

SURVEY INFORMATION

Date: 2024/01/29

Client: Comune di Monteverdi Marittimo

PLACE INFORMATION

Place ID: Monteverdi H11

Address: Le querciolaie

Latitude: -

Longitude: -

Coordinate system: -

Elevation: 0 m

Weather: nuvoloso

Notes: -

STATION INFORMATION

Station code: 11

Model: SARA GEOBOX

Sensor: SARA SS45 (external 4.5 Hz sensors)

Notes: -

SIGNAL AND WINDOWING

Sampling frequency: 300 Hz

Recording start time: 2024/03/01 09:41:56

Recording length: 33.33 min

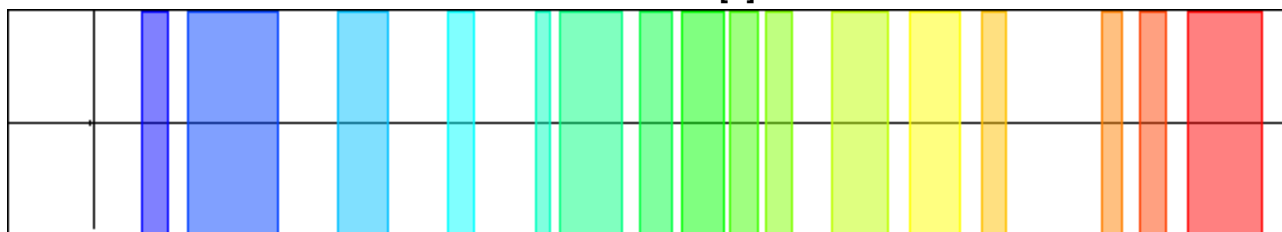
Windows count: 16

Average windows length: 62.67

Signal coverage: 50.14%

568045 Counts

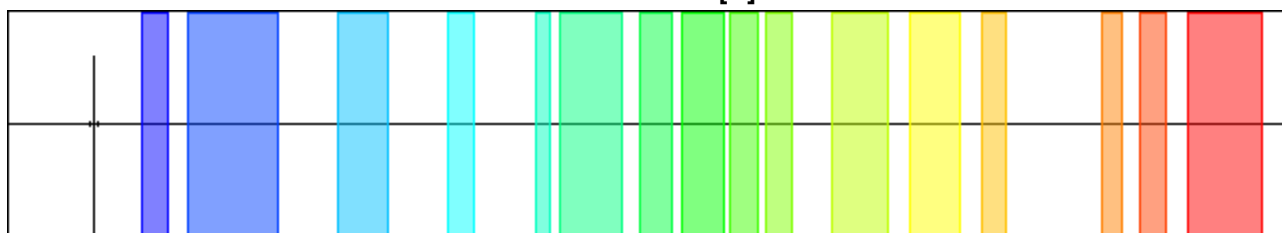
CHANNEL #1 [V]



-538660 Counts

376309 Counts

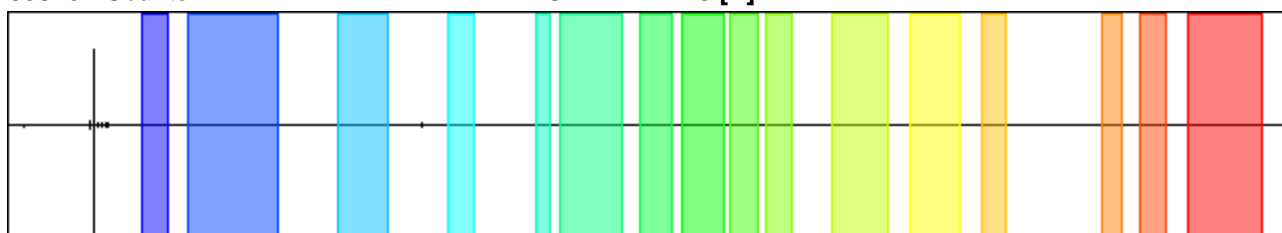
CHANNEL #2 [N]



-628966 Counts

305704 Counts

CHANNEL #3 [E]



