SURVEY INFORMATION

Date: 2023/12/30

Client: Comune di monteverdi Marittimo

PLACE INFORMATION

Place ID: Canneto

Address: Aiuola tratto iniziale Via Garibaldi

Latitude: 43.200830

Longitude: 10.737092

Coordinate system: WGS84

Elevation: 280 m

Weather: nuvoloso

Notes: -

STATION INFORMATION

Station code: 1

Model: SARA GEOBOX

Sensor: SARA SS45 (external 4.5 Hz sensors)

Notes: -

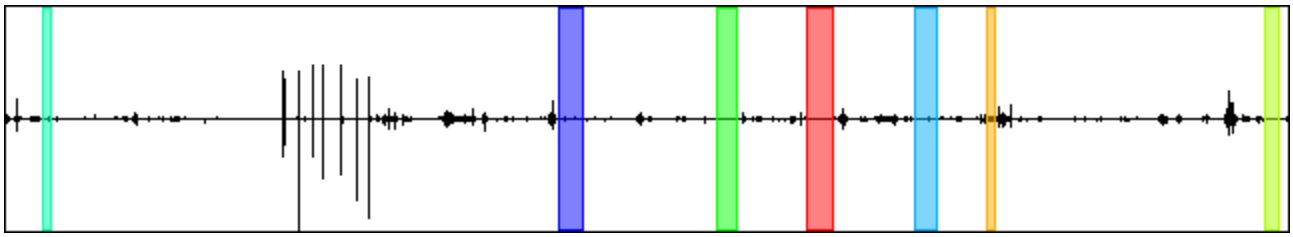
PHOTOGRAPHIC REFERENCES

SIGNAL AND WINDOWING

Sampling frequency:	200 Hz
Recording start time:	2023/12/28 13:39:55
Recording length:	40 min
Windows count:	7
Average windows length:	32.26
Signal coverage:	9.41%

457099 uV

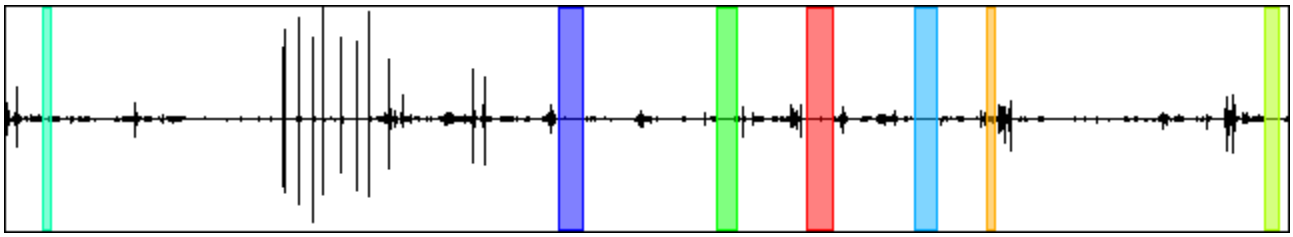
CHANNEL #1 [V]



-938267 uV

968709 uV

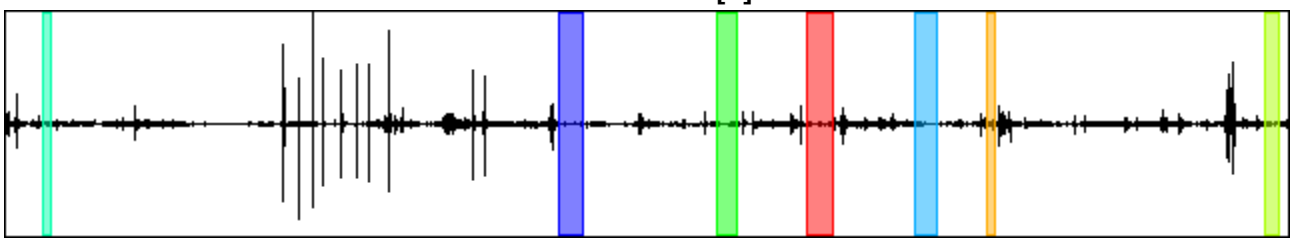
CHANNEL #2 [N]



-902161 uV

584585 uV

CHANNEL #3 [E]



