21	-122:57:07.02	1023	D	E
9045	39:19:50.59	-122:57:15.30	1042	D	E
9046	39:20:02.90	-122:57:23.65	1049	D	E
9047	39:20:18.20	-122:57:25.58	1052	D	E
9048	39:20:31.31	-122:57:33.30	1030	D	E
9049	39:20:42.90	-122:57:42.59	1027	D	E
9050	39:20:50.64	-122:58:09.34	1085	D	E
9051	39:21:01.76	-122:58:23.84	1088	D	E
9052	39:21:18.58	-122:58:44.26	1082	G	E
9053	39:21:28.37	-122:58:58.91	1072	G	E
9054	39:21:33.98	-122:59:21.26	1091	G	E
9055	39:21:48.02	-122:59:27.53	1011	G	E
9056	39:22:05.34	-122:59:24.72	984	G	E
9057	39:22:20.32	-122:59:24.68	990	G	E
9058	39:22:38.35	-122:59:21.26	977	G	E
9059	39:23:02.22	-122:59:00.96	932	D	E
9060	39:23:20.36	-122:58:44.83	878	G	E
9061	39:23:52.87	-122:57:33.44	724	G	E
9062	39:24:08.96	-122:57:37.84	667	G	E3
9063	39:24:12.53	-122:58:10.34	610	D	E
9064	39:24:26.50	-122:58:23.48	578	G	E3
9065	39:24:35.14	-122:58:45.12	525	G	E
9066	39:24:54.29	-122:58:25.61	526	G	E3
9067	39:25:06.92	-122:58:38.17	517	G	E
9068	39:25:21.07	-122:58:40.44	535	G	E3
9069	39:25:37.20	-122:58:37.45	541	G	E
9070	39:25:58.24	-122:58:24.02	586	G	E3
9071	39:26:06.22	-122:59:27.95	629	G	E
9072	39:26:31.49	-122:59:12.97	590	G	E3
9073	39:26:47.33	-122:58:10.38	568	D	E
9074	39:28:16.28	-122:53:50.50	1116	D	E3
9075	39:28:26.18	-122:54:10.15	1187	D	E
9076	39:28:37.02	-122:54:19.51	1184	D	E3
9077	39:28:46.63	-122:54:44.50	1177	D	E
9078	39:28:57.50	-122:55:14.52	1258	G	E3
9079	39:29:09.67	-122:55:19.70	1313	G	E
9080	39:29:21.05	-122:55:30.25	1392	G	E3
9081	39:29:34.98	-122:55:42.42	1461	G	E
9082	39:29:47.87	-122:55:49.96	1475	G	E3
9083	39:29:58.85	-122:58:01.82	1546	G	E
9084	39:30:07.96	-122:58:11.94	1578	G	E3
9085	39:30:25.45	-122:58:10.07	1690	G	E
9086	39:30:39.31	-122:58:17.52	1790	G	E3
9087	39:30:53.96	-122:58:20.47	1896	G	E
9088	39:31:17.65	-122:58:20.15	1976	G	E3
9089	39:31:32.99	-122:58:33.65	1958	G	E
9090	39:31:41.58	-122:56:48.95	1948	G	E3
9091	39:31:58.91	-122:58:53.63	1970	G	E
9092	39:32:11.90	-122:57:01.87	1965	G	E3
9093	39:32:25.51	-122:57:05.29	1947	G	S
9094	39:32:37.21	-122:57:17.68	1905	G	E3
9095	39:32:51.11	-122:57:21.10	1687	G	S
9096	39:32:17.83	-122:57:28.58	1797	G	E3
9097	39:33:25.92	-122:57:18.29	1754	G	S
9098	39:33:42.90	-122:57:04.54	1715	G	E3
9099	39:34:05.30	-122:58:39.68	170	G	S
9100	39:34:25.97	-122:58:21.05	1758	G	E3
9101	39:34:41.12	-122:58:26.84	1813	G	S
9102	39:34:55.96	-122:58:30.96	1835	G	R
9103	39:35:05.75	-122:56:43.12	1831	G	S
9104	39:35:18.82	-122:58:58.34	1884	G	R
9105	39:35:47.00	-122:57:23.44	1903	G	S
9105	39:35:51.36	-122:57:29.23	1890	G	R
9107	39:35:57.82	-122:57:48.24	1903	G	S
9108	39:35:57.05	-122:58:06.35	1689	G	R
9109	39:38:14.33	-122:58:29.21	1890	G	S

Table 4 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type		Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
