

INTERNACIONAL CONFERENCE - SATREPS PROJECT

JAPAN PERU COOPERATION FOR EARTHQUAKE AND  
TSUNAMI DISASTER RISK REDUCTION

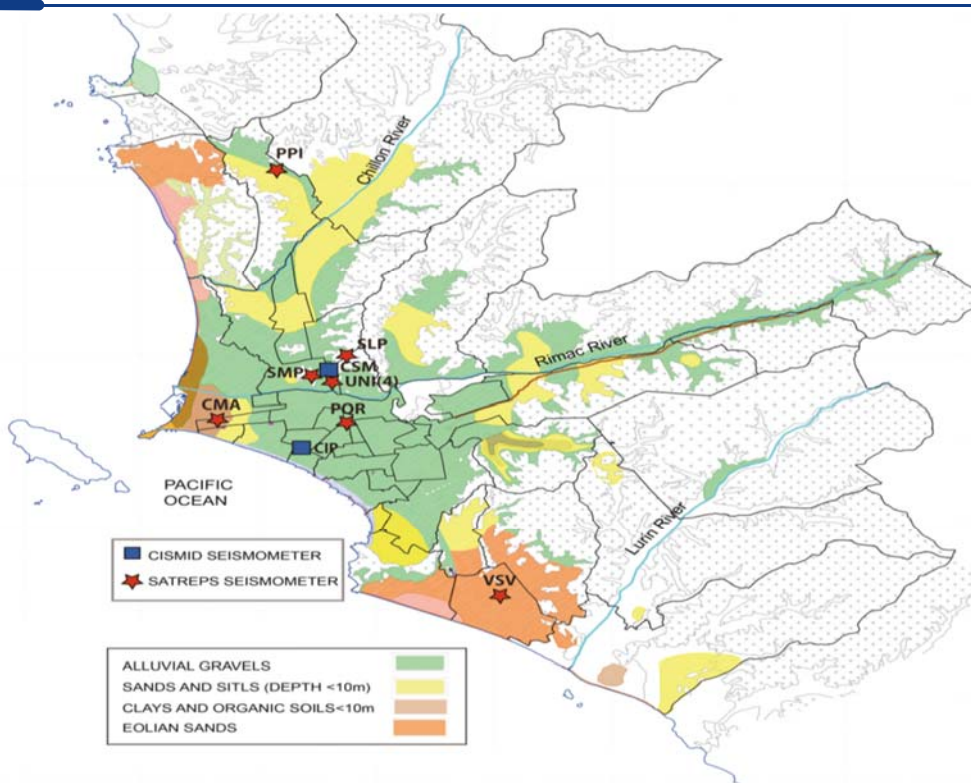
## COMPARISON OF DIRECT AND INDIRECT GEOPHYSICAL METHODS TO OBTAIN SOIL PROFILES FOR LIMA CITY

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Diana Calderón Cahuana, Dr. Eng.