-451794 Counts

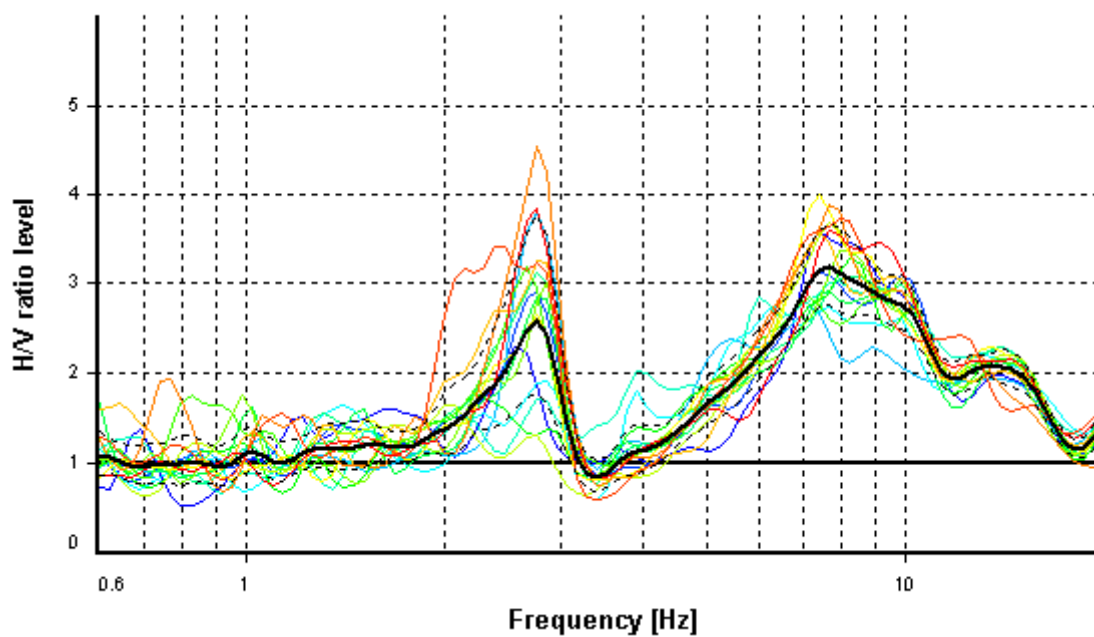
HVSR ANALYSIS

Tapering: Enabled (Bandwidth = 5%)

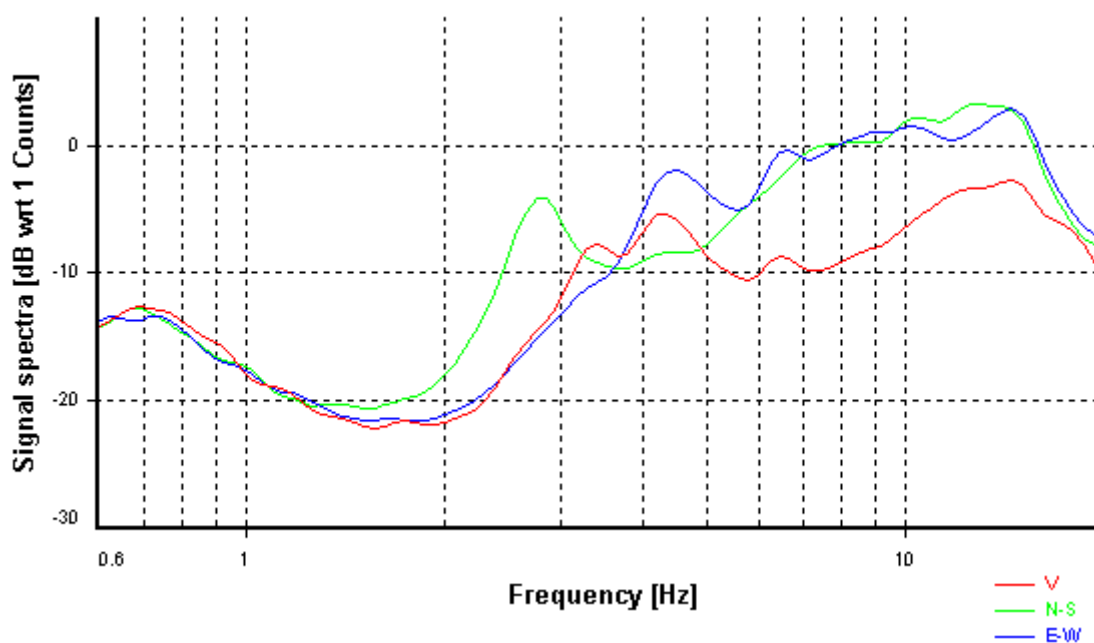
Smoothing: Konno-Ohmachi (Bandwidth coefficient = 40)

