

Vibra-Tech Engineers, Inc. Seismic Analysis

Stop Event Report

Serial No: 8154 v5.11
Client: COUNTY OF MARIN
Operation: SAN RAFAEL ROCK QUARRY
Location: 16 MARIN BAY PARK CT.
Distance:
Operator: VIBRA-TECH IP2
Comment: WILLIAM HOSKEN RES.

Begin Date: 10/07/2014 07:01:56 (UTC-7)
End Date: 10/07/2014 11:53:55 (UTC-7)
Events over Trigger: 0 (0--1)
Record Time: 5.0 s
Seismic Trigger: 0.030 in/s
Sound Trigger: N/A
Battery Level: 8.3

Additional Info:
VIRTUAL CHECK
j-GEO-01252
N37 59.524, W122 27.373

Shaketable Calibrated: 01/23/2014
By: Vibra-Tech, Inc.
2700 Holloway Road - Suite 113
Louisville, KY 40299 U.S.A.
TEL: 502.240.9900 FAX: 502.240.9902

Dynamic Calibration Graph:



Cal Test Results:

Longitudinal: Pass
Transverse: Pass
Vertical: Pass
Sound: Pass

The seismograph located at 16 Marin Bay Park Court (S/N 8154) did not trigger during the shot on October 7, 2014 at approximately 11:34 indicating the ground vibrations produced were below the ground trigger level of 0.030 in/sec.

Seismic Analysis

Velocity Waveform Analysis

Serial Number: 9668
Firmware Version: 0C-05.18
Event Date: 10/07/2014 11:34:32 (UTC -07:00)
Event number: 12
Recording Time: 5 s
Client: COUNTY OF MARIN
Operation: SAN RAFAEL ROCK QUARRY
Location: ON QUARRY PROPERTY
Distance:
Operator: VIBRA-TECH IP2
Comment:
Seismic Trigger: 0.03 in/s
Sound Trigger: OFF

Additional Info:

j-GEO-01253
 N37 59.481, W122 27.256

Summary Data

	L	T	V
PPV (in/s):	0.03	0.03	0.0425
FREQ (HZ):	38.5	29.4	38.5
PD (.001"):	0.32	0.2625	0.2825
PPA (g):	0.01953	0.01953	0.03255

Peak Vector Sum: 0.05 in/s
Peak Air Pressure: 107.2 dB
 0.0007307 psi @ 6.9 HZ

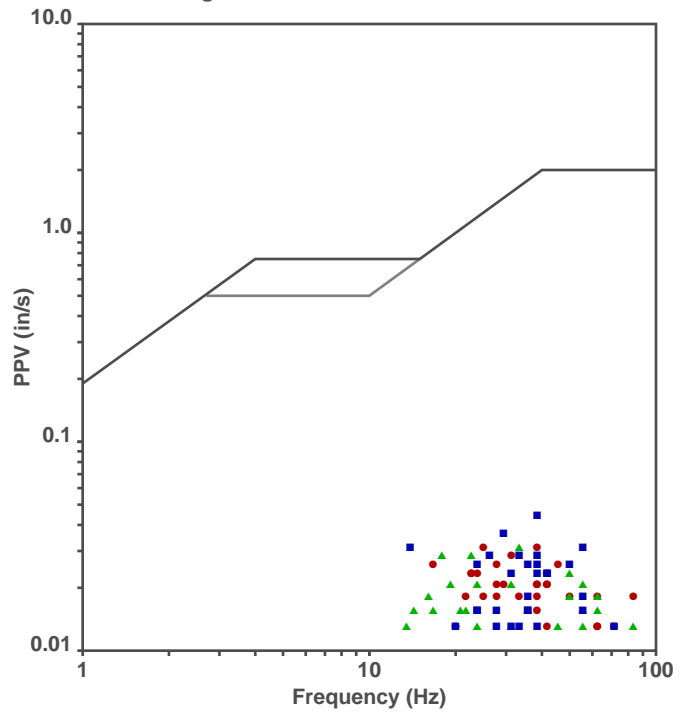
Shaketable Calibrated

On: 01/29/2014 (UTC -07:00)
By: Vibra-Tech, Inc.
 2700 Holloway Road - Suite 113
 Louisville, KY 40203 U.S.A.

USBM Safe Blasting Levels

SSN: 9668 Event: 12

● Longitudinal ▲ Transverse ■ Vertical



Waveform Graph Scale

Time Scale: 0.1 s
Seismic Scale: +/- 0.16 in/s
Sound Scale: +/- 0.0023 psi

Velocity Waveform

SSN: 9668 Event: 12

