

Miramar Siesmic Reading: White Rock Quarries.

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
12/10/2018	1:16 PM	0.175
12/12/2018	11:31 AM	0.063
12/14/2018	11:31 AM	0.11
12/20/2018	11:31 AM	0.05
12/21/2018	11:31 AM	0.088

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
12/10/2018	1:17 PM	0.083
12/14/2018	11:32 AM	0.1
12/18/2018	11:33 AM	0.033
12/20/2018	11:32 AM	0.033
12/21/2018	11:33 AM	0.063

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
12/10/2018	1:14 PM	0.095
12/11/2018	11:30 AM	0.11
12/12/2018	11:30 AM	0.038
12/14/2018	11:30 AM	0.048
12/18/2018	11:30 AM	0.108
12/20/2018	11:30 AM	0.078

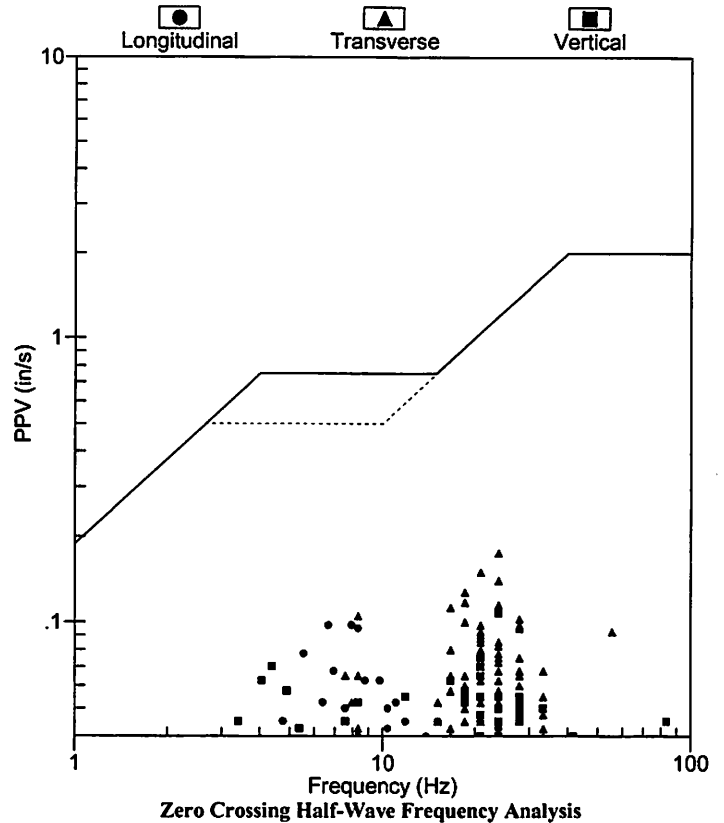
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 12/10/2018 13:15:36
Event No: 11
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 11



	Summary Data		
	L	T	V
PPV (in/s)	0.098	0.175	0.108
FREQ (Hz)	7.9	23.8	23.8
PD (.001")	2.43	1.96	3.15
PPA (g)	0.026	0.065	0.059
Peak Vector Sum :	0.180 in/s		
Peak Air Pressure:	108 db		
	0.00078 PSI @ 7.6 Hz		

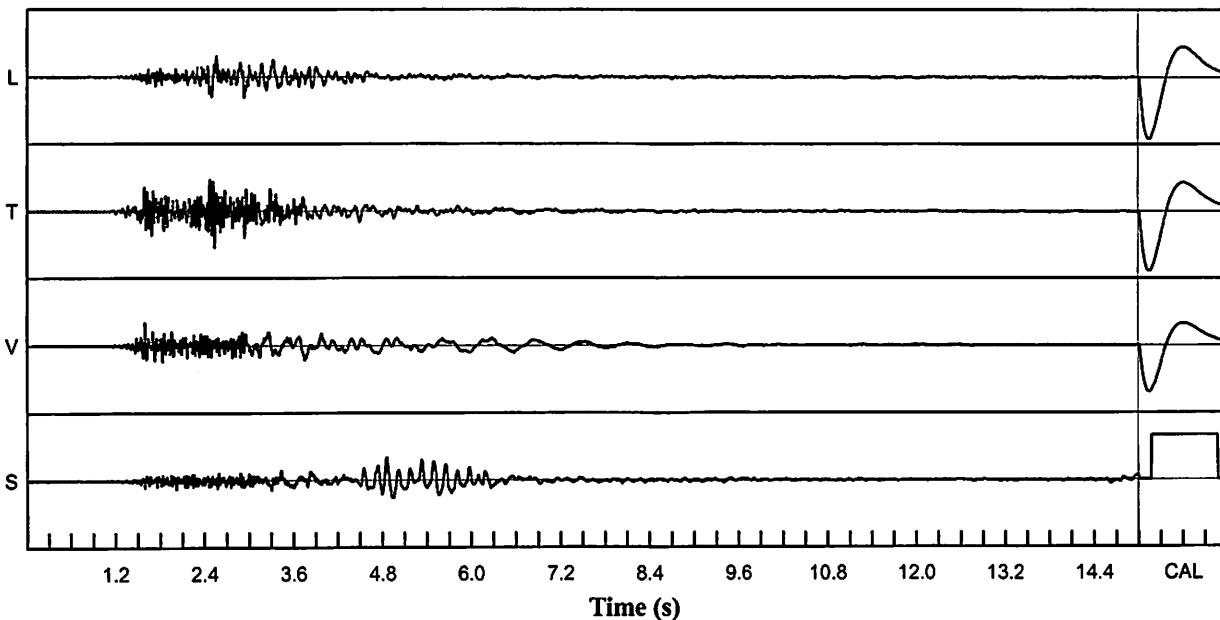
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.320 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 11



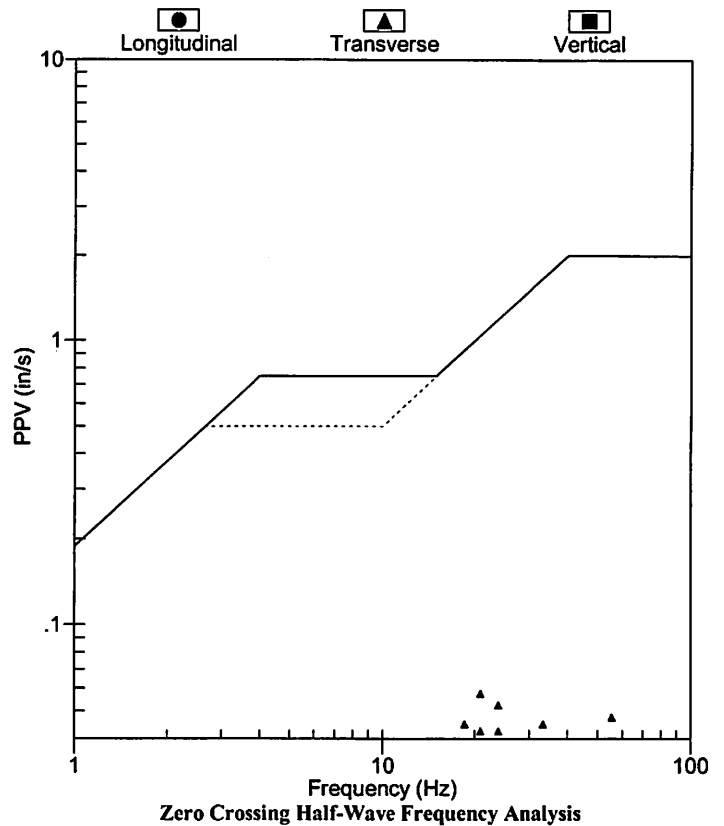
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 12/12/2018 11:30:52
Event No: 12
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 12