9110	39:36:21.92	-122:58:36.84	1908	G	R		9166	39:48:50.58	-123:04:36.66	514	G	R
9111	39:36:39.02	-122:57:52.99	1935	G	S		9167	39:49:04.48	-123:04:48.32	532	G	S
9112	39:37:24.56	-122:58:24.53	1911	D	R		9168	39:49:21.58	-123:05:03.80	487	G	R
9113	39:36:03.35	-122:58:36.96	1885	D	S		9169	39:49:28.96	-123:04:58.73	451	G	S
9114	39:35:07.04	-122:59:02.40	1865	D	R		9170	39:49:32.52	-123:06:00.90	461	G	R
9115	39:33:38.81	-122:59:14.68	1796	D	S		9171	39:49:31.62	-123:06:33.62	472	G	S
9116	39:37:41.09	-122:59:22.09	1750	D	R		9172	39:49:16.54	-123:06:07.48	441	G	R
9117	39:37:55.56	-122:59:24.54	1716	D	S		9173	39:49:24.31	-123:06:19.61	450	G	S
9118	39:38:12.80	-122:59:21.30	1676	D	R		9174	39:49:41.02	-123:08:31.85	449	G	R
9119	39:38:28.48	-122:59:19.00	1666	D	S		9175	39:49:59.58	-123:06:37.68	455	G	S
9120	39:38:42.25	-122:59:14.78	1676	D	R		9176	39:50:07.40	-123:08:42.58	463	D	R
9121	39:38:53.99	-122:59:18.06	1681	D	S		9177	39:50:11.22	-123:09:19.08	472	D	S
9122	39:39:07.81	-122:59:18.96	1679	D	R		9178	39:49:59.41	-123:10:50.68	441	G	R
9123	39:39:23.65	-122:59:23.71	1721	D	S		9179	39:50:13.45	-123:10:50.30	453	G	S
9124	39:39:46.69	-122:59:03.84	1873	D	R		9180	39:50:28.07	-123:10:59.09	448	G	R
9125	39:40:03.90	-122:58:57.32	1628	D	S		9181	39:50:43.26	-123:11:00.28	457	G	S
9126	39:40:23.20	-122:58:44.80	1597	D	R		9162	39:50:51.29	-123:11:23.84	462	G	R
9127	39:40:46.96	-122:58:19.27	1719	D	S		9183	39:51:03.17	-123:11:36.74	501	G	S
9128	39:40:59.12	-122:58:30.07	1696	D	R		9184	39:51:22.90	-123:11:37.25	579	G	R
9129	39:41:10.86	-122:58:37.99	1677	G	S		9185	39:51:32.94	-123:11:36.74	638	G	S
9130	39:41:24.22	-122:58:47.17	1666	G	R		9186	39:51:44.89	-123:11:44.92	703	G	R
9131	39:41:36.13	-122:58:59.34	1703	G	S		9187	39:52:03.43	-123:11:38.26	762	D	S
9132	39:41:49.56	-122:59:11.65	1729	G	R		9188	39:52:16.48	-123:11:48.36	805	D	R
9133	39:42:02.95	-122:59:30.52	1733	G	S		9189	39:52:24.20	-123:12:12.08	835	D	S
9134	39:42:14.15	-122:59:38.44	1736	G	R		9190	39:52:35.00	-123:12:24.01	858	G	R
9135	39:42:25.20	-122:59:51.29	1693	G	S		9191	39:52:32.99	-123:13:19.63	870	G	S
9136	39:42:43.34	-123:00:13.46	1679	G	R		9192	39:52:39.65	-123:13:47.10	854	G	R
9137	39:42:49.79	-123:00:04.32	1627	G	S		9193	39:52:48.00	-123:14:17.36	859	G	S
9138	39:43:03.32	-123:00:14.11	1606	G	R		9194	39:52:52.79	-123:14:51.07	863	G	R
9139	39:43:13.73	-123:00:32.58	1609	G	S		9195	39:53:06.74	-123:14:54.96	842	G	S
9140	39:43:23.16	-123:00:50.96	1840	D	R		9196	39:53:07.87	-123:15:32.83	830	G	R
9141	39:43:29.03	-123:01:23.27	1679	G	S		9197	39:53:01.86	-123:16:48.31	902	G	S
9142	39:43:37.96	-123:01:31.89	1689	D	R		9196	39:53:15.68	-123:16:54.66	923	G	R
9143	39:43:40.87	-123:01:54.70	1648	G	S		9199	39:53:27.02	-123:17:08.41	934	G	S