CENTRO PERUANO JAPONÉS DE INVESTIGACIONES  
SÍSMICAS Y MITIGACIÓN DE DESASTRES - CISMID



## STRONG GROUND MOTION NETWORK CISMID – FIC - UNI

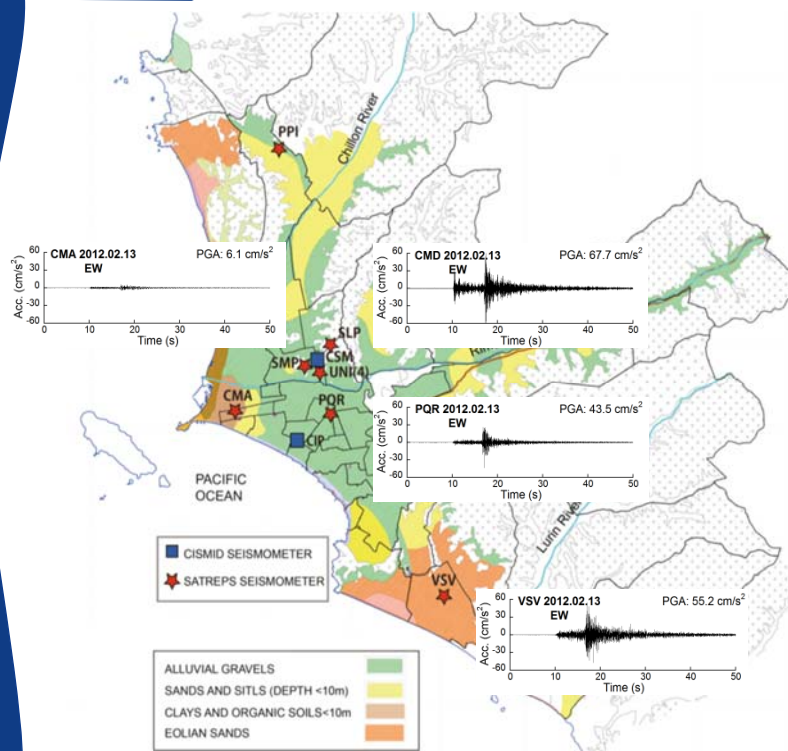




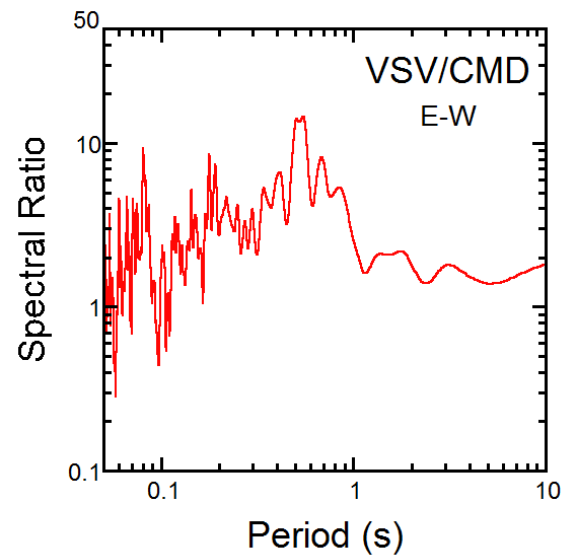
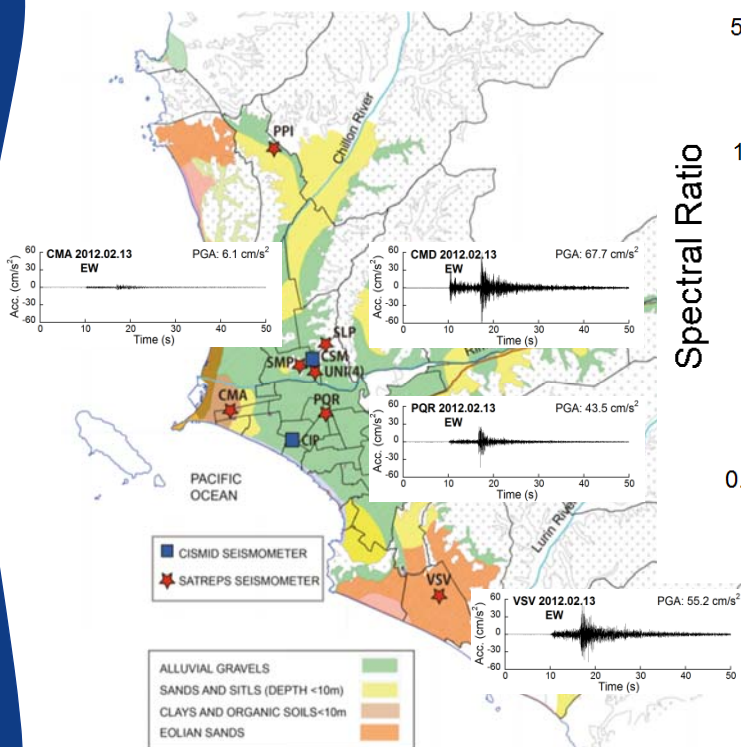