	Summary Data		
	L	T	V
PPV (in/s)	0.030	0.063	0.033
FREQ (Hz)	18.5	18.5	1.9
PD (.001")	0.89	1.09	2.53
PPA (g)	0.013	0.020	0.013
Peak Vector Sum :	0.065 in/s		
Peak Air Pressure:	106 db		
	0.00062 PSI @ 4.2 Hz		

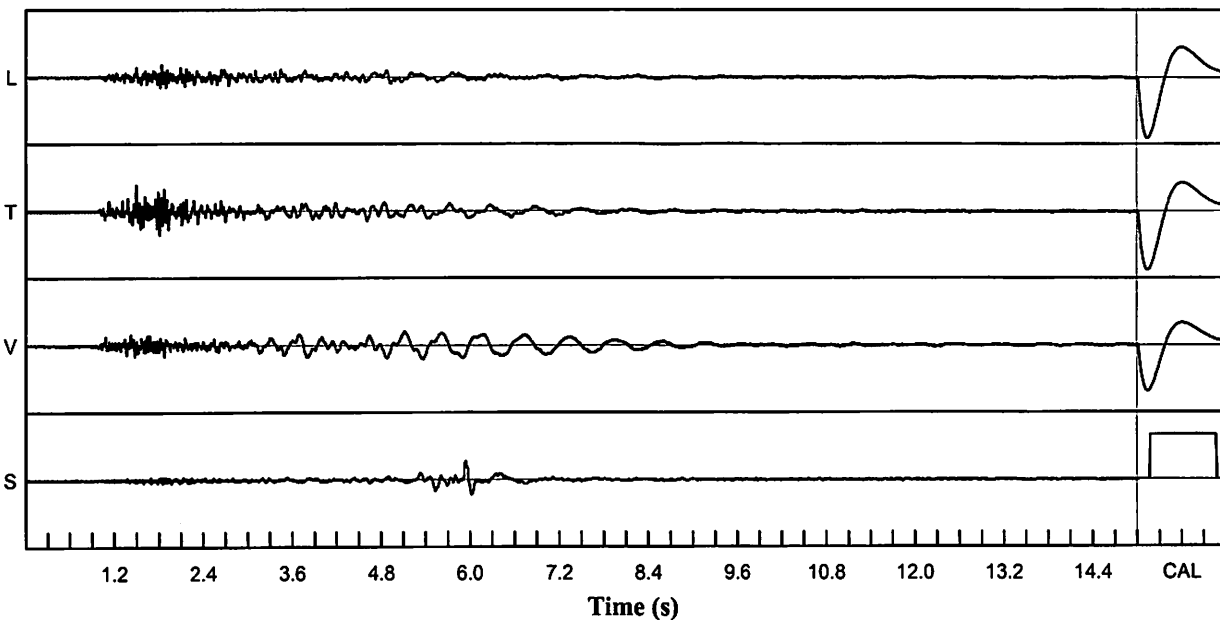
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 12



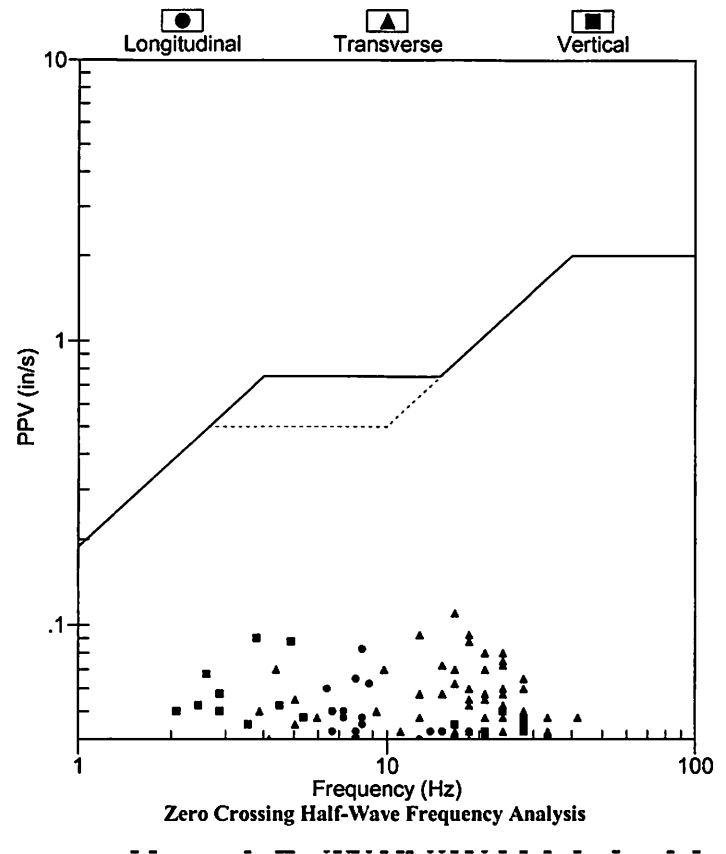
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 12/14/2018 11:30:32
Event No: 13
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 13



	Summary Data		
	L	T	V
PPV (in/s)	0.083	0.110	0.090
FREQ (Hz)	8.3	16.7	3.8
PD (.001")	1.60	2.35	3.80
PPA (g)	0.020	0.039	0.033
Peak Vector Sum :	0.123 in/s		
Peak Air Pressure:	110 db		
	0.00089 PSI @ 6.4 Hz		

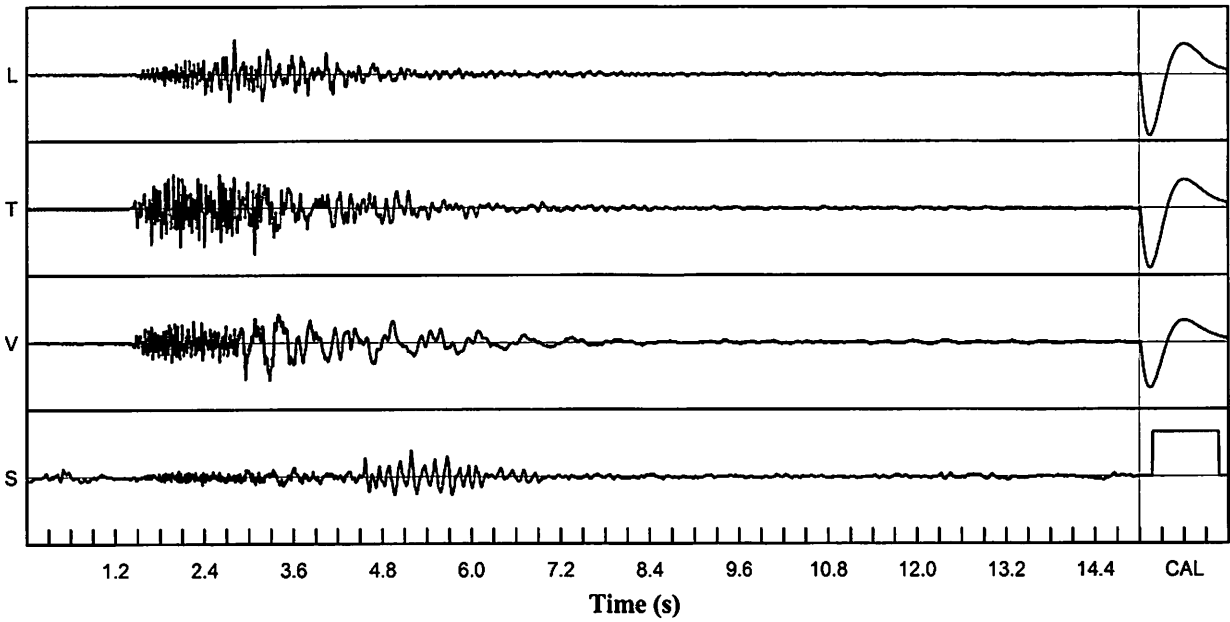
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 13