9144	39:43:50.34	-123:01:58.80	1818	G	R		9200	39:53:41.75	-123:17:14.21	922	G	R
9145	39:44:02.94	-123:02:07.37	1572	G	S		9201	39:53:54.35	-123:17:29.65	893	G	S
9146	39:44:20.36	-123:02:11.83	1533	D	R		9202	39:53:48.73	-123:17:50.42	866	G	R
9147	39:44:27.96	-123:02:26.95	1468	G	S		9203	39:54:13.50	-123:18:13.18	899	G	S
9146	39:44:34.15	-123:02:40.67	1448	G	R		9204	39:54:24.84	-123:18:24.70	907	G	R
9149	39:44:45.13	-123:02:46.75	1442	G	S		9205	39:54:37.30	-123:18:31.18	907	G	S
9150	39:44:56.04	-123:02:57.96	1456	G	R		9206	39:54:49.64	-123:18:39.96	918	G	R
9151	39:45:11.66	-123:03:11.92	1480	G	S		9207	39:55:03.58	-123:18:44.50	938	G	S
9152	39:45:20.74	-123:03:25.52	1482	G	R		9206	39:55:22.30	-123:18:37.12	986	G	R
9153	39:45:27.54	-123:03:51.41	1399	G	S		9209	39:55:35.69	-123:18:32.80	1018	G	S
9154	39:45:47.63	-123:04:06.76	1338	G	R		9210	39:55:56.82	-123:18:11.27	961	G	R
9155	39:48:02.93	-123:04:23.59	1304	G	S		9211	39:58:13.56	-123:18:04.57	933	G	S
9156	39:48:23.05	-123:04:25.18	1282	G	R		9212	39:56:38.65	-123:17:20.15	901	G	R
9157	39:48:34.97	-123:04:57.83	1256	G	S		9213	39:57:01.40	-123:17:06.40	903	G	S
9156	39:48:52.14	-123:05:03.84	1196	G	R		9214	39:57:30.28	-123:16:25.21	910	G	R
9158	39:48:49.37	-123:05:13.16	1173	D	S		9215	39:58:01.45	-123:15:41.08	769	G	S
9160	39:47:00.20	-123:05:26.56	1171	G	R		9218	39:58:19.52	-123:15:34.49	802	G	R
9161	39:47:14.46	-123:05:33.11	1143	G	S		9217	39:58:34.32	-123:15:34.09	771	G	S
9182	39:47:37.90	-123:05:01.14	1097	G	R		9218	39:56:46.60	-123:15:45.81	718	G	R
9163	39:47:49.08	-123:04:55.99	866	G	S		9219	39:59:00.96	-123:15:49.43	674	D	S
9184	39:47:45.20	-123:04:05.27	734	G	R		9220	39:59:13.81	-123:15:57.82	634	D	R
9165	39:48:38.02	-123:04:30.56	591	D	S		9221	39:59:26.84	-123:16:06.24	588	D	S

Table 4 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type		Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
9222	39:59:41.96	-123:16:07.68	549	D	R		9278	40:13:09.84	-123:20:44.59	1169	G	R
9223	39:59:53.66	-123:16:19.24	506	D	S		9279	40:13:24.06	-123:20:20.87	1128	G	S
9224	40:00:10.66	-123:16:15.10	407	G			9280	40:13:29.82	-123:20:24.22	1135	G	R
9225	40:00:29.27	-123:16:05.88	428	G	S		9281	40:13:34.18	-123:20:30.23	1144	G	S
9226	40:01:00.23	-123:15:13.93	875	G	R		9282	40:13:30.47	-123:21:09.14	1128	G	R
9227	40:01:14.27	-123:15:12.89	925	G	S		9283	40:13:51.35	-123:20:33.47	1116	G	S
9228	40:01:35.51	-123:14:57.30	1028	D	R		9284	40:14:05.89	-123:21:07.88	1092	G	R
9229	40:01:52.28	-123:14:51.29	1023	G	S		9285	40:14:33.61	-123:20:19.46	985	G	S
9230	40:02:12.01	-123:14:39.77	1067	G	R		9286	40:15:16.31	-123:19:04.84	833	G	R
9231	40:02:19.72	-123:15:01.94	1079	G	S		9287	40:15:32.87	-123:19:01.92	830	G	S
9232	40:02:34.44	-123:15:06.34	1065	G	R		9288	40:15:48.38	-123:19:02.46	831	G	R
