

STATION INFORMATION

Station code: 3

Model: Geobox

Sensor: SARA SS45 (external 4.5 Hz sensors)

Notes: -

PLACE INFORMATION

Place ID: Podere San Giovanni

Address: Canneto - Monteverdi

Latitude: 43.214896

Longitude: 10.726510

Coordinate system: WGS84

Elevation: 160 m s.l.m.

Weather: sun

Notes: HV1

PHOTOGRAPHIC REFERENCES



SIGNAL AND WINDOWING

Sampling frequency: 100 Hz

Recording start time: 2018/02/01 15:52:31

Recording length: 23.72 min

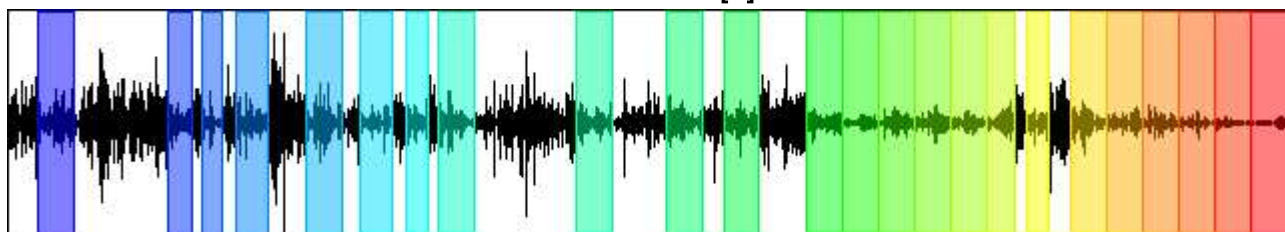
Windows count: 24

Average windows length: 36.63

Signal coverage: 61.77%

3812 Counts

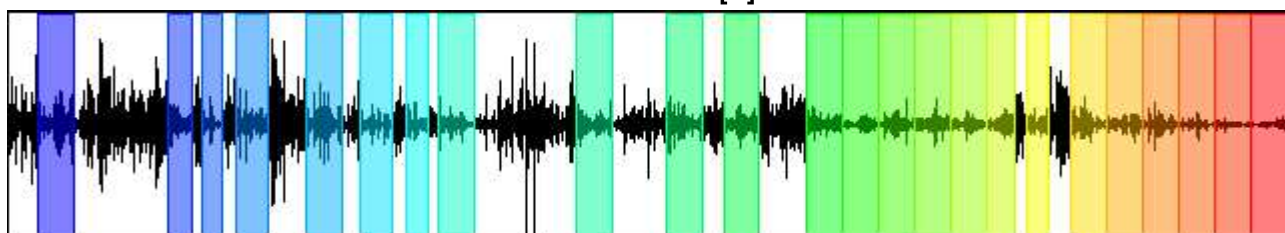
CHANNEL #1 [V]



-4746 Counts

9767 Counts

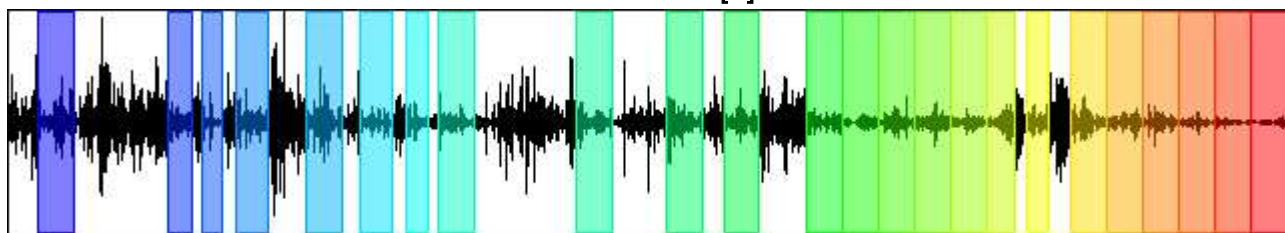
CHANNEL #2 [N]



-12720 Counts

23061 Counts

CHANNEL #3 [E]