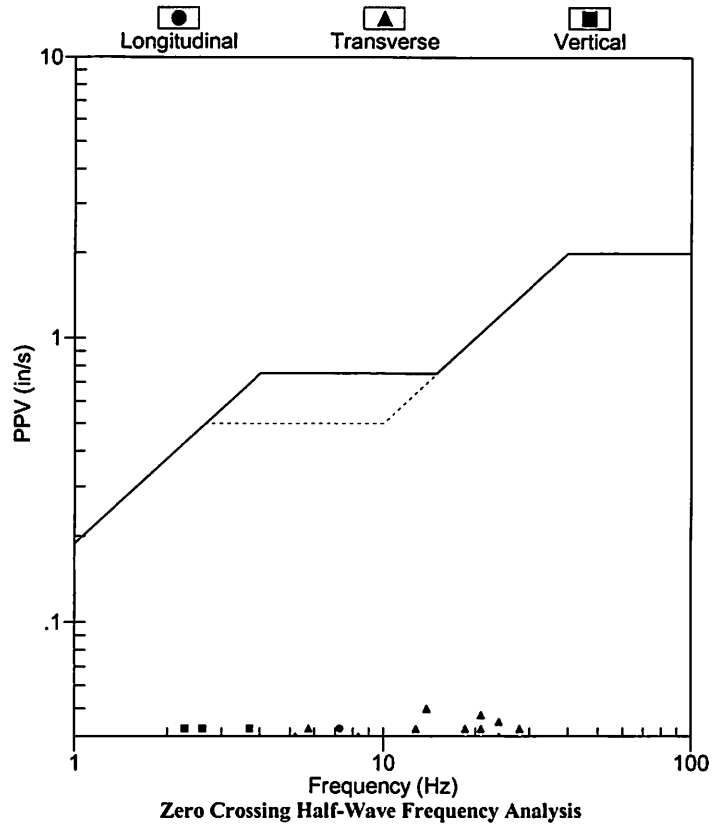
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 12/20/2018 11:30:33
Event No: 14
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 14



	Summary Data		
	L	T	V
PPV (in/s)	0.043	0.050	0.043
FREQ (Hz)	7.2	18.5	3.7
PD (.001")	1.37	1.51	2.89
PPA (g)	0.013	0.020	0.013
Peak Vector Sum :	0.053 in/s		
Peak Air Pressure:	113 db		
	0.00132 PSI @ 8.8 Hz		

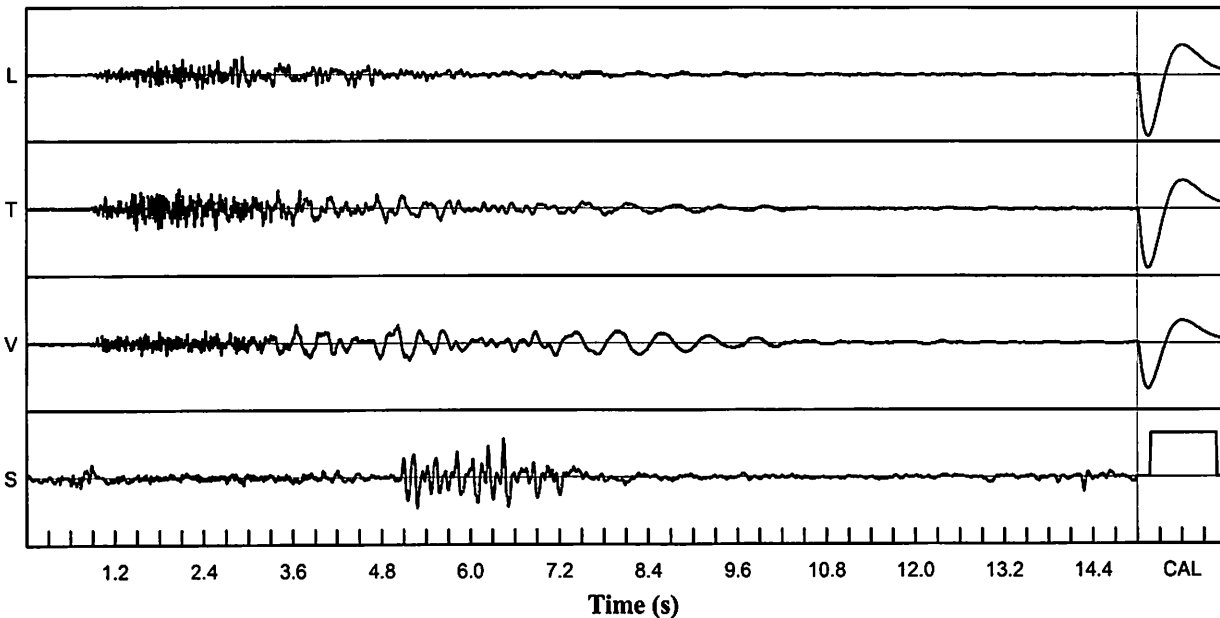
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5218 Event: 14



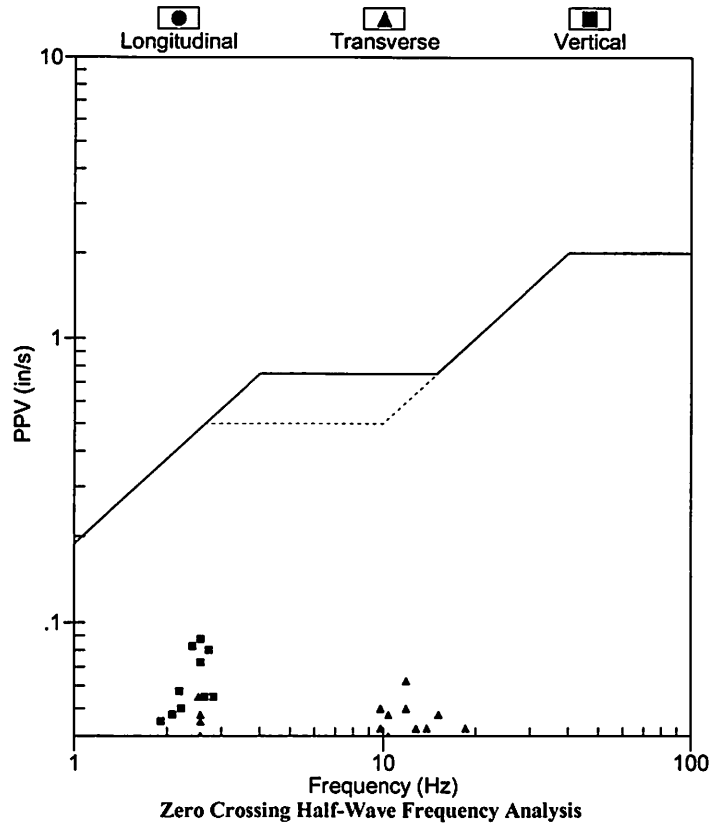
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5218 v5.25
Date: 12/21/2018 11:31:16
Event No: 15
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5218 Event: 15