9233	40:02:53.20	-123:15:04.88	1036	G	S		9289	40:16:00.12	-123:19:07.64	828	G	S
9234	40:02:48.70	-123:16:09.84	933	G	R		9290	40:16:12.47	-123:19:16.97	829	G	R
9235	40:02:54.42	-123:16:29.64	972	G	S		9291	40:16:21.90	-123:19:26.44	835	G	S
9236	40:03:11.63	-123:16:31.46	993	G	R		9292	40:16:34.50	-123:19:40.37	825	G	R
9237	40:03:26.46	-123:16:32.45	988	D	S		9293	40:16:48.22	-123:19:45.01	821	G	S
9238	40:03:41.15	-123:16:15.84	814	D	R		9294	40:17:02.72	-123:19:52.81	830	G	R
9239	40:04:00.12	-123:16:18.37	732	D	S		9295	40:17:08.27	-123:20:14.24	927	G	S
9240	40:04:21.76	-123:16:11.17	622	D	R		9296	40:17:25.06	-123:20:17.99	921	G	R
9241	40:04:27.23	-123:16:43.36	744	D	S		9297	40:17:37.36	-123:20:22.06	815	G	S
9242	40:06:10.44	-123:12:08.39	811	D	R		9296	40:17:48.37	-123:20:46.75	813	G	R
9243	40:06:19.46	-123:12:27.50	896	D	S		9299	40:17:59.96	-123:21:05.90	826	D	S
9244	40:06:18.58	-123:13:25.07	914	D	R		9300	40:18:15.73	-123:21:04.82	826	D	R
9245	40:06:14.18	-123:13:49.12	1345	G	S		9301	40:18:25.92	-123:21:26.32	828	D	S
9246	40:06:39.17	-123:13:44.82	1349	G	R		9302	40:18:36.43	-123:21:35.93	823	D	R
9247	40:06:52.49	-123:13:54.19	1386	G	S		9303	40:18:46.87	-123:21:53.93	835	D	S
9248	40:07:04.98	-123:13:57.18	1408	G	R		9304	40:18:54.97	-123:22:13.37	823	D	R
9249	40:07:19.96	-123:13:58.50	1370	G	S		9305	40:18:56.02	-123:23:02.98	826	D	S
9250	40:07:45.88	-123:13:21.54	1341	G	R		9306	40:18:52.83	-123:23:39.84	872	G	R
9251	40:06:12.55	-123:13:06.33	1220	G	S		9307	40:19:11.93	-123:23:51.97	934	G	S
9252	40:06:24.29	-123:13:11.17	1162	G	R		9308	40:19:24.49	-123:24:00.54	936	G	R
9253	40:08:33.40	-123:13:24.64	1117	G	S		9309	40:19:29.46	-123:23:59.21	951	G	S
9254	40:08:48.82	-123:13:23.92	1091	G	R		9310	40:19:48.11	-123:24:14.94	932	G	R
9255	40:09:03.28	-123:13:20.93	1067	G	S		9311	40:19:53.87	-123:24:55.58	881	G	S
9258	40:09:16.09	-123:13:33.85	1010	G	R		9312	40:20:06.58	-123:25:04.48	840	G	R
9257	40:09:35.46	-123:13:45.06	940	G	S		9313	40:20:20.36	-123:25:13.48	866	G	S
9258	40:09:42.80	-123:13:44.22	890	G	R		9314	40:20:37.72	-123:25:12.76	875	G	R
9259	40:09:43.49	-123:13:41.59	890	G	S		9315	40:20:43.40	-123:25:45.26	863	G	S
9260	40:09:18.88	-123:16:33.38	1122	G	R		9316	40:21:00.25	-123:25:38.14	872	G	R
9261	40:09:27.54	-123:16:56.10	1131	G	S		9317	40:21:10.26	-123:25:49.98	908	G	S
9262	40:09:51.12	-123:17:49.52	1188	G	R		9318	40:21:20.74	-123:26:06.36	908	D	R
9263	40:09:46.82	-123:17:36.49	1207	G	S		9319	40:21:35.71	-123:26:10.57	884	G	S
9264	40:10:28.63	-123:17:53.34	1179	G	R		9320	40:21:54.97	-123:25:53.11	837	G	R
8265	40:10:10.78	-123:18:00.14	1176	G	S		9321	40:22:10.81	-123:25:53.76	826	D	S
9266	40:10:40.98	-123:18:24.34	1192	G	R		9322	40:22:24.28	-123:26:06.12	786	G	R
9267	40:10:49.22	-123:18:05.47	1176	G	S		9323	40:22:33.78	-123:26:25.19	782	G	S