## GROUND MOTION RECORDS FROM 2012/02/13 EARTHQUAKE

**ML 4.8**  
**H=42Km**  
**42 Km South of**  
**Lima**

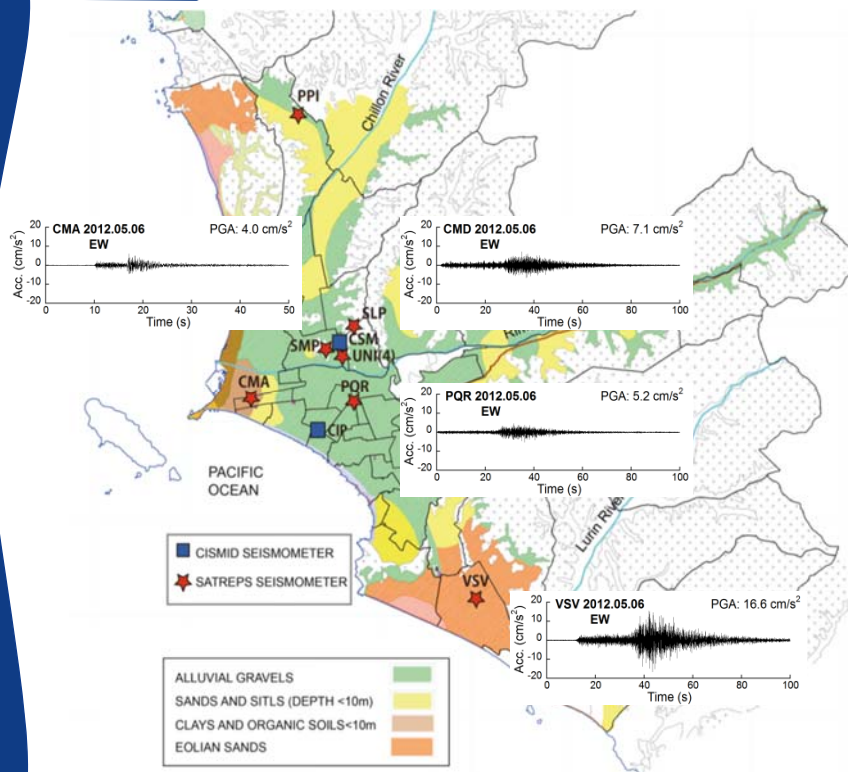


## GROUND MOTION RECORDS FROM 2012/02/13 EARTHQUAKE





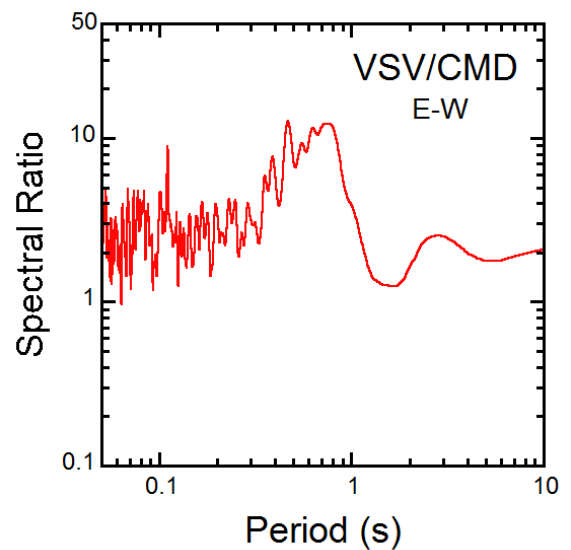
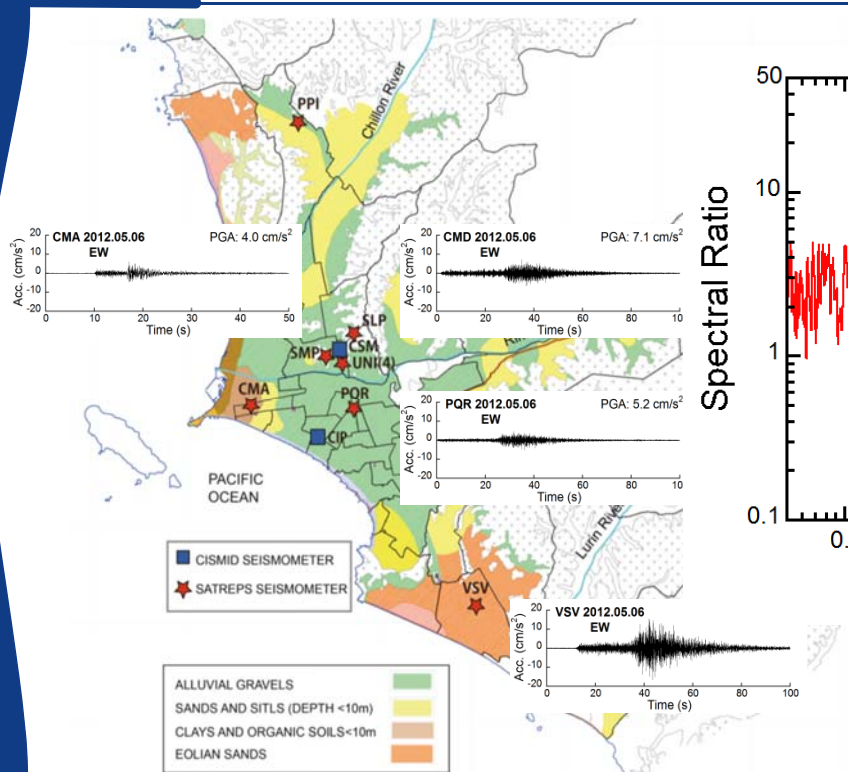
## GROUND MOTION RECORDS FROM 2012/05/06 EARTHQUAKE