-19520 Counts

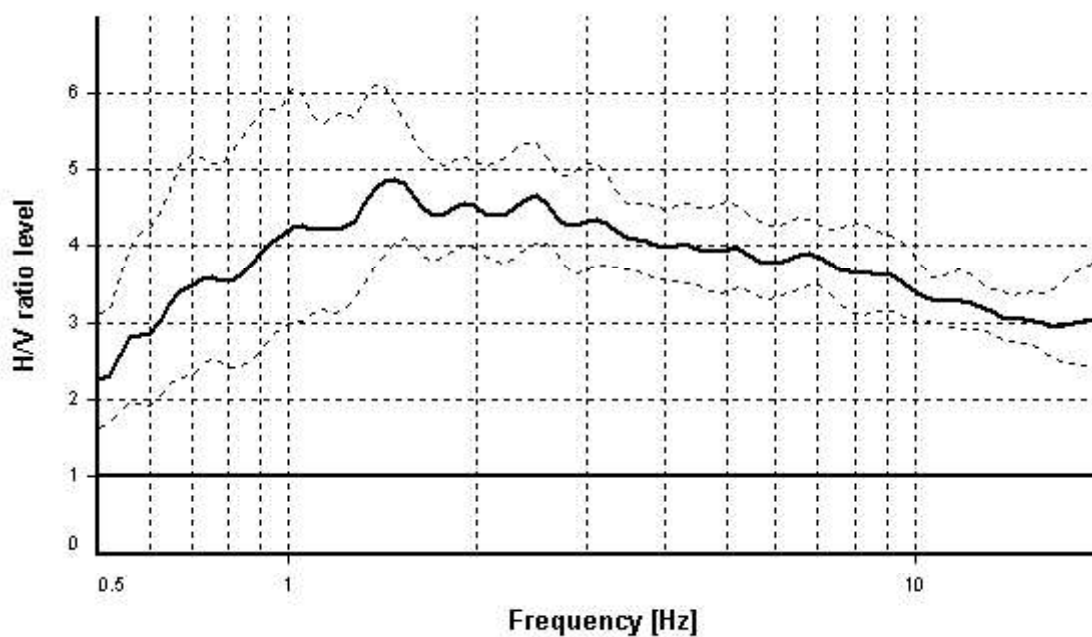
HVSR ANALYSIS

Tapering: Disabled

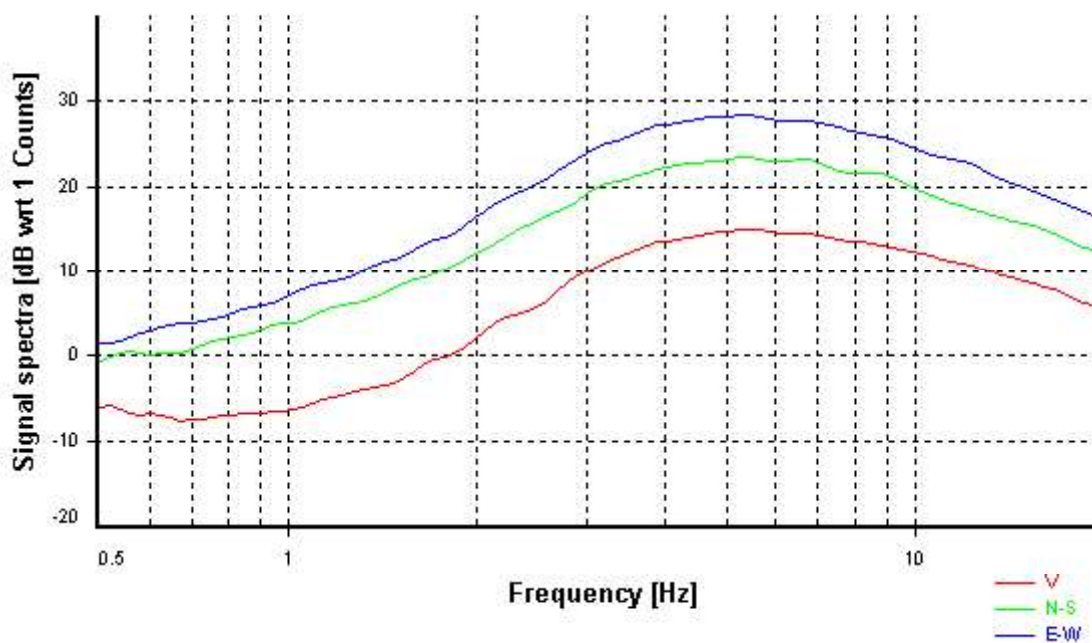
Smoothing: Konno-Ohmachi (Bandwidth coefficient = 40)