9266	40:10:59.99	-123:18:39.67	1184	G	R		9324	40:22:44.83	-123:26:29.15	781	G	R
9269	40:11:02.22	-123:18:30.35	1097	D	S		9325	40:22:55.31	-123:26:40.09	777	G	S
9270	40:11:16.73	-123:18:40.50	1018	G	R		9326	40:22:54.06	-123:26:56.15	775	G	R
9271	40:11:22.67	-123:18:49.72	1019	G	S		9327	40:23:23.35	-123:27:04.50	775	G	S
9272	40:11:39.55	-123:19:04.84	1009	D	R		9328	40:23:07.33	-123:28:53.65	1254	G	R
9273	40:11:31.85	-123:19:29.75	1094	G	S		9329	40:23:17.45	-123:29:06.79	1282	G	S
9274	40:11:42.68	-123:19:57.61	1106	G	R		9330	40:23:27.92	-123:29:21.52	1274	D	R
9275	40:12:07.49	-123:20:01.90	1152	D	S		9331	40:23:41.82	-123:29:27.13	1271	D	S
9276	40:12:18.07	-123:20:22.27	1158	G	R		9332	40:23:57.66	-123:29:28.03	1313	G	R
9277	40:12:31.97	-123:20:29.54	1137	G	S		9333	40:24:06.57	-123:29:38.40	1313	G	S

Table 4 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type		Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
9334	40:24:28.58	-123:29:25.73	1176	G	R		9390	40:38:02.69	-123:34:25.93	1757	G	R
9335	40:24:43.99	-123:29:24.97	1185	G	S		9391	40:38:14.64	-123:34:34.97	1753	G	S
9336	40:25:03.68	-123:29:39.12	1116	G	R		9392	40:38:30.26	-123:34:42.20	1727	G	R
9337	40:25:13.26	-123:29:48.73	1081	G	S		9393	40:38:44.30	-123:34:47.68	1726	G	S
9336	40:25:24.42	-123:29:53.68	1087	G	R		9394	40:38:54.74	-123:35:00.74	1727	G	R
9339	40:25:37.16	-123:29:55.21	1063	G	S		9395	40:37:28.88	-123:38:01.79	1268	D	S
9340	40:25:51.49	-123:29:56.69	1062	G	R		9396	40:37:50.81	-123:37:41.27	1287	G	R
9341	40:26:04.92	-123:30:11.84	1013	G	S		9397	40:38:20.15	-123:38:00.42	1304	G	S
9342	40:26:15.72	-123:30:18.94	1019	G	R		9398	40:38:32.10	-123:38:11.87	1286	G	R
9343	40:26:28.90	-123:30:31.39	1031	G	S		9399	40:38:41.60	-123:38:11.47	1278	G	S
9344	40:26:40.42	-123:30:41.58	966	G	R		9400	40:39:24.52	-123:38:55.68	1280	G	R
9345	40:26:50.88	-123:30:53.24	1005	G	S		9401	40:39:10.44	-123:38:19.39	1280	G	S
9346	40:27:05.29	-123:30:56.77	946	G	R		9402	40:39:18.40	-123:38:01.10	1298	G	R
9347	40:27:12.64	-123:30:57.74	914	G	S		9403	40:38:59.64	-123:37:42.74	1320	G	S
9348	40:27:29.20	-123:31:27.41	859	G	R		9404	40:39:48.42	-123:38:05.68	1320	D	S
9349	40:28:42.20	-123:28:15.17	1606	D	S		9405	40:40:04.87	-123:38:00.92	1314	D	S
9350	40:28:54.70	-123:26:29.28	1634	D	R		9406	40:40:11.96	-123:38:29.72	1335	G	S
9351	40:29:07.01	-123:28:41.99	1681	D	S		9407	40:39:51.23	-123:37:57.76	1350	G	S
9352	40:29:17.05	-123:26:57.36	1664	D	R		9406	40:39:36.36	-123:40:45.23	1335	G	S
9353	40:29:24.79	-123:29:18.64	1664	D	S		9409	40:40:17.26	-123:40:37.81	1359	D	S
9354	40:29:37.36	-123:29:31.09	1682	D	R		9410	40:40:13.51	-123:40:42.87	1378	G	S
9355	40:29:51.83	-123:29:34.80	1689	D	S		9411	40:40:45.52	-123:40:55.36	1414	G	S