**ML 5.5**  
**H=67Km**  
**11Km South of**  
**Pisco**



## GROUND MOTION RECORDS FROM 2012/05/06 EARTHQUAKE









# DIAMOND BOREHOLE AT PQR STATION - LIMA



Foto 57: SONDEO P-03, CAJA 03, Prof: 8.40 - 11.00 m



Foto 58: SONDEO P-03, CAJA 04, Prof: 11.00 - 15.00 m



# BOREHOLE LOGGING PQR STATION - LIMA





# DIAMOND BOREHOLE AT VSV STATION – VILLA EL SALVADOR



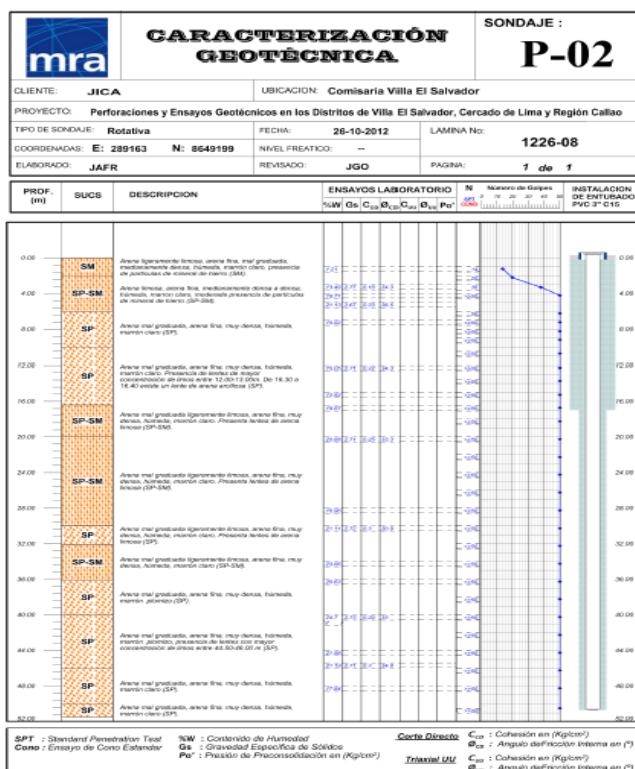
Foto 51: SONDEO P-02, CAJA 05, Prof.: 29.00 - 37.00 m