-504354 uV

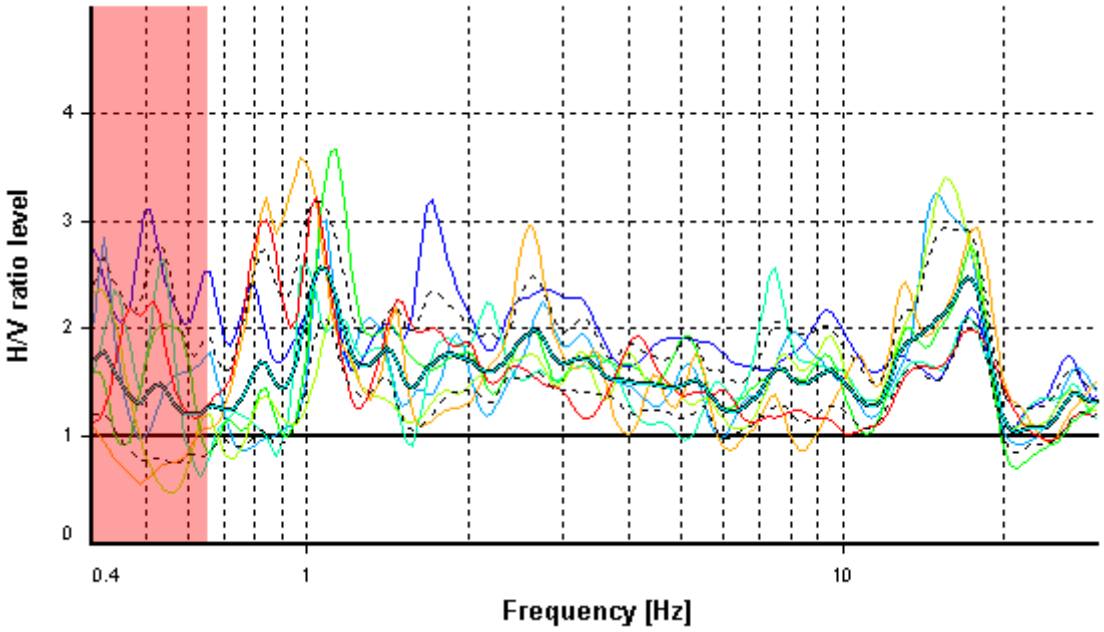
HVSR ANALYSIS

Tapering: Enabled (Bandwidth = 5%)

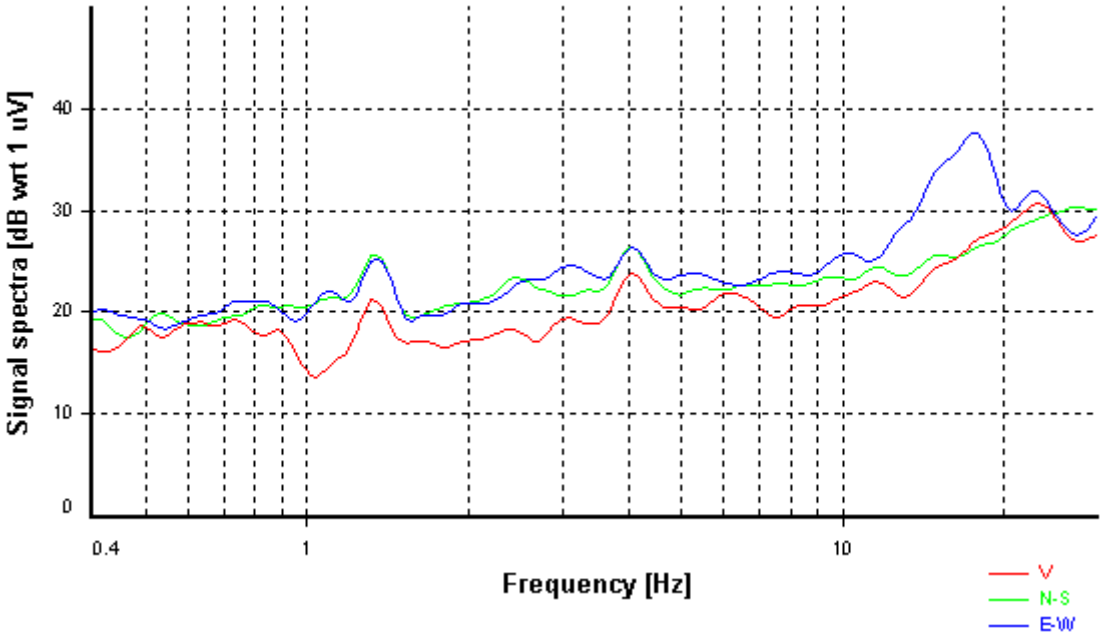
Smoothing: Konno-Ohmachi (Bandwidth coefficient = 40)