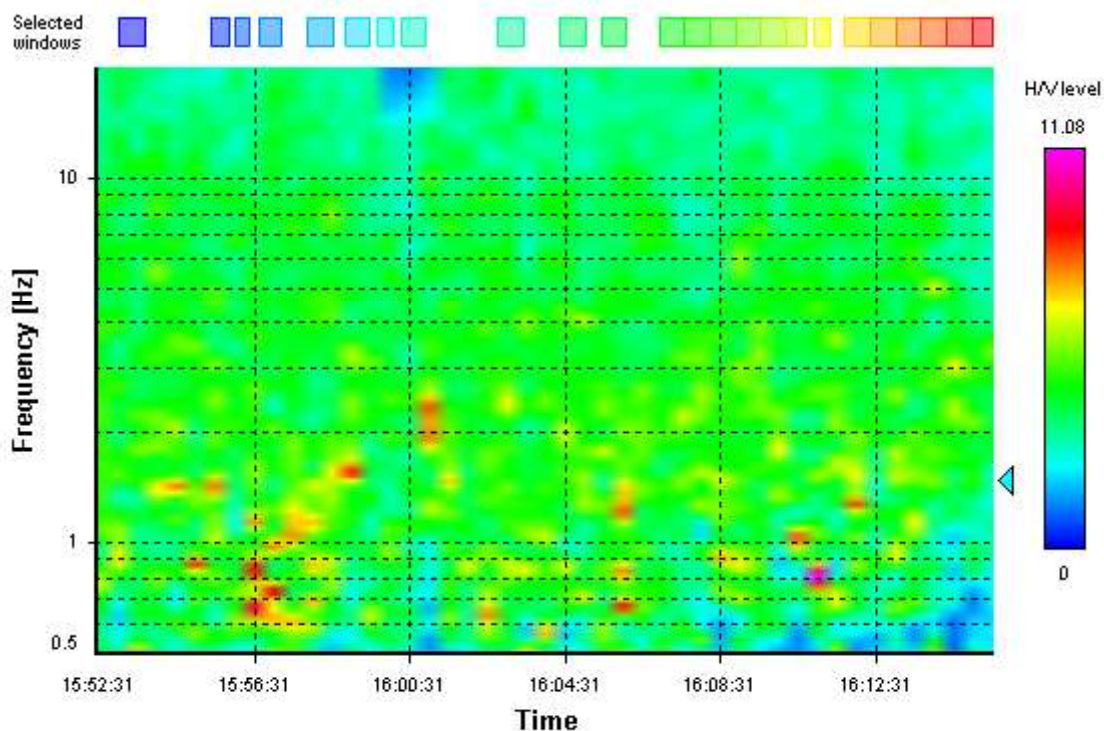
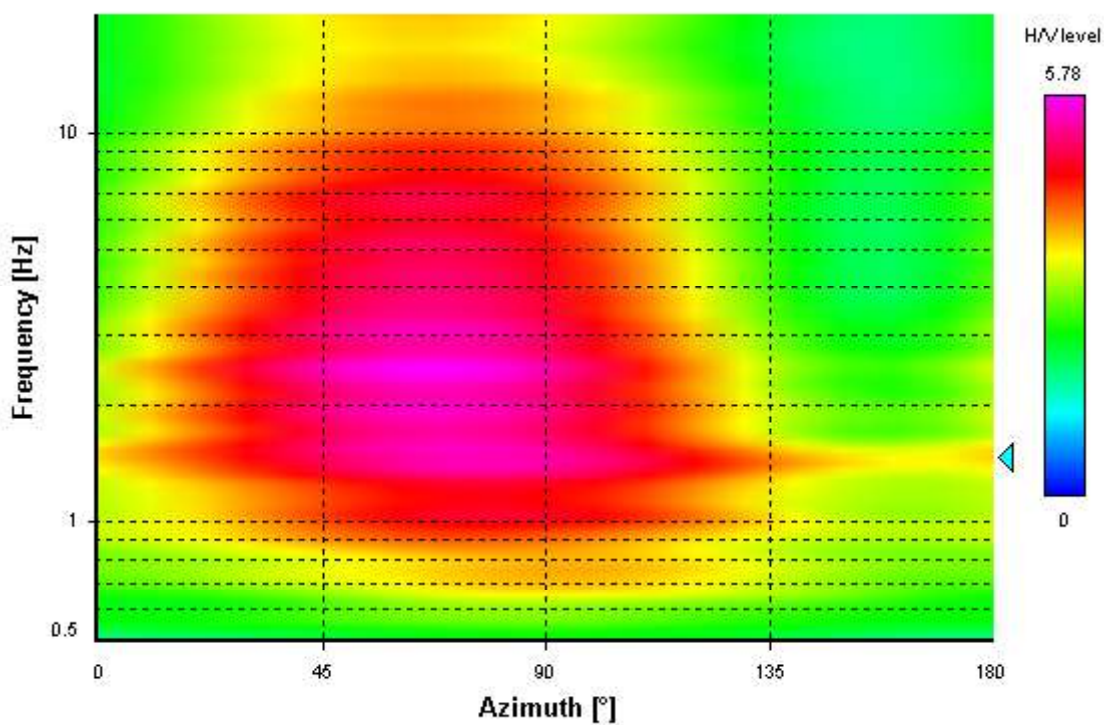
Instrumental correction: Disabled