Foto 52: SONDEO P-02, CAJA 06, Prof.: 39.00 - 44.05 m



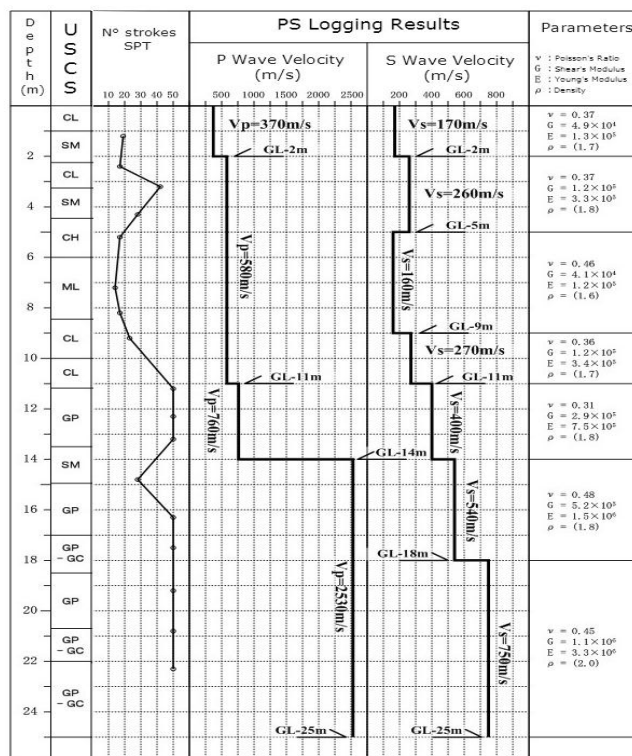
# BOREHOLE LOGGING VSV STATION



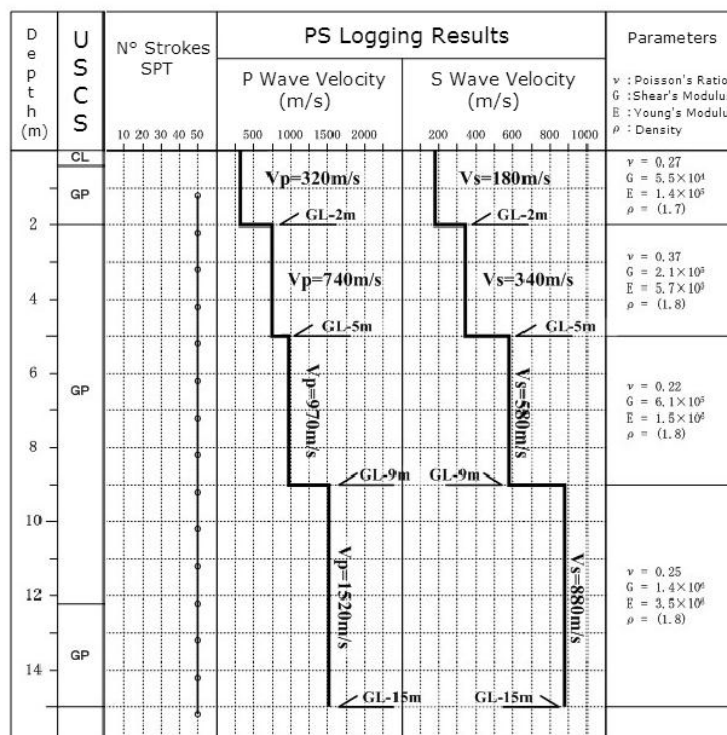