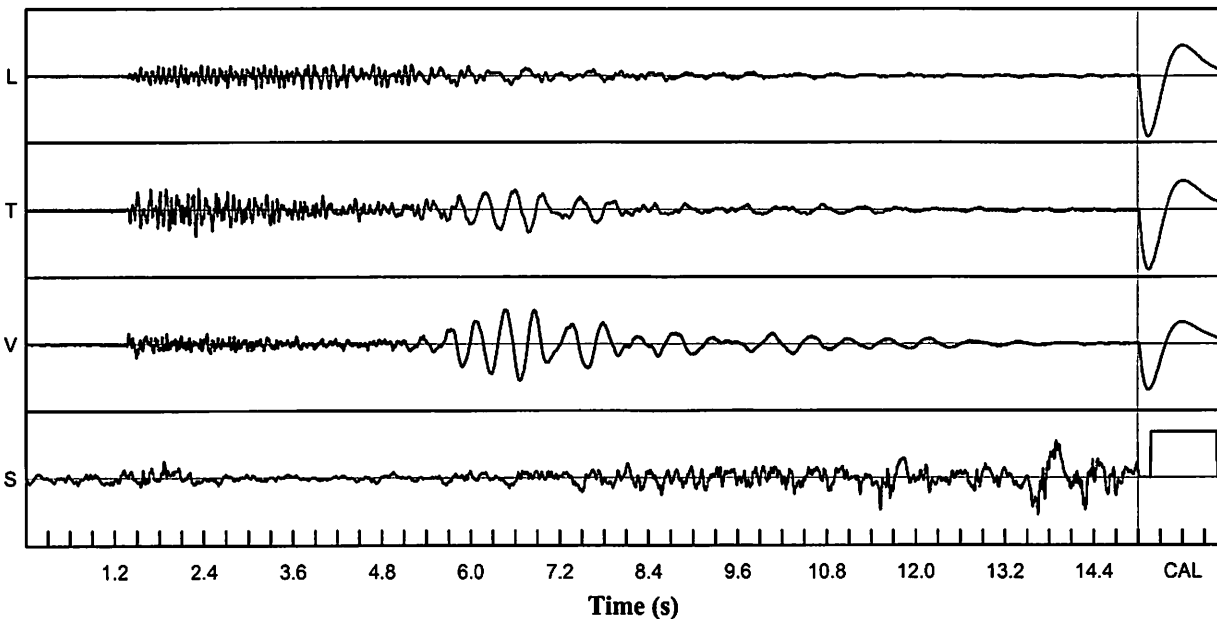
Additional Info:

Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0045 PSI

Velocity Waveform

SN: 5218 Event: 15



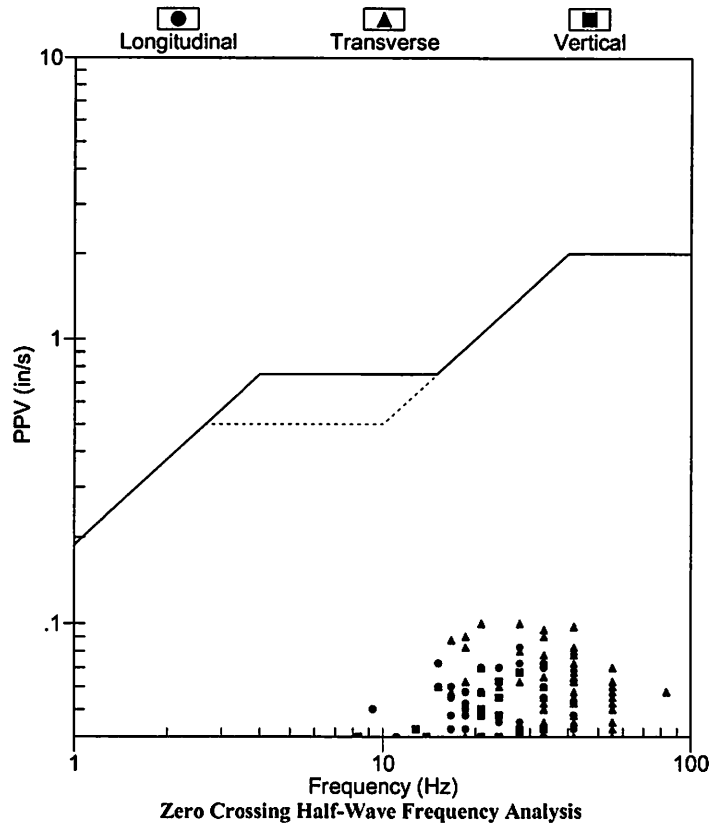
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 12/10/2018 13:16:40
Event No: 10
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 10



	Summary Data		
	L	T	V
PPV (in/s)	0.083	0.100	0.068
FREQ (Hz)	27.8	20.8	9.3
PD (.001")	1.07	1.21	2.34
PPA (g)	0.046	0.059	0.033
Peak Vector Sum :	0.135 in/s		
Peak Air Pressure:	101 db		
	0.00032 PSI @ 18.5 Hz		

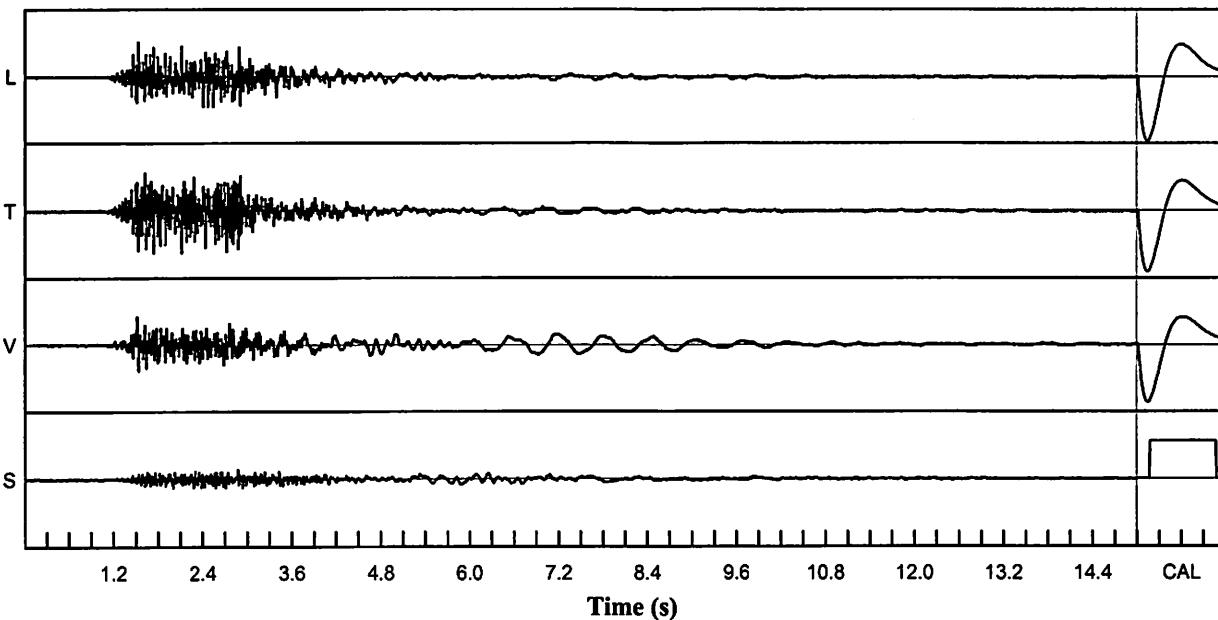
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 10