HVSR average



Signal spectra average



HVSR time-frequency analysis (30 seconds windows)**HVSR directional analysis**

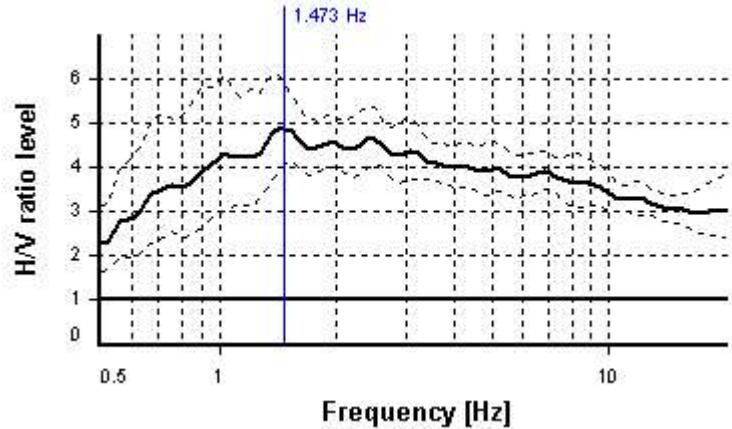
SESAME CRITERIA

Selected f_0 frequency

1.473 Hz

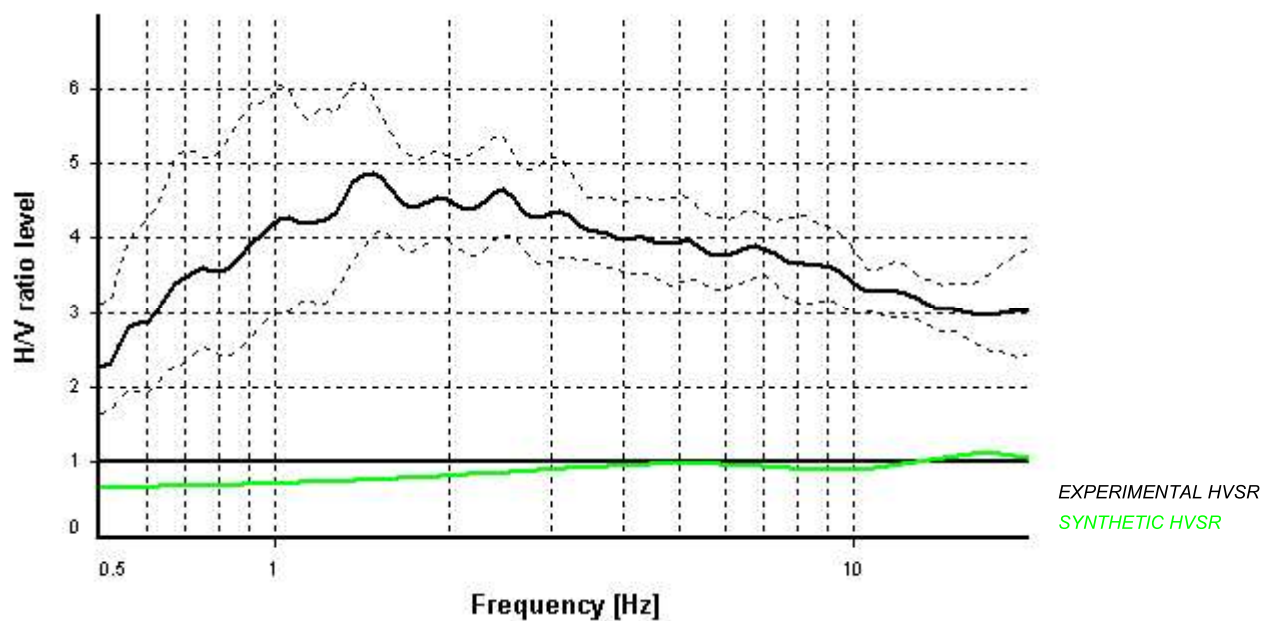
A_0 amplitude = 4.878

Average $f_0 = 1.458 \pm 0.366$

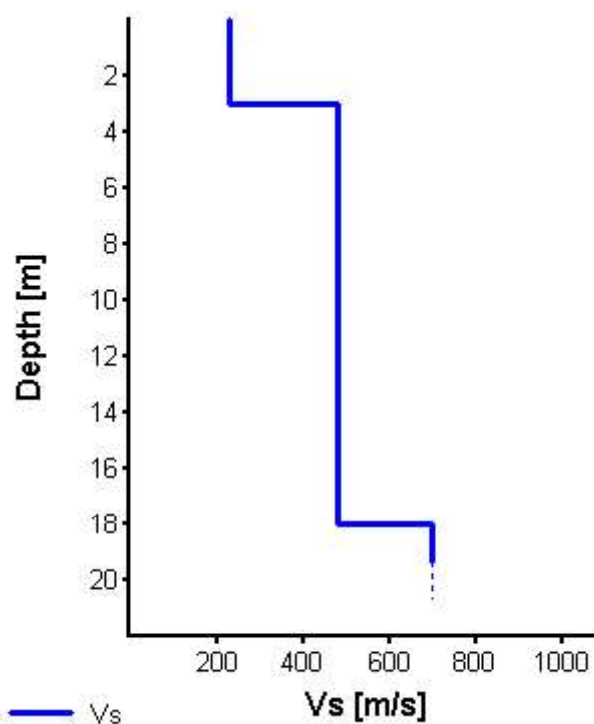


HVSr curve reliability criteria		
$f_0 > 10 / L_w$	24 valid windows (length > 6.79 s) out of 24	OK
$n_c(f_0) > 200$	1294.98 > 200	OK
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$	Exceeded 0 times in 37	OK
HVSr peak clarity criteria		
$\exists f \text{ in } [f_0/4, f_0] \mid A_{H/V}(f) < A_0/2$	0.51898 Hz	OK
$\exists f^+ \text{ in } [f_0, 4f_0] \mid A_{H/V}(f^+) < A_0/2$	0 Hz	NO
$A_0 > 2$	4.88 > 2	OK
$f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	7.18% > 5%	NO
$\sigma_f < \varepsilon(f_0)$	0.36617 >= 0.14732	NO
$\sigma_A(f_0) < \theta(f_0)$	1.20631 < 1.78	OK
Overall criteria fulfillment		NO

Synthetic HVSR modelling



H [m]	D [m]	Vp [m/s]	Vs [m/s]	ρ [kg/m ³]
3	3	500	230	1750
15	18	1300	480	1900
-	> 18	2000	700	1950



Vs 30 = 488 m/s (Offset = 0 m)