



The result of surface wave method in the Coyote Creek borehole (Williams Park)

By Koichi Hayashi¹

This paper is an extract from

Asten, M.W., and Boore, D.M., eds., Blind comparisons of shear-wave velocities at closely spaced sites in San Jose, California: U.S. Geological Survey Open-File Report 2005-1169. [available on the World Wide Web at <http://pubs.usgs.gov/of/2005/1169/>].

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

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OYO Corporation
Koichi Hayashi

Data acquisition : Oct.17.2002

A) Multi-channel analysis of surface waves (MASW)

Geophone : 4.5Hz

Receiver spacing : 2m

Shot spacing : 2m

Bumber of receivers : 24

Number of shots : 25

B) Micro-tremor Array Measurement (MAM)

Geophone : 4.5Hz

Array size : 40m

Number of receivers : 10

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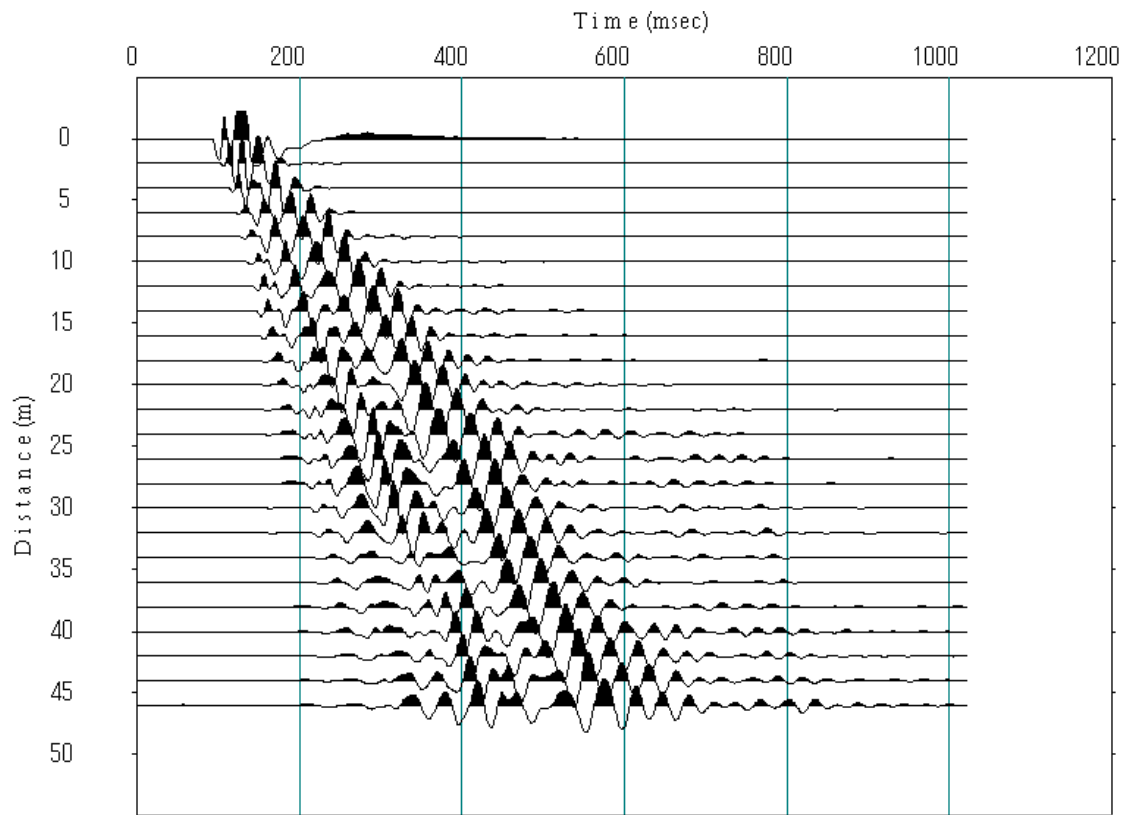
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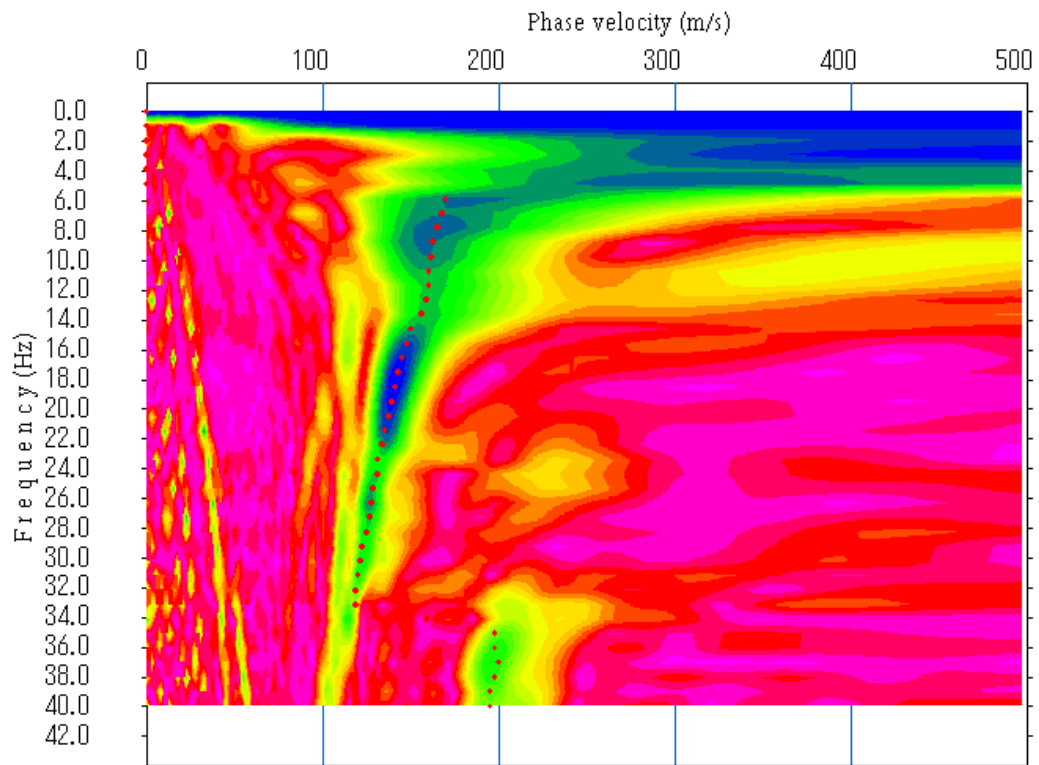
Fax : +81-298-51-5450