## PS WELL LOGGING RESULTS CMA STATION



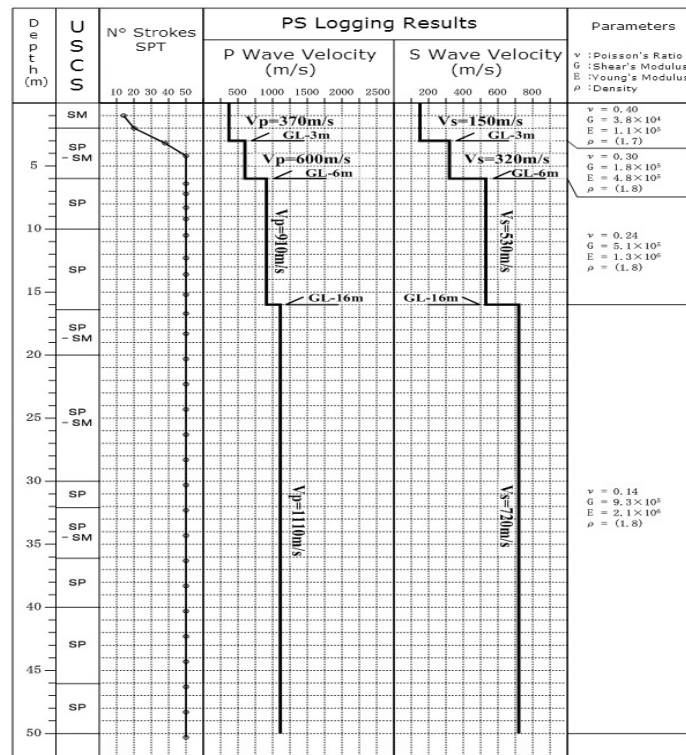
## PS WELL LOGGING RESULTS PQR STATION



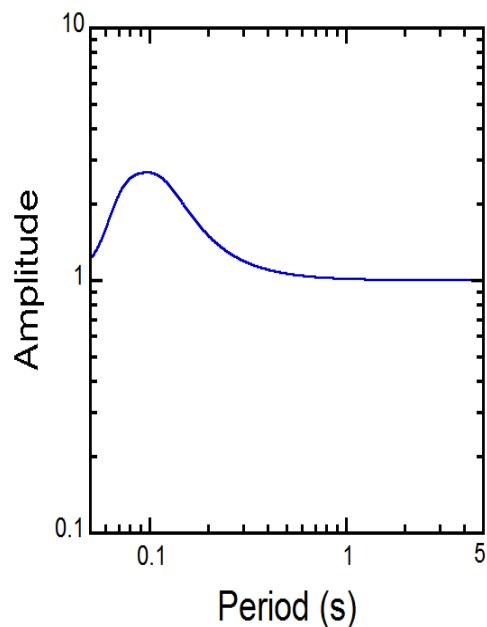
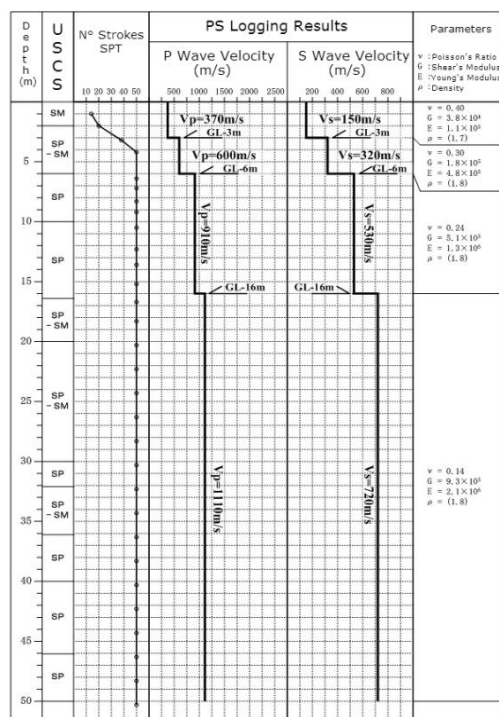