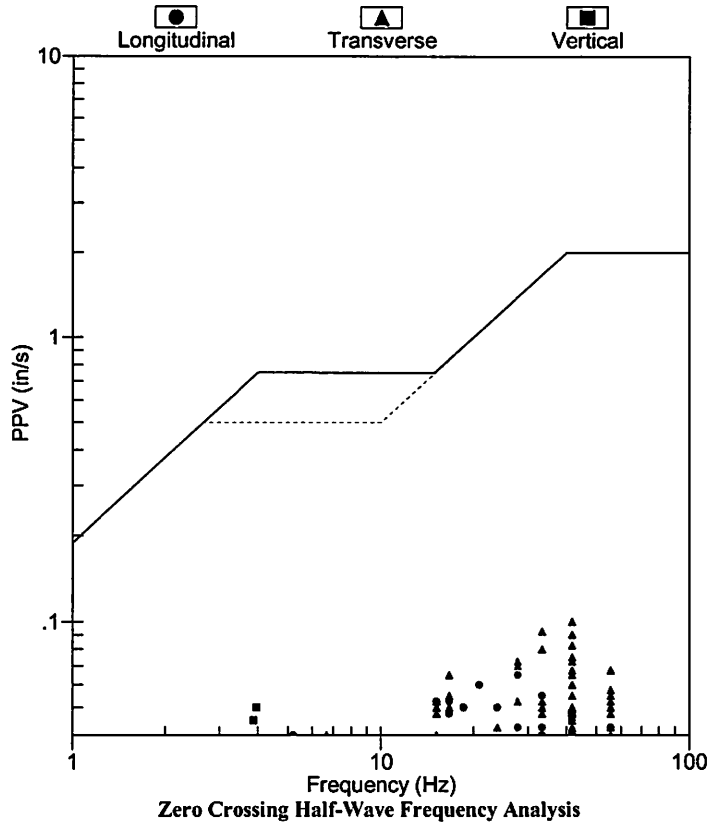
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 12/14/2018 11:31:51
Event No: 11
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 11



	Summary Data		
	L	T	V
PPV (in/s)	0.065	0.100	0.050
FREQ (Hz)	27.8	41.7	4.0
PD (.001")	0.88	1.06	2.07
PPA (g)	0.033	0.052	0.026
Peak Vector Sum :	0.110 in/s		
Peak Air Pressure:	103 db		
	0.00045 PSI @ 5.7 Hz		

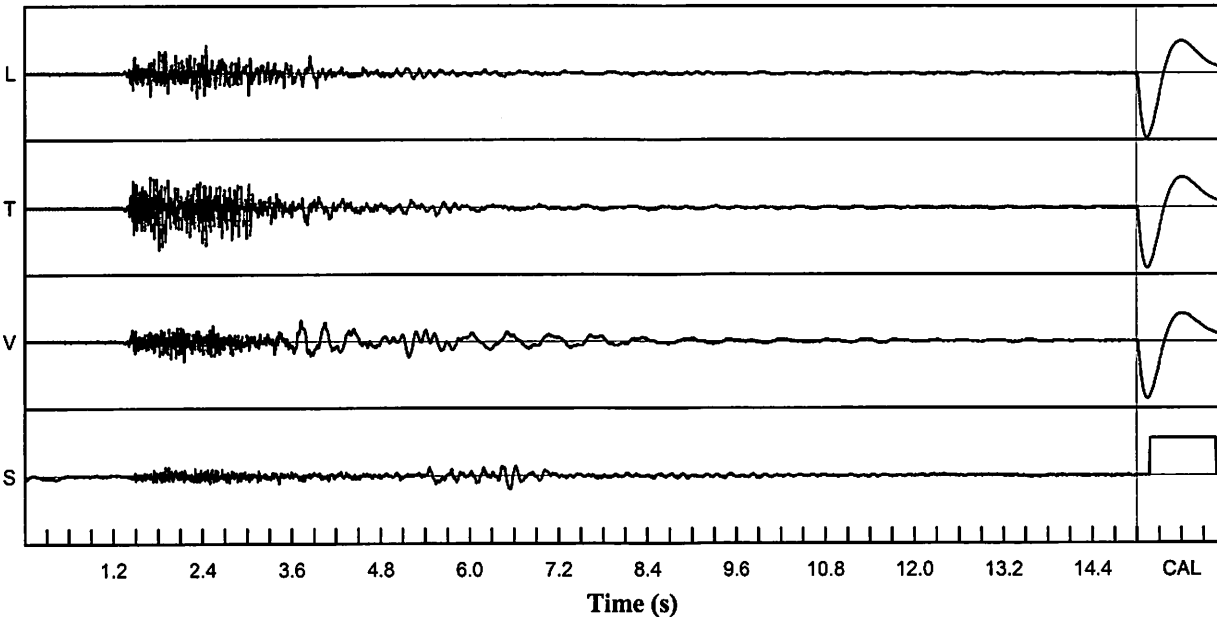
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 11



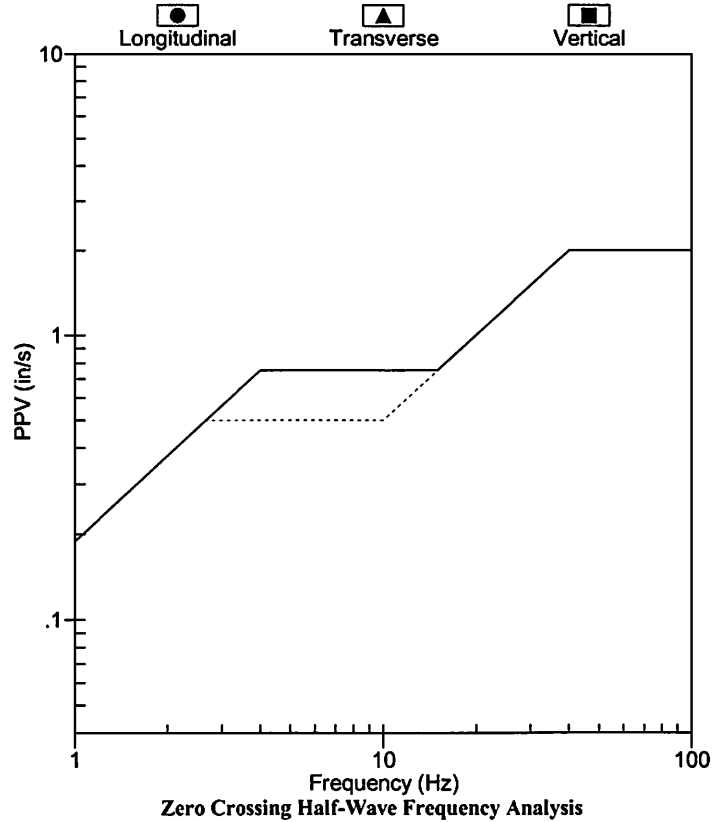
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 12/18/2018 11:32:40
Event No: 12
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 12



	Summary Data		
	L	T	V
PPV (in/s)	0.013	0.008	0.033
FREQ (Hz)	1.7	2.3	1.7
PD (.001")	0.94	0.54	3.14
PPA (g)	0.007	0.007	0.007
Peak Vector Sum :	0.035 in/s		
Peak Air Pressure:	84 db		
	0.00011 PSI @ 1.3 Hz		