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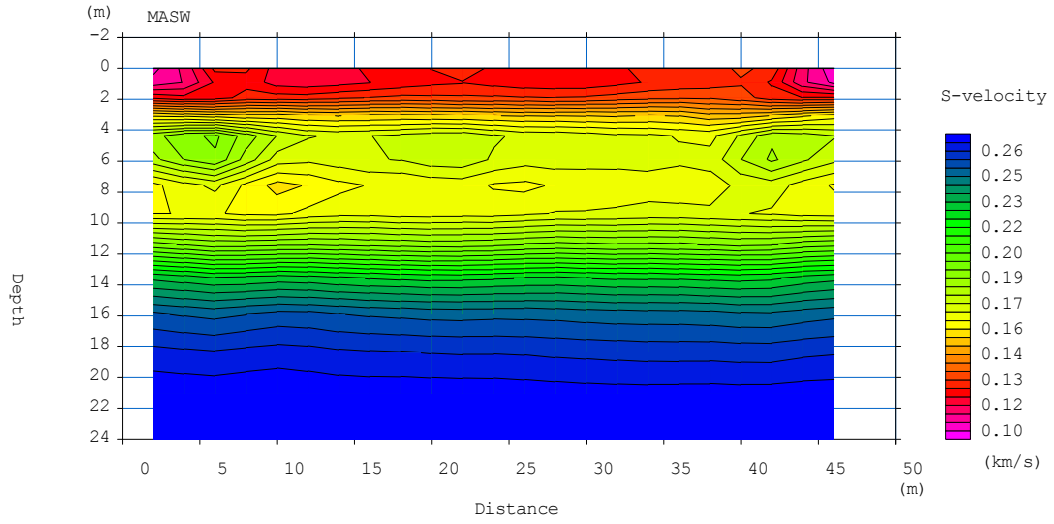
1. The example of waveform data from a MASW measurement.