Instrumental correction: Disabled

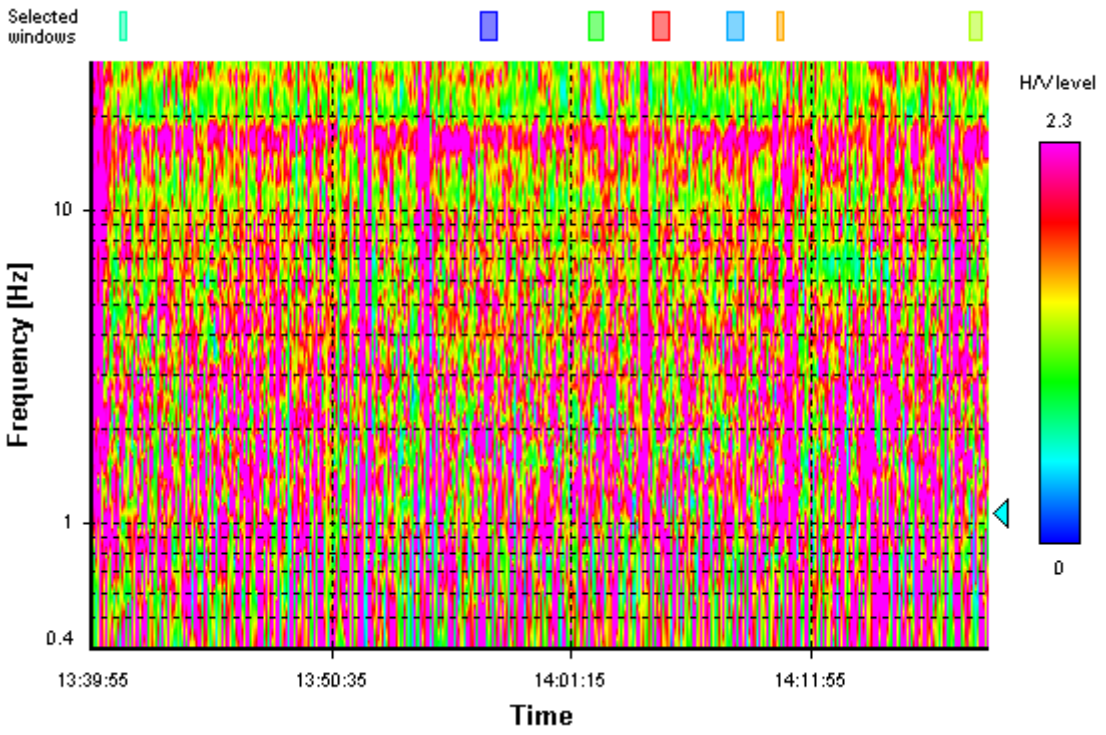
HVSR average



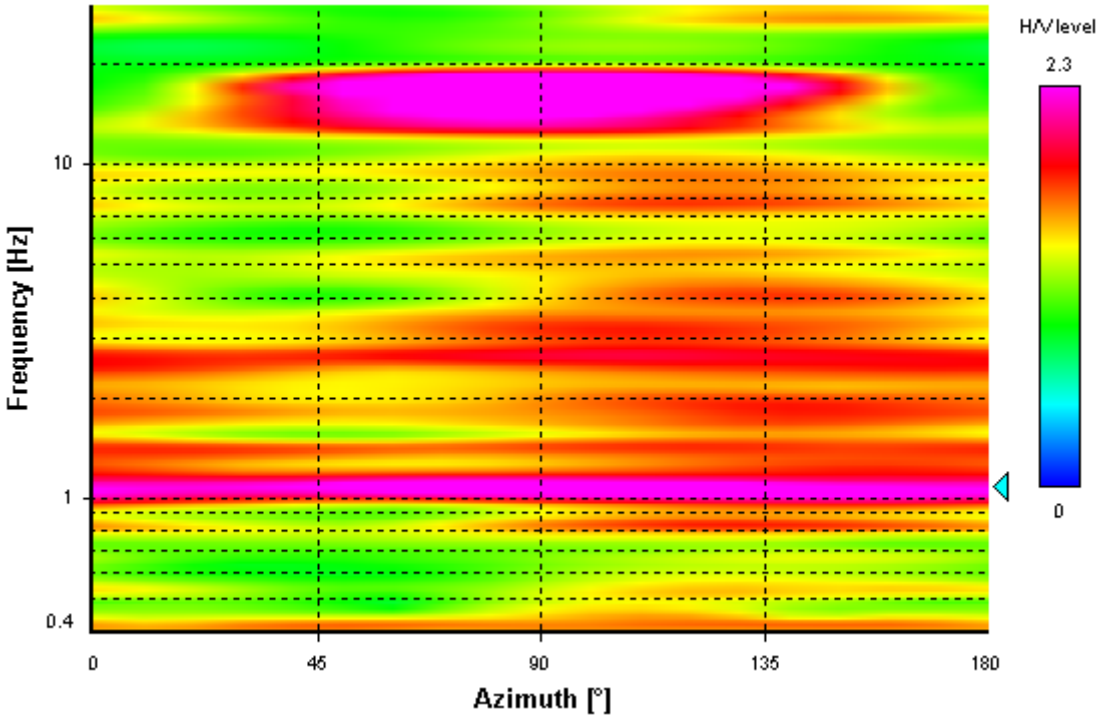
Signal spectra average



HVSR time-frequency analysis (5 seconds windows)