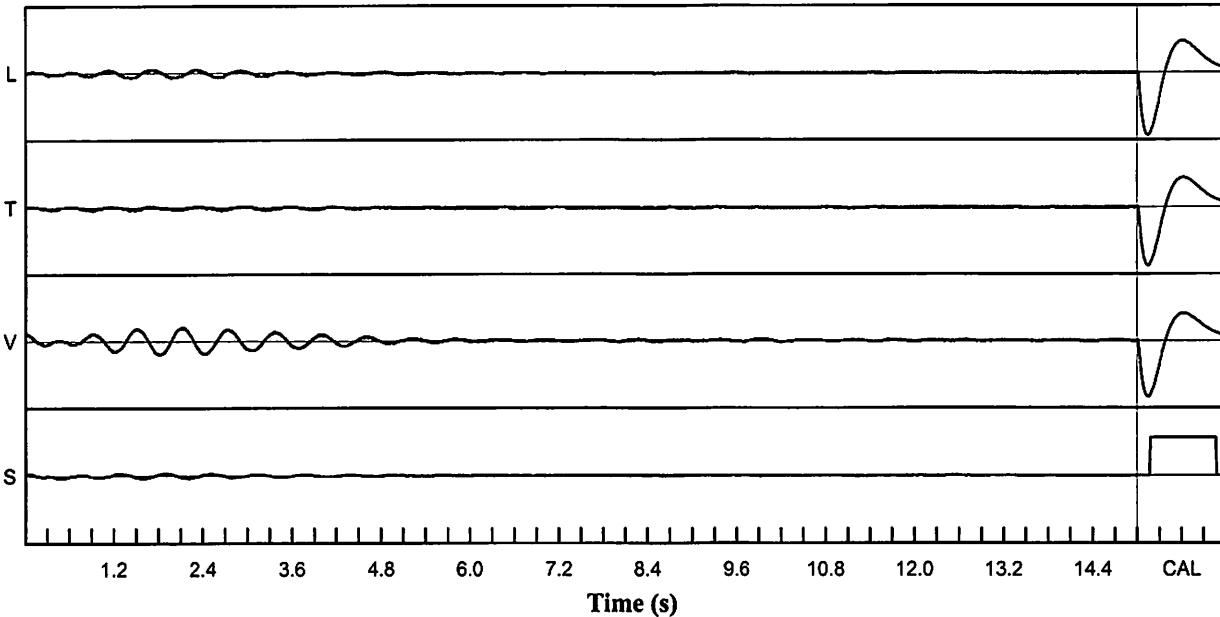
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 12



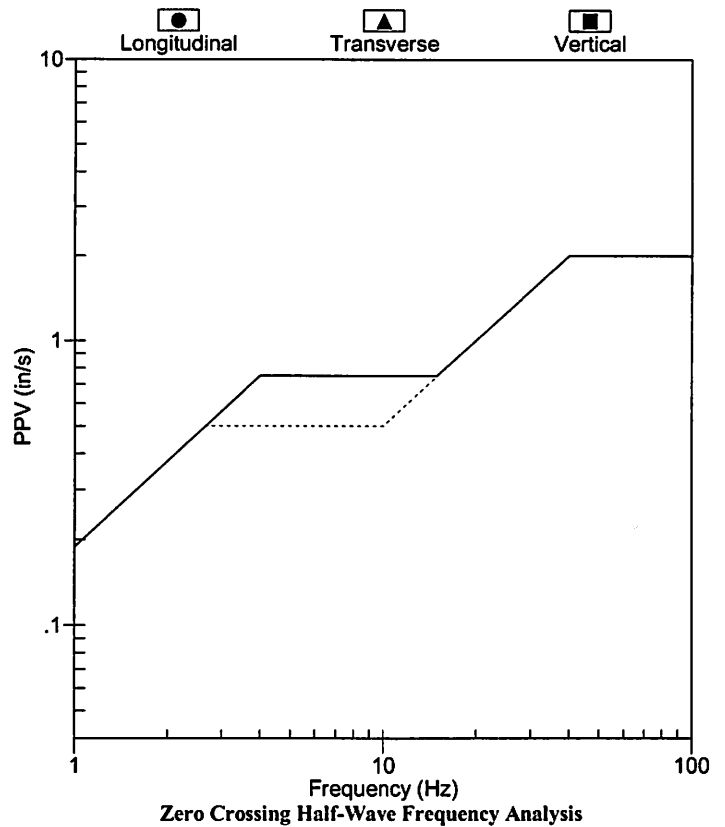
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 12/20/2018 11:32:23
Event No: 13
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 13



	Summary Data		
	L	T	V
PPV (in/s)	0.008	0.013	0.033
FREQ (Hz)	3.6	2.0	1.8
PD (.001")	0.53	0.93	3.07
PPA (g)	0.007	0.007	0.007
Peak Vector Sum :	0.035 in/s		
Peak Air Pressure:	105 db		
	0.00061 PSI @ 8.8 Hz		

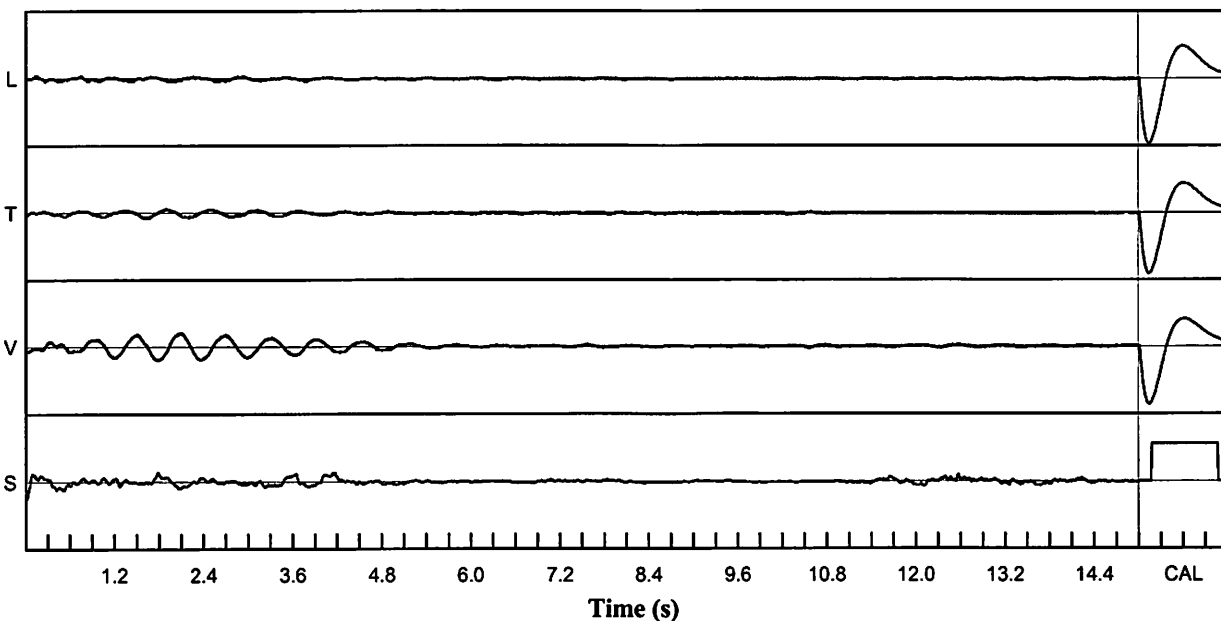
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 13



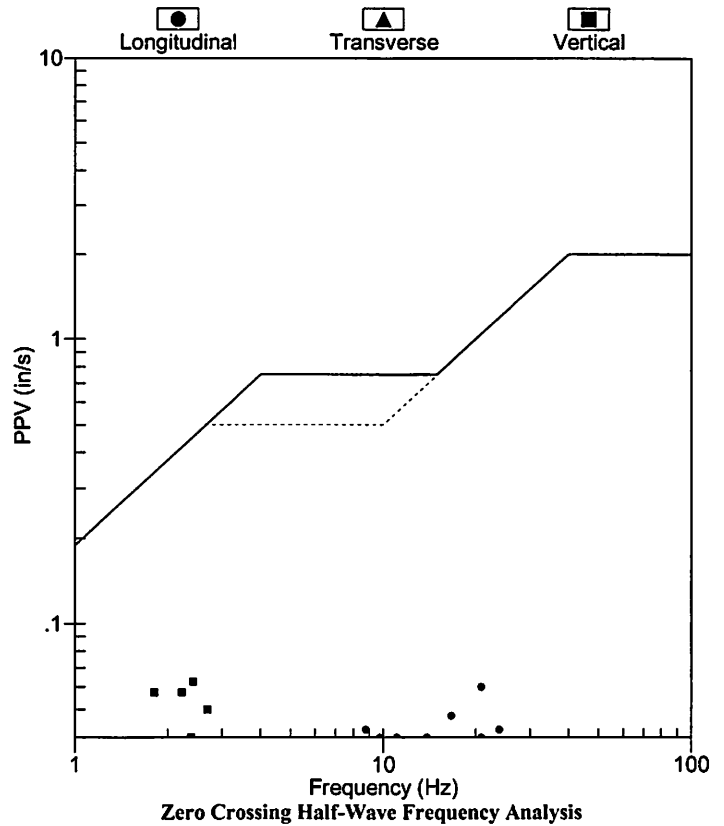
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5149 v3.67
Date: 12/21/2018 11:33:01
Event No: 14
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5149 Event: 14