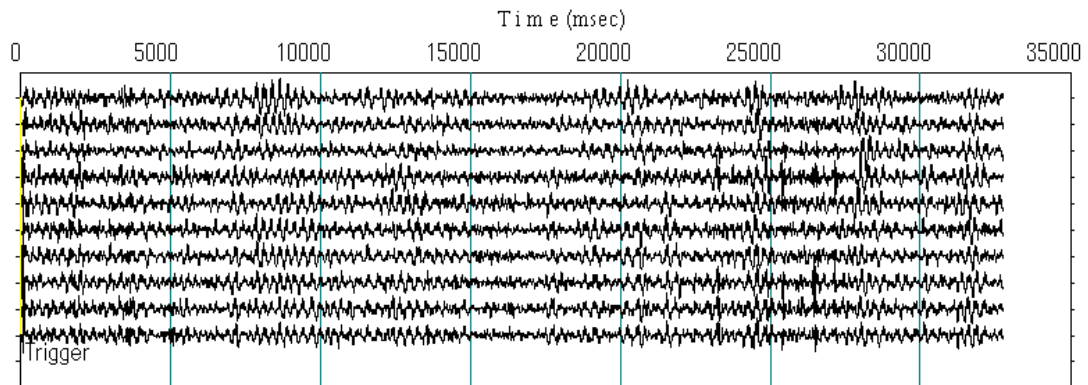
2. The example of phase-velocity image in frequency domain (MASW measurement).



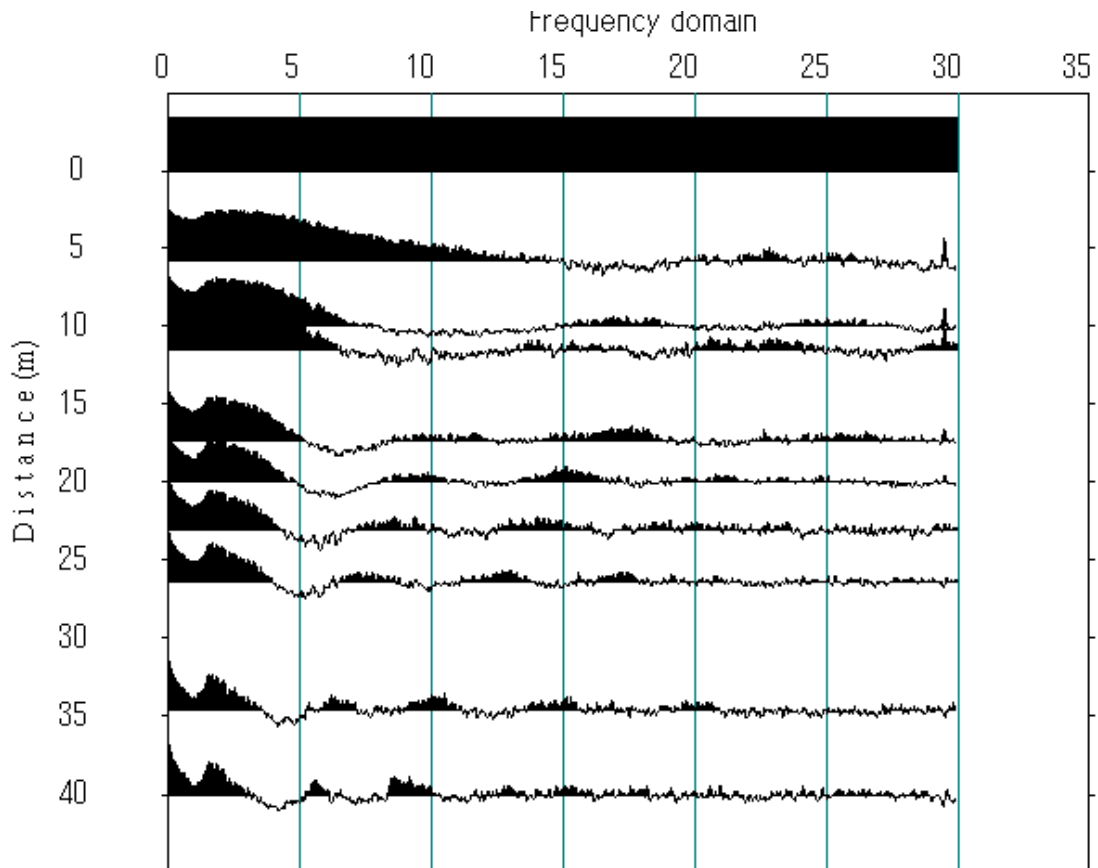
3. The result of MASW.



