

RISULTATO INDAGINE

SAN BENEDETTO DEL TRONTO, VIA CELLINI

Instrument: TEP-0064/01-10

Start recording: 17/05/11 11:21:22 End recording: 17/05/11 11:41:23

Smoothing window: Triangular window

Channel labels: NORTH SOUTH; EAST WEST ; UP DOWN

GPS data not available

Trace length: 0h20'00". Analysis performed on the entire trace.

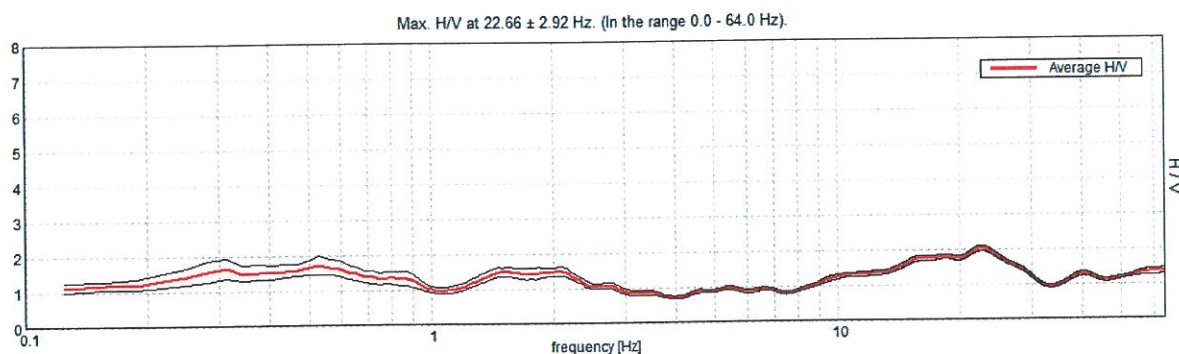
Sampling frequency: 128 Hz

Window size: 20 s

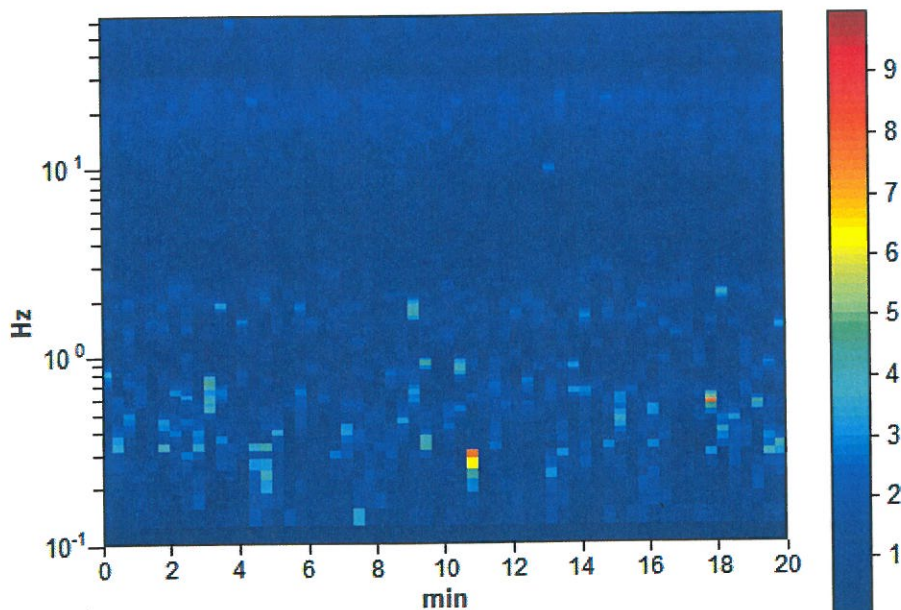
Smoothing window: Triangular window

Smoothing: 10%

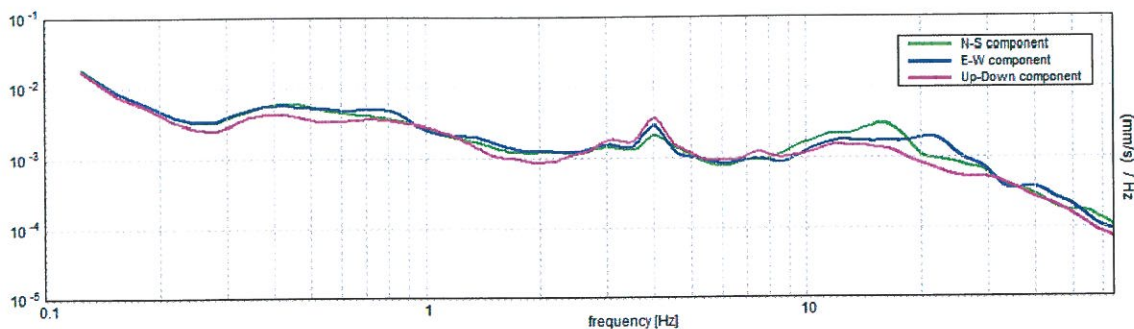
HORIZONTAL TO VERTICAL SPECTRAL RATIO



H/V TIME HISTORY



SINGLE COMPONENT SPECTRA



Sesame Guidelines (2005)

Max. HVSR at 22.06 ± 2.92Hz. (in the range 0.0 - 64.0 Hz).

Criteria for a reliable HVSR curve [All 3 should be fulfilled]

$f_0 > 10 / L_w$	22.66 > 0.50	OK
$n_c(f_0) > 200$	27187.5 > 200	OK
$\sigma_A(f) < 2$ for $0.5f_0 < f < 2f_0$ if $f_0 > 0.5\text{Hz}$	Exceeded 0 out of 1088 times	OK
$\sigma_A(f) < 3$ for $0.5f_0 < f < 2f_0$ if $f_0 < 0.5\text{Hz}$		