HVSR directional analysis



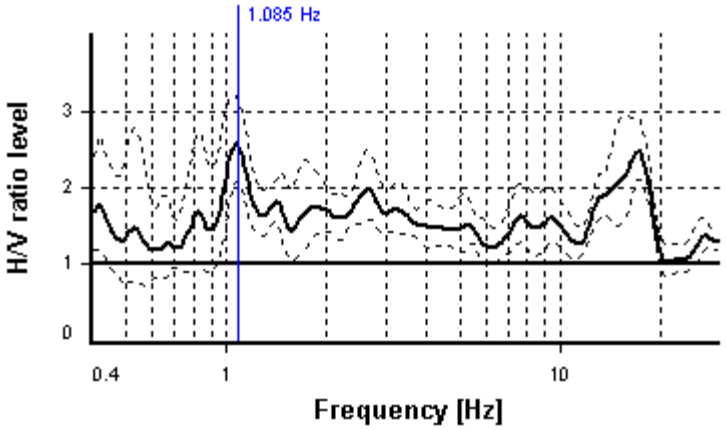
SESAME CRITERIA

Selected f_0 frequency

1.085 Hz

A_0 amplitude = *2.552*

Average f_0 = *1.063 ± 0.063*



HVSR curve reliability criteria		
$f_0 > 10 / L_w$	7 valid windows (length > 9.22 s) out of 7	**OK**
$n_c(f_0) > 200$	245.04 > 200	**OK**
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$	Exceeded 0 times in 63	**OK**
HVSR peak clarity criteria		
$\exists\ f^-$ in $[f_0/4, f_0]$ | $A_{H/V}(f^-) < A_0/2$	0.73432 Hz	**OK**
$\exists\ f^+$ in $[f_0, 4f_0]$ | $A_{H/V}(f^+) < A_0/2$	0 Hz	**NO**
$A_0 > 2$	2.55 > 2	**OK**
$f_{peak}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	4.25% <= 5%	**OK**
$\sigma_f < \varepsilon(f_0)$	0.06332 < 0.10852	**OK**
$\sigma_A(f_0) < \theta(f_0)$	1.22497 < 1.78	**OK**
Overall criteria fulfillment		**OK**

SESAME CRITERIA

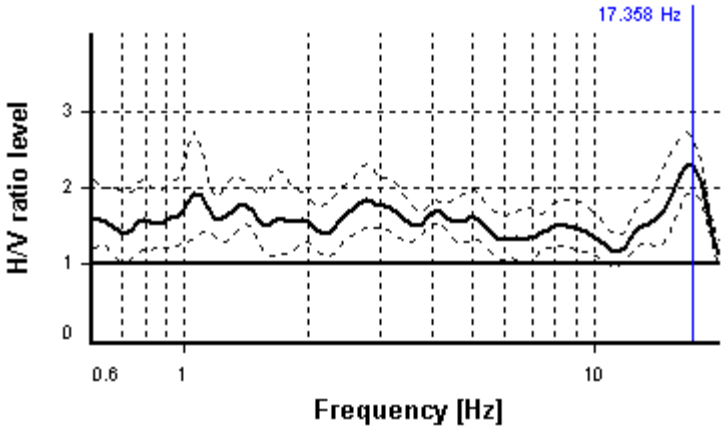
f0 primo contatto con Bedrock

Selected f_0 frequency

17.358 Hz

A_0 amplitude = *2.283*

Average f_0 = *16.939 ± 0.490*



HVSR curve reliability criteria		
$f_0 > 10 / L_w$	10 valid windows (length > 0.58 s) out of 10	**OK**
$n_c(f_0) > 200$	9717.79 > 200	**OK**
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$	Exceeded 0 times in 24	**OK**
HVSR peak clarity criteria		
$\exists\ f^-$ in $[f_0/4, f_0]$ | $A_{H/V}(f^-) < A_0/2$	0 Hz	**NO**
$\exists\ f^+$ in $[f_0, 4f_0]$ | $A_{H/V}(f^+) < A_0/2$	20 Hz	**OK**
$A_0 > 2$	2.28 > 2	**OK**
$f_{peak}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	3.48% <= 5%	**OK**
$\sigma_f < \varepsilon(f_0)$	0.48995 < 0.8679	**OK**
$\sigma_A(f_0) < \theta(f_0)$	1.16599 < 1.58	**OK**
Overall criteria fulfillment		**OK**