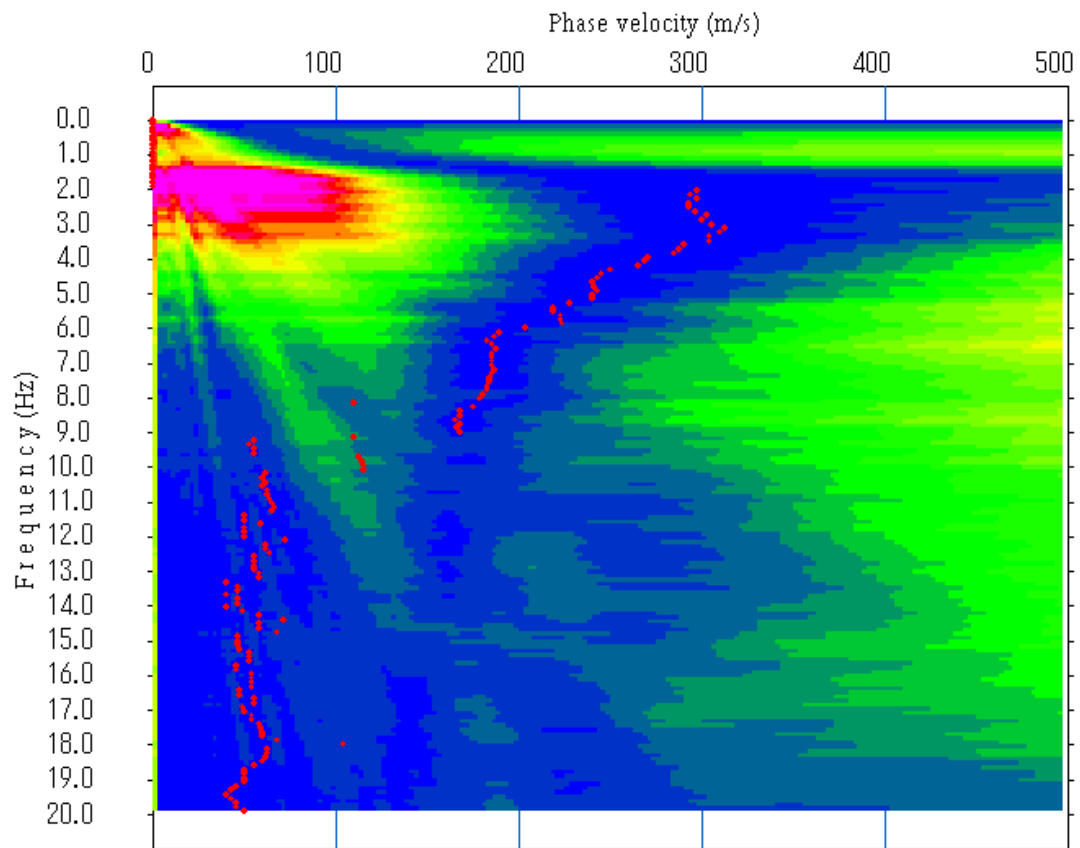
4. The example of waveform data from MAM measurement.