9356	40:30:03.35	-123:29:41.75	1700	D	R		9412	40:40:48.40	-123:41:12.41	1398	G	S
9357	40:30:16.06	-123:29:48.62	1690	D	S		9413	40:40:59.77	-123:41:32.99	1443	G	S
9358	40:29:51.79	-123:29:34.06	1686	G	R		9414	40:41:13.13	-123:41:47.29	1466	D	S
9359	40:30:04.88	-123:29:43.62	1691	G	S		9415	40:41:30.64	-123:41:44.30	1497	G	S
9360	40:30:21.89	-123:29:52.55	1664	G	R		9416	40:41:44.92	-123:41:39.44	1494	G	S
9361	40:31:12.22	-123:30:07.78	1698	D	S		9417	40:41:57.91	-123:41:56.76	1397	G	S
9362	40:30:50.22	-123:30:05.62	1698	G	R		9418	40:42:11.68	-123:42:07.34	1397	G	S
9363	40:31:08.65	-123:30:07.42	1687	G	S		9419	40:42:24.80	-123:42:03.80	1355	G	S
9364	40:31:22.37	-123:30:08.82	1679	G	R		9420	40:42:52.42	-123:41:48.98	1252	G	S
9365	40:31:41.30	-123:30:22.61	1642	G	S		9421	40:43:03.25	-123:41:48.64	1247	D	S
9366	40:32:03.52	-123:30:27.00	1620	G	R		9422	40:43:18.77	-123:41:46.79	1245	D	S
9367	40:32:37.90	-123:30:38.12	1555	D	S		9423	40:43:33.74	-123:41:49.18	1237	D	S
9368	40:32:48.12	-123:30:39.28	1552	G	R		9424	40:43:48.61	-123:41:49.27	1239	D	S
9369	40:33:08.68	-123:30:51.95	1571	G	S		9425	40:44:06.76	-123:41:40.63	1232	D	S
9370	40:33:14.22	-123:30:59.80	1553	G	R		9426	40:44:26.56	-123:41:26.30	1274	D	S
9371	40:33:29.63	-123:31:30.86	1588	G	S		9427	40:44:41.39	-123:41:31.52	1295	D	S
9372	40:33:44.10	-123:31:19.42	1603	G	R		9428	40:44:53.30	-123:41:38.47	1298	D	E
9373	40:33:54.43	-123:31:29.03	1597	D	S		9429	40:45:12.02	-123:41:34.22	1298	D	E
9374	40:34:06.18	-123:31:40.48	1619	G	R		9430	40:45:25.56	-123:41:40.31	1305	D	E
9375	40:34:25.21	-123:31:54.84	1640	G	S		9431	40:45:52.42	-123:41:02.65	1469	D	E
9376	40:34:56.08	-123:32:06.90	1652	G	R		9432	40:46:11.53	-123:40:52.54	1536	D	E
9377	40:34:52.54	-123:32:16.94	1899	G	S		9433	40:48:28.42	-123:40:48.32	1536	D	E
9378	40:35:07.98	-123:32:26.63	1706	G	R		9434	40:48:45.95	-123:40:42.78	1580	D	E
9379	40:35:23.39	-123:32:30.16	1710	G	S		9435	40:47:00.42	-123:40:47.71	1582	D	E
9360	40:35:39.62	-123:32:37.14	1721	G	R		9436	40:47:11.96	-123:40:59.27	1582	D	E
9361	40:35:56.44	-123:32:55.57	1723	G	S		9437	40:47:23.68	-123:41:11.22	1588	D	E
9362	40:38:11.68	-123:33:11.59	1753	G	R		9439	40:47:38.42	-123:41:20.18	1573	D	E
9383	40:38:28.06	-123:33:26.48	1779	G	S		9439	40:47:51.47	-123:41:21.62	1567	D	E
9384	40:38:03.02	-123:33:41.04	1753	G	R		9440	40:48:06.62	-123:41:17.30	1567	D	E
9385	40:38:50.80	-123:34:04.26	1761	G	S		9441	40:48:21.53	-123:41:23.93	1567	D	E
9386	40:37:11.10	-123:33:54.61	1793	G	R		9442	40:48:33.12	-123:41:37.25	1565	D	E
9367	40:37:25.39	-123:34:03.18	1785	G	S		9443	40:48:47.34	-123:41:40.80	1512	D	E
9386	40:37:38.89	-123:34:10.88	1757	G	R		9444	40:49:00.62	-123:41:47.62	1484	D	E
9369	40:37:50.70	-123:34:19.70	1729	G	S		9445	40:49:15.13	-123:41:51.54	1457	D	E

Table 4 contd.