Instrumental correction: Disabled

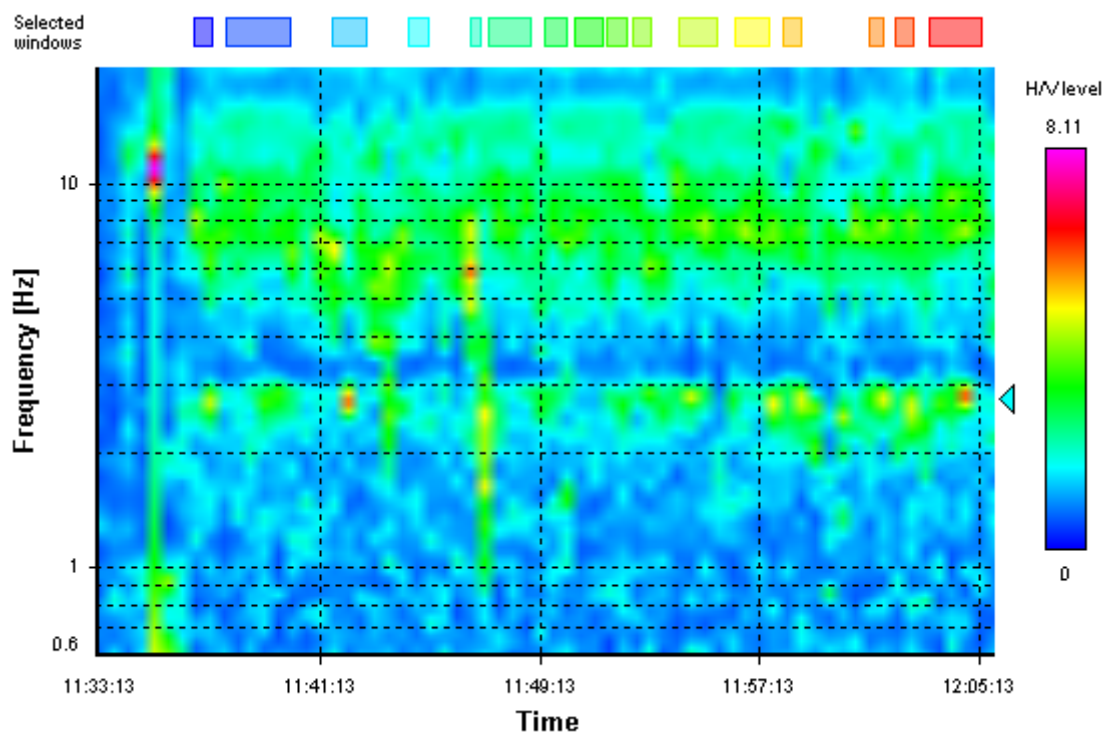
HVSR average



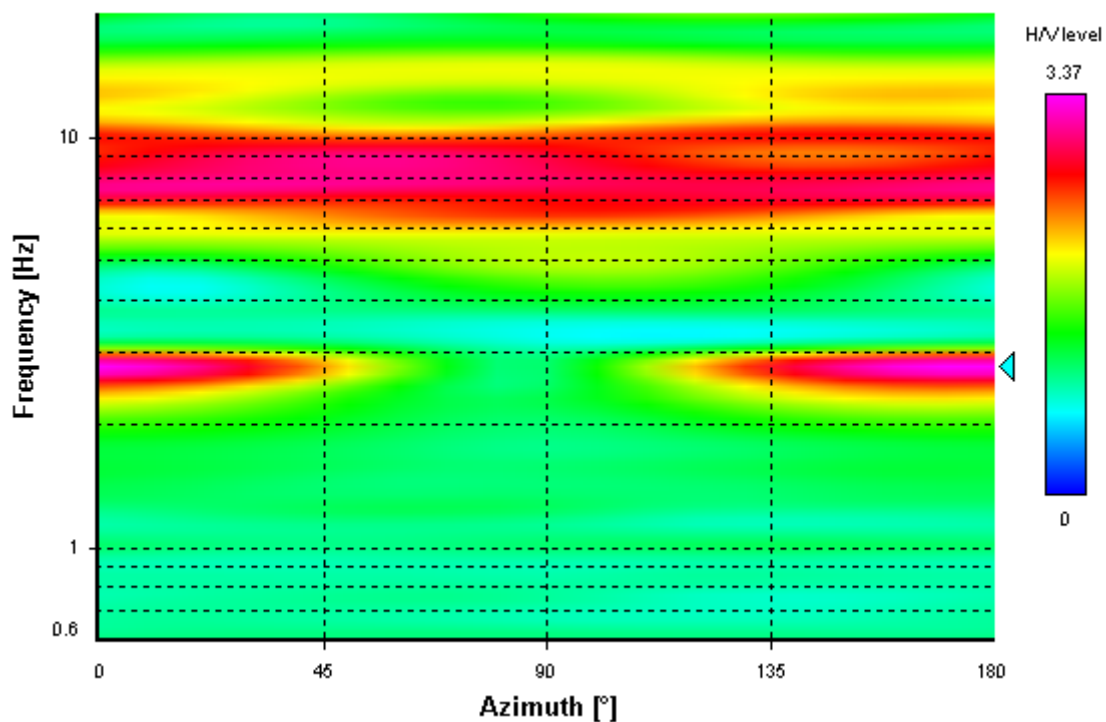
Signal spectra average



HVSR time-frequency analysis (30 seconds windows)



HVSR directional analysis



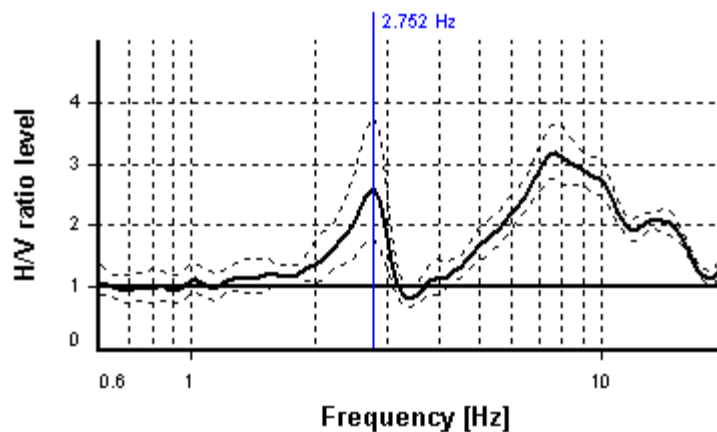
SESAME CRITERIA

Selected f_0 frequency

2.752 Hz

A_0 amplitude = 2.589

Average f_0 = 2.717 ± 0.399



HVSR curve reliability criteria		
$f_0 > 10 / L_w$	16 valid windows (length > 3.63 s) out of 16	OK
$n_c(f_0) > 200$	2759.17 > 200	OK
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$	Exceeded 0 times in 39	OK
HVSR peak clarity criteria		
$\exists f \text{ in } [f_0/4, f_0] \mid A_{H/V}(f) < A_0/2$	1.86378 Hz	OK
$\exists f^+ \text{ in } [f_0, 4f_0] \mid A_{H/V}(f^+) < A_0/2$	3.17055 Hz	OK
$A_0 > 2$	2.59 > 2	OK
$f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	0% <= 5%	OK
$\sigma_f < \varepsilon(f_0)$	0.39888 >= 0.13759	NO
$\sigma_A(f_0) < \theta(f_0)$	1.45961 < 1.58	OK
Overall criteria fulfillment		OK