# PS WELL LOGGING RESULTS VSV STATION

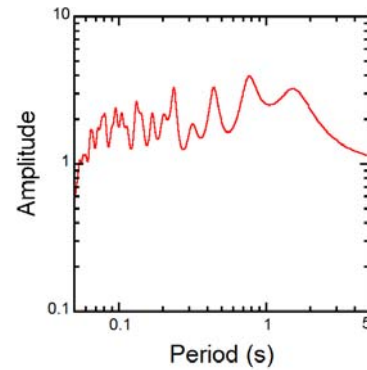
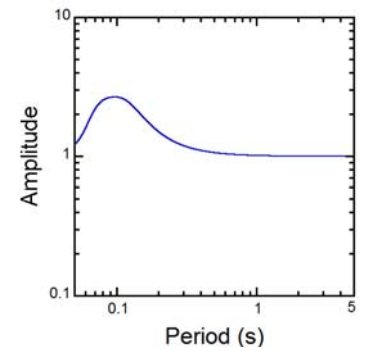
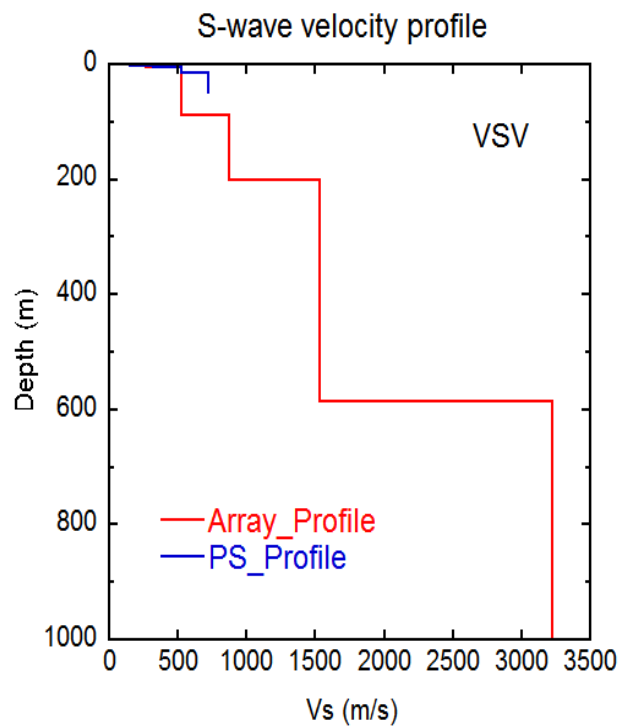


## TRANSFER FUNCTION USING PS LOGGING DATA AT VSV STATION

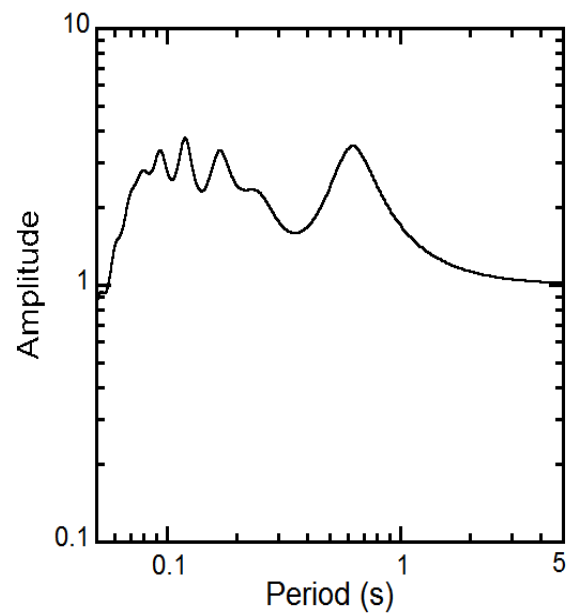
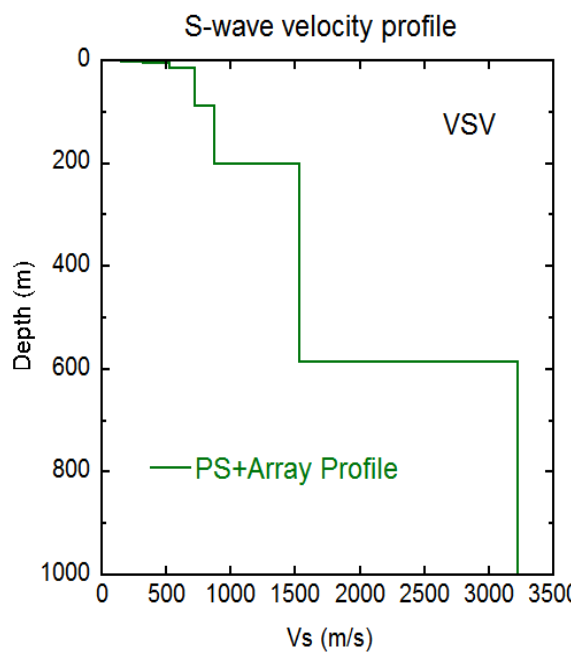