Station number	Latitude deg:min:sec	Longitude deg:min:sec	Elevation (m)	GPS or digitised	Instrument type
9446	40:49:28.02	-123:41:58.96	1445	D	E
9447	40:49:42.31	-123:42:02.41	1439	D	E
9448	40:49:55.20	-123:42:15.44	1442	D	E
9449	40:50:04.99	-123:42:31.28	1469	D	E
9450	40:50:13.06	-123:42:56.09	1490	D	E
9451	40:50:24.04	-123:43:10.74	1466	D	E
9452	40:50:37.75	-123:43:15.71	1451	D	E
9453	40:50:49.85	-123:43:27.37	1416	D	E
9454	40:51:04.43	-123:43:29.93	1439	D	E
9455	40:51:19.55	-123:43:31.40	1472	D	E
9456	40:51:31.10	-123:43:42.60	1475	D	E
9457	40:51:45.97	-123:43:46.70	1472	D	E
9459	40:51:52.49	-123:44:15.76	1317	D	E
9459	40:52:04.30	-123:44:27.49	1241	D	E
9460	40:52:11.64	-123:44:54.35	1193	D	E
9461	40:52:17.04	-123:45:05.90	1152	D	E
9462	40:52:30.65	-123:45:14.87	1103	D	E
9463	40:52:44.29	-123:45:25.38	988	D	E
9464	40:52:51.78	-123:45:56.52	914	D	E
9465	40:53:01.92	-123:46:12.94	914	D	E
9466	40:53:17.30	-123:46:12.97	875	D	E
9467	40:53:35.05	-123:46:04.19	853	D	E
9466	40:53:47.62	-123:46:16.57	853	D	E
9469	40:53:59.32	-123:46:31.33	641	D	E
9470	40:54:10.22	-123:46:47.75	805	D	E
9471	40:54:24.08	-123:46:49.59	796	D	E
9472	40:54:35.50	-123:47:05.14	753	D	E
9473	40:54:48.17	-123:47:16.44	725	D	E
9474	40:55:03.90	-123:47:12.95	689	D	E
9475	40:55:19.06	-123:47:15.38	664	D	E
9476	40:55:31.04	-123:47:24.25	646	D	E
9477	40:55:33.82	-123:48:06.64	622	D	E
9478	40:55:16.28	-123:50:06.76	530	D	E
9479	40:55:32.16	-123:50:14.71	570	D	E
9480	40:55:40.22	-123:50:34.76	585	D	E
9481	40:55:55.20	-123:50:38.62	561	D	E
9482	40:56:06.11	-123:50:56.94	512	D	E
9463	40:56:29.06	-123:50:25.19	424	D	E
9464	40:56:43.33	-123:50:28.38	378	D	E
9465	40:57:01.22	-123:50:18.62	305	D	E
9486	40:57:20.09	-123:50:14.60	268	D	E
9467	40:57:33.68	-123:50:12.30	236	D	E
9466	40:57:47.74	-123:50:20.72	219	D	E
9469	40:57:59.72	-123:50:27.78	218	D	E
9490	40:58:16.21	-123:50:22.49	216	D	E
9491	40:58:28.02	-123:50:32.39	218	D	E
9492	40:56:43.79	-123:50:35.88	219	D	E
9493	40:56:57.50	-123:50:43.48	219	D	E
9494	40:59:09.31	-123:50:47.76	216	D	E
9495	40:59:18.67	-123:50:55.61	216	D	E
9496	40:59:29.26	-123:51:02.02	216	D	E
9497	40:59:40.27	-123:51:09.25	216	D	E
9496	40:59:52.94	-123:51:17.39	216	D	E
9499	41:00:04.93	-123:51:26.39	216	D	E
9500	41:00:16.74	-123:51:31.39	215	D	E
9501	41:00:30.82	-123:51:41.22	215	D	E
9502	41:00:44.57	-123:51:45.25	214	D	E
9503	41:00:58.39	-123:51:50.76	213	D	E
9504	41:01:11.06	-123:52:02.35	216	D	E
9505	41:01:20.35	-123:52:20.50	207	D	E
9506	41:01:36.44	-123:52:17.94	274	D	E
9507	41:01:54.16	-123:52:12.72	238	D	E
9508	41:02:09.67	-123:52:19.09	256	D	E
9509	41:02:21.70	-123:52:24.82	232	D	E
9510	41:02:38.15	-123:52:23.16	201	D	E
9511	41:02:56.06	-123:52:16.68	171	D	E
9512	41:03:11.59	-123:52:17.94	183	D	E
9513	41:03:25.92	-123:52:22.76	162	D	E
9514	41:03:45.76	-123:52:12.90	213	D	E
9515	41:03:57.85	-123:52:24.92	262	D	E
9516	41:04:16.18	-123:52:15.42	305	D	E
9517	41:04:34.79	-123:52:06.67	390	D	E
9518	41:04:54.28	-123:51:56.66	463	D	E
9519	41:05:17.81	-123:51:34.96	579	D	E
9520	41:05:52.44	-123:50:40.96	762	D	E
9521	41:06:06.44	-123:50:42.72	792	D	E
9522	41:06:19.62	-123:50:51.97	641	D	E
9523	41:06:30.78	-123:51:05.90	872	D	E
9524	41:06:49.10	-123:51:09.38	878	D	E
9525	41:07:00.44	-123:50:49.68	835	D	E
9526	41:07:20.71	-123:51:02.92	951	D	E
9527	41:07:34.72	-123:51:05.83	884	D	E
9528	41:07:47.50	-123:51:12.31	888	D	E
9529	41:07:58.90	-123:51:25.31	927	D	E
9530	41:08:14.60	-123:51:25.70	930	D	E
9531	41:06:27.53	-123:51:34.85	902	D	E