	Summary Data		
	L	T	V
PPV (in/s)	0.060	0.038	0.063
FREQ (Hz)	20.8	6.0	2.4
PD (.001")	1.79	1.43	4.60
PPA (g)	0.020	0.013	0.013
Peak Vector Sum :	0.065 in/s		
Peak Air Pressure:	113 db		
	0.00132 PSI @ 6.4 Hz		

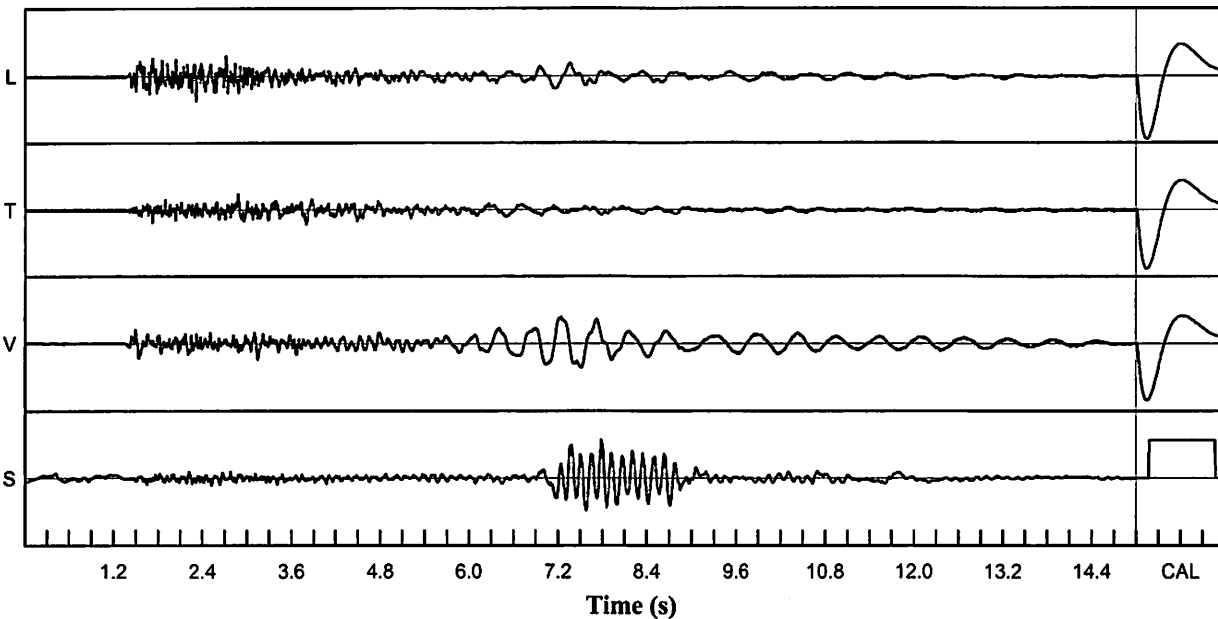
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5149 Event: 14



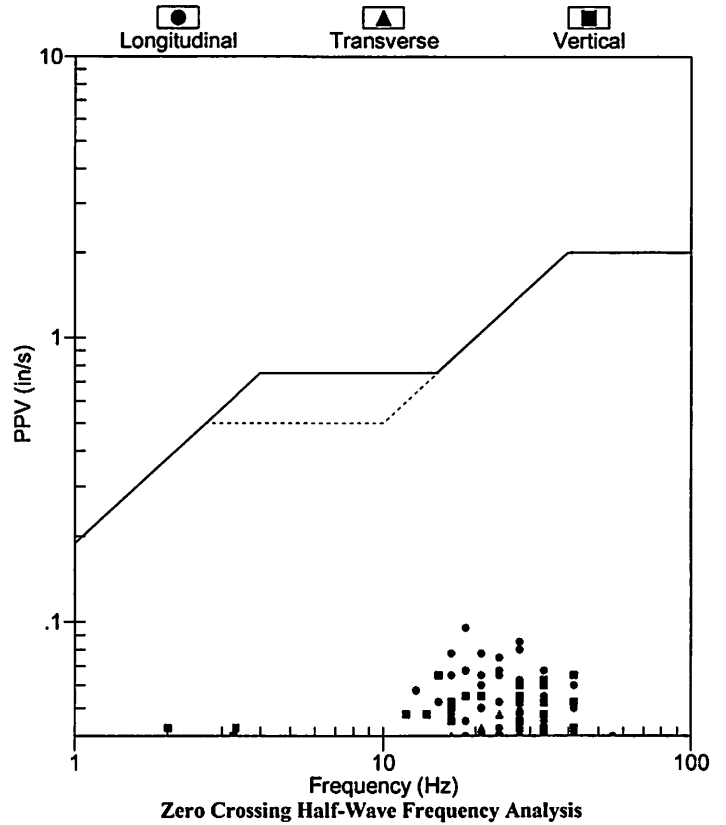
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/10/2018 13:14:20
Event No: 10
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 10



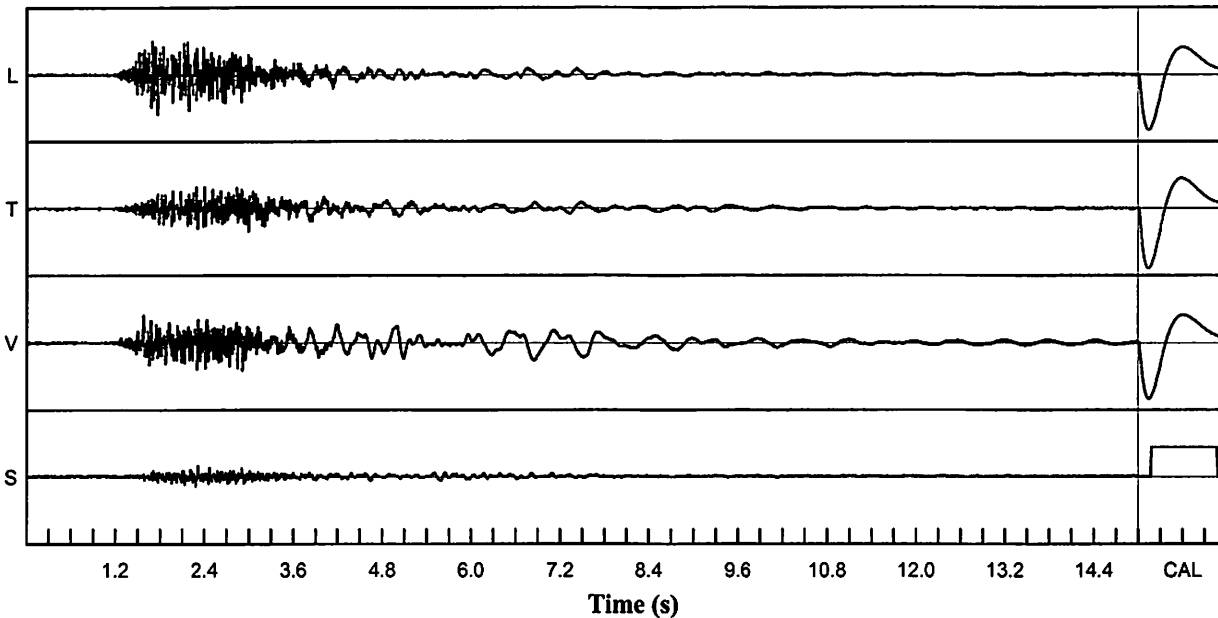
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 10