## TRANSFER FUNCTION AT VSV STATION PS LOGGING AND ARRAY PROFILES

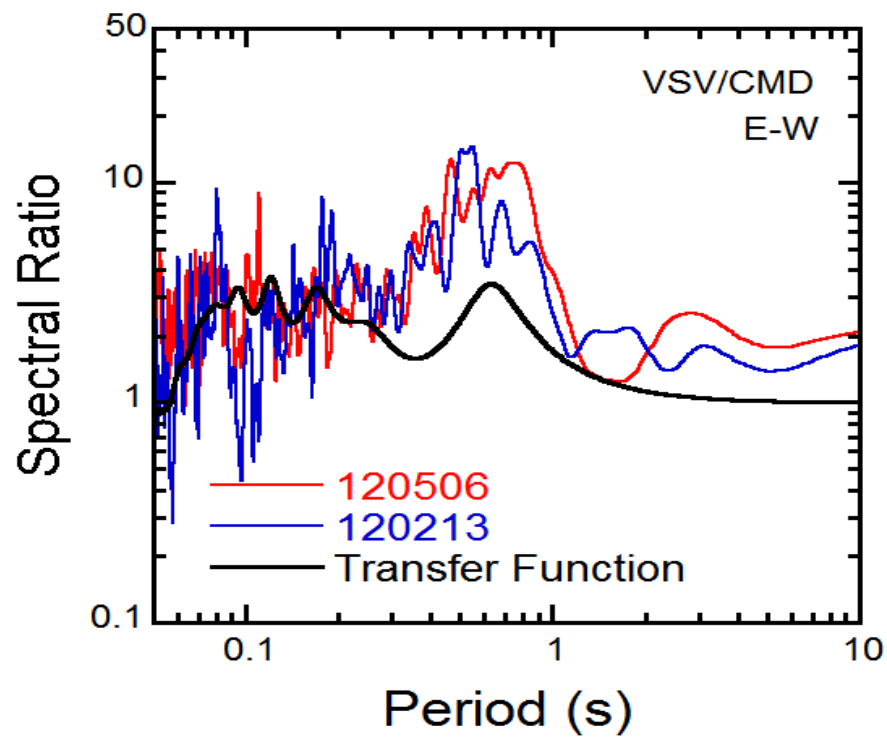


## TRANSFER FUNCTION USING A COMBINED Vs PROFILE - VSV STATION

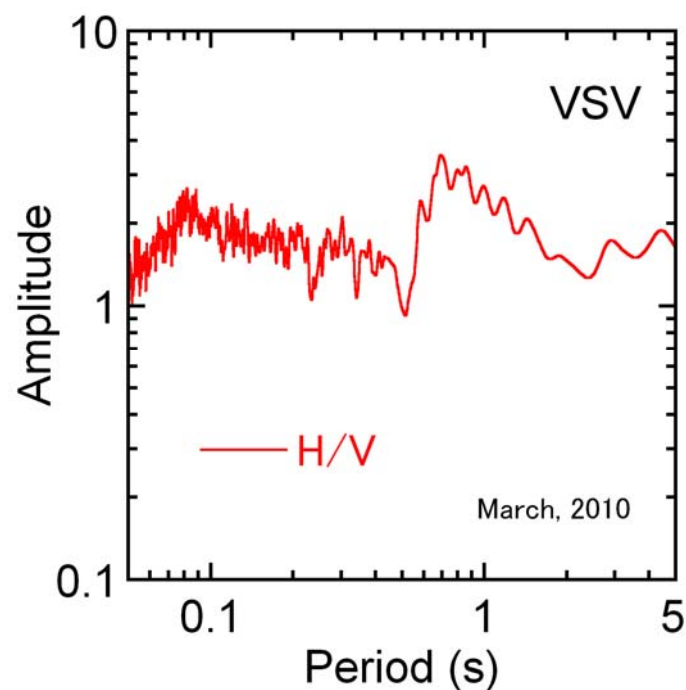




## COMPARISON OF TRANSFER FUNCTIONS OF THE Vs PROFILE AND SPECTRAL RATIO FROM SEISMIC RECORDS



## MICROTREMOR H/V SPECTRAL RATIO VSV STATION







# THANK YOU