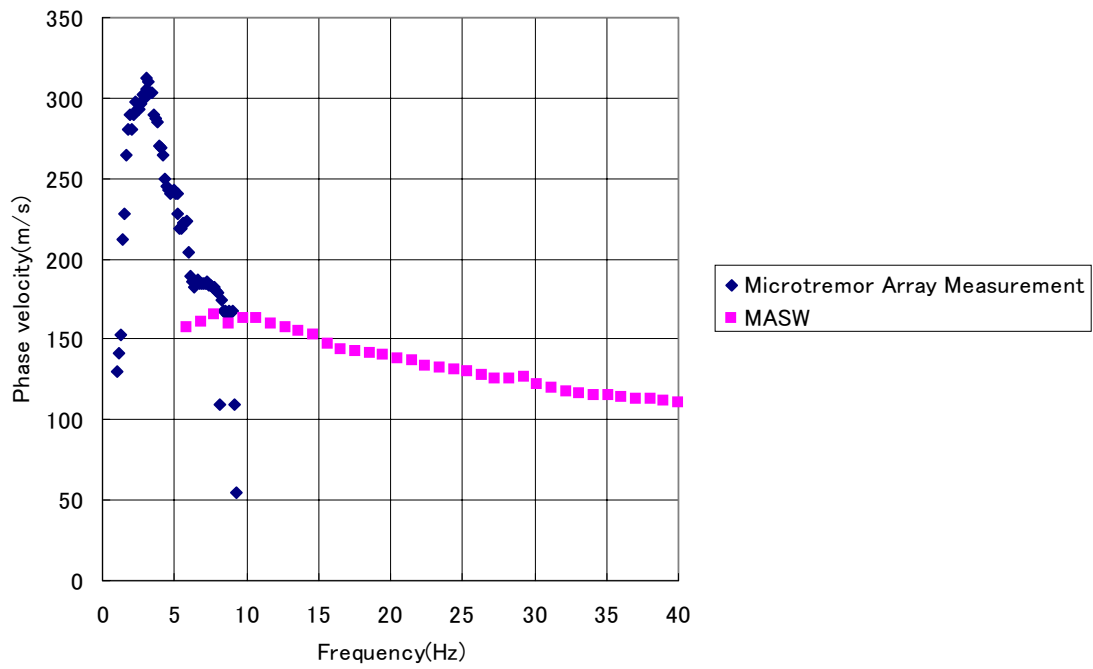
5. The example of coherence (SPAC) from MAM measurement.



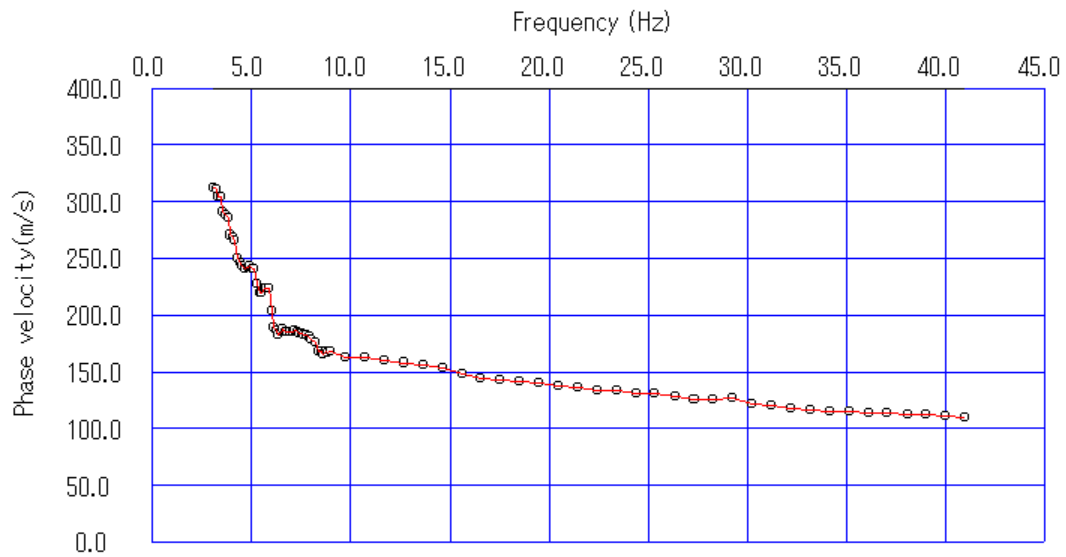
6. The example of phase-velocity image in frequency domain (MAM measurement).