Criteria for a clear HVSR peak [At least 5 out of 6 should be fulfilled]

Exists f_- in $[f_0/4, f_0]$ $A_{H/V}(f_-) < A_0 / 2$	8.688 Hz	OK
Exists f_+ in $[f_0, 4f_0]$ $A_{H/V}(f_+) < A_0 / 2$	31.75 Hz	OK
$A_0 > 2$	2.02 > 2	OK
$f_{\text{peak}}[A_{H/V}(f) \pm \sigma_A(f)] = f_0 \pm 5\%$	$ 0.04801 < 0.05$	OK
$\sigma_f < \varepsilon(f_0)$	1.03385 < 1.17813	OK
$\sigma_A(f_0) < \theta(f_0)$	0.0374 < 1.58	OK

EXPERIMENTAL VS. SYNTHETIC H/V

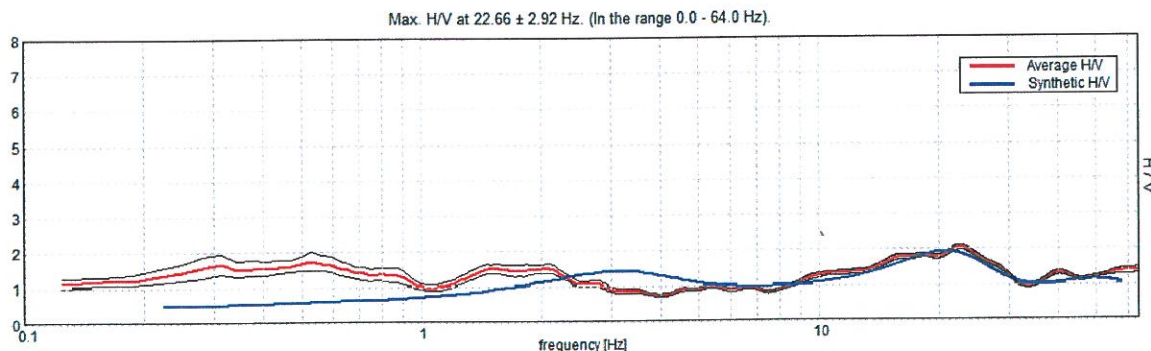


TABELLA VELOCITA' ONDE S

Depth (layer bottom) [m]	Thickness [m]	Vs [m/s]
0.20	0.20	50
0.40	0.20	80
1.20	0.80	100
3.20	2.00	170
4.20	1.00	180
5.20	1.00	190
6.20	1.00	200
7.20	1.00	210
8.20	1.00	220
9.20	1.00	230
11.20	2.00	240
13.20	2.00	260
15.20	2.00	270
17.20	2.00	280
18.20	1.00	290
19.20	1.00	300
20.20	1.00	310
21.20	1.00	320
22.20	1.00	325
23.20	1.00	330
24.20	1.00	335
25.20	1.00	340
26.20	1.00	345
28.20	2.00	350
29.20	1.00	355
30.20	1.00	360
32.20	2.00	365
inf.	0.00	370

$V_s(0.0-30.0)=240\text{m/s}$