9532	41:06:36.71	-123:51:53.46	884	D	E
9533	41:06:49.38	-123:52:13.19	665	G	E
9534	41:09:48.84	-123:52:52.61	901	G	E
9535	41:09:52.15	-123:53:26.41	790	G	E
9536	41:09:06.68	-123:53:22.52	762	G	E
9537	41:09:25.45	-123:53:22.92	747	G	E
9538	41:09:38.79	-123:53:36.67	730	G	E
9539	41:09:43.60	-123:53:56.72	700	G	E
9540	41:09:51.52	-123:54:19.73	689	G	E
9541	41:09:56.21	-123:54:44.64	701	G	E
9542	41:10:07.72	-123:54:59.65	686	G	E
9543	41:10:22.48	-123:55:08.29	888	G	E
9544	41:10:38.91	-123:55:13.12	683	G	E
9545	41:10:47.82	-123:55:21.76	719	G	E
9546	41:11:03.01	-123:55:27.62	745	G	E
9547	41:11:15.07	-123:55:38.76	728	G	E
9548	41:11:25.19	-123:55:54.91	719	G	E
9549	41:11:33.40	-123:56:12.12	711	G	B
9550	41:11:44.48	-123:56:24.97	720	G	E
9551	41:11:57.62	-123:56:30.48	740	G	B
9552	41:12:12.42	-123:56:41.75	738	G	E
9553	41:12:21.38	-123:56:58.68	738	G	B
9554	41:12:32.18	-123:57:14.22	738	G	E
9555	41:12:45.68	-123:57:18.14	743	G	B
9556	41:13:01.99	-123:57:19.94	750	G	E

Table 5 - SEGY header positions

Bytes	Header value
1-4	trace sequence number within line (TRACENO)
9-12	original field record number (FFID)
13-16	trace number within the original field record (CHAN)
29-30	trace identification code (1 = seismic data) (TRC_TYPE)
33-34	number of horizontally summed traces (TR_FOLD)
37-40	distance from source to receiver (in metres) (OFFSET and AOFFSET)
41-44	receiver group elevation (in metres) (REC_ELEV)
45-48	surface elevation at source (in metres) (SOU_ELEV)
49-52	source depth below surface (in metres) (DEPTH)
69-70	scalar for source and receiver elevations
71-72	scalar for source and receiver coordinates
73-76	source x coordinate (SOU_X)
77-80	source y coordinate (SOU_Y)
81-84	receiver x coordinate (REC_X)
85-88	receiver y coordinate (REC_Y)
89-90	coordinates units (1 = metres, 2 = seconds of arc)
115-116	number of samples in this trace
117-118	sample interval in this trace
157-158	year recorded
159-160	day of year recorded
161-162	hour of day recorded
163-164	minute of hour recorded
165-166	second of minute recorded
167-168	time basis code (2 = GMT)
181-184	nearest surface location to source (SOU_SLOC)
185-188	receiver surface location number (REC_SLOC)
193-196	shotpoint (FFID)
197-198	component (12 = north-south, 13 = east-west) (COMP)
215-216	instrument type (1 = PRS-1, 7 = SGR, 9 = PRS-4, 13 = REFTEK) (INSTRU)

Table 6 - Positions and channel numbers of collocated instruments

			channel number		
Line number	latitude (deg:min:sec)	longitude (deg:min:sec)	PRS	REFTEK	SGR
1	39:37:48.43	-121:56:01.18	1126	1904	1903
1	39:34:33.38	-122:15:58.50	1208	1906	1905
6	40:25:41.63	-122:23:06.94	6160	6907	6906
6	40:28:59.95	-122:34:21.32	6208	6905	6904

Table 7 - Positions and channel numbers of SGR's at shotpoints

Line number	shotpoint	latitude (deg:min:sec)	longitude (deg:min:sec)	channel number
1	105	39:28:26.04	-122:53:39.73	1901
1	108	39:28:11.39	-123:44:52.01	1902
6	601	40:19:52.10	-121:43:45.30	6908
6	603	40:27:24.19	-122:34:09.66	6909
6	605	40:35:08.48	-123:05:42.29	6910
9	908	40:37:43.90	-123:38:50.53	9904
9	911	41:13:33.56	-123:56:40.92	9903
9	608	40:45:32.00	-124:01:03.58	9906

Table 8 - Summary of the shots recorded by the Bison reflection spread at Lake Pillsbury

shotpoint	delay time (s)	distance	size (kg)
101	16	135	1816
102	10	89	908
103	2	58.6	454
104	0	31.3	908
105	-2	6.5	454
106	-2	18.3	908
107	0	45.3	454
108	6	67.2	1816
902	-2	11.7	454
903	0	17.4	1816
904	0	37.6	454
905	6	61	1362
907	12	115.2	1362
908	18	142.4	454
107	second shot 0	45.3	???