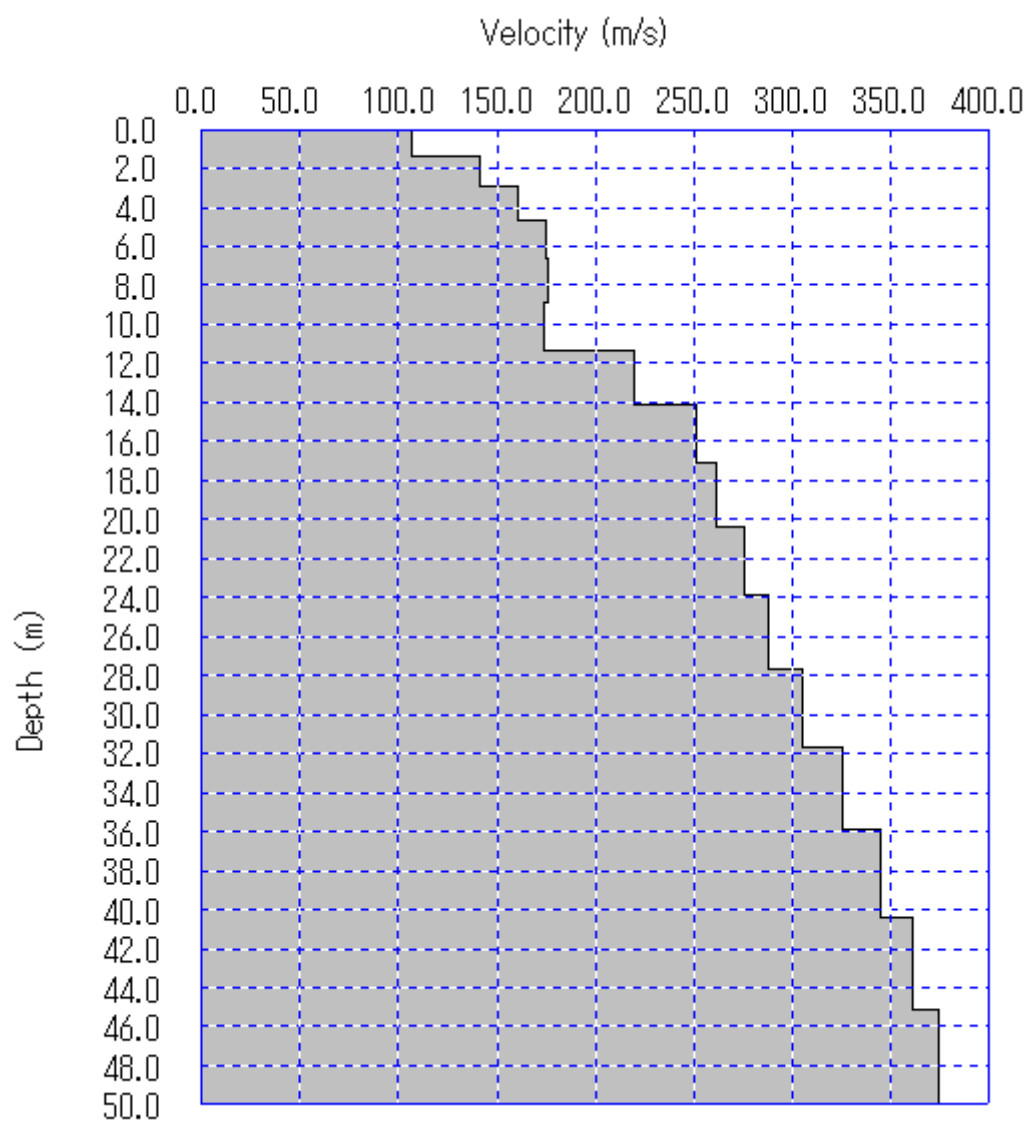
7. The comparison of phase-velocity curves obtained from MASW and MAM measurements.



8. Phase-velocity curve used in the MAM inversion. The curve consists of both MAM and MASW phase-velocity data.



9. S-velocity model obtained from the phase-velocity curve shown in Figure 8.



10. The comparison of observed (red line and black circles) and theoretical (black line) phase-velocity curves. Theoretical phase-velocity curve is calculated from the S-velocity model shown in Figure 9.