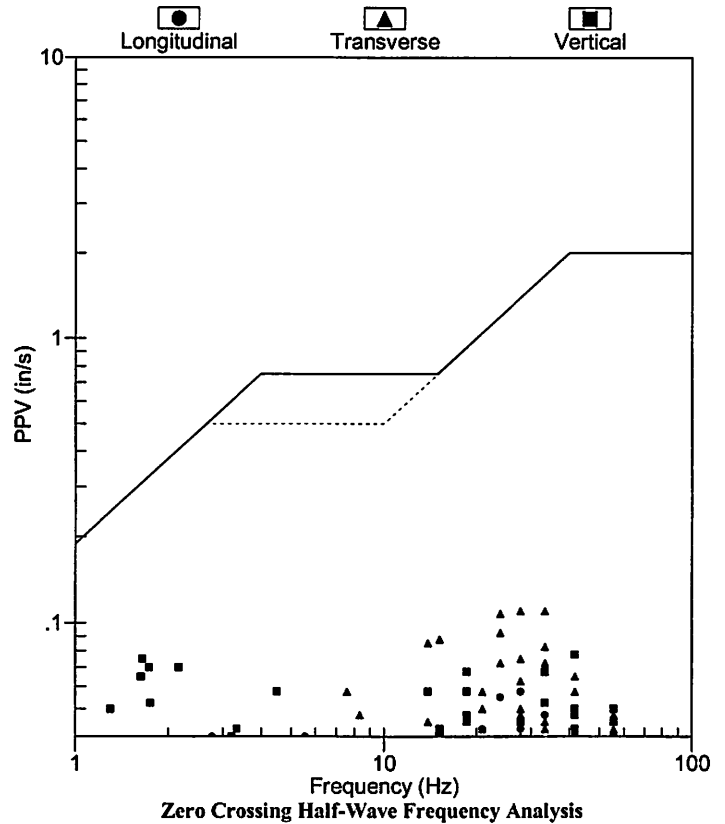
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/11/2018 11:29:52
Event No: 11
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 11



	Summary Data		
	L	T	V
PPV (in/s)	0.058	0.110	0.078
FREQ (Hz)	27.8	27.8	41.7
PD (.001")	2.04	2.73	6.36
PPA (g)	0.033	0.065	0.059
Peak Vector Sum :	0.113 in/s		
Peak Air Pressure:	99 db		
	0.00043 PSI @ 2.2 Hz		

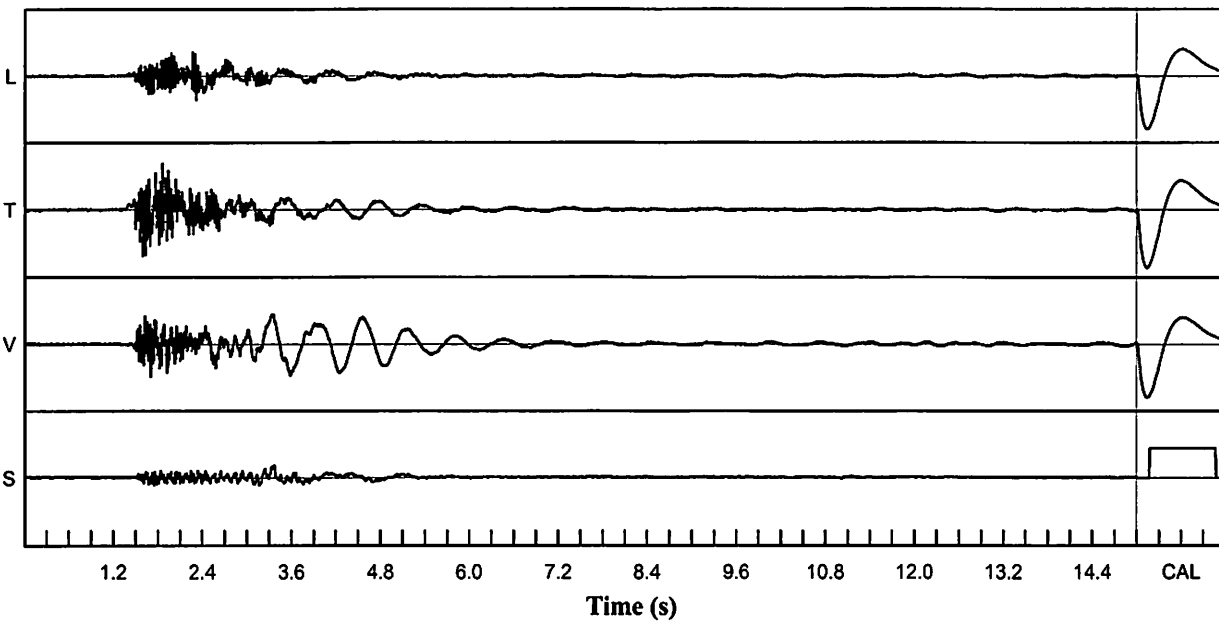
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 11



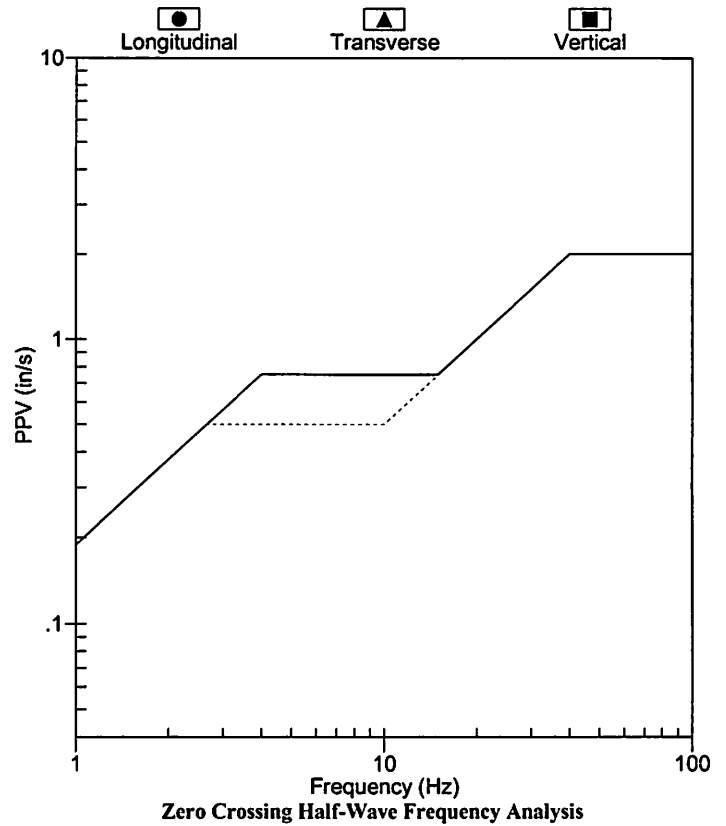
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/12/2018 11:29:46
Event No: 12
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 12



	Summary Data		
	L	T	V
PPV (in/s)	0.015	0.015	0.038
FREQ (Hz)	3.8	2.9	2.1
PD (.001")	0.79	0.91	2.69
PPA (g)	0.007	0.007	0.007
Peak Vector Sum :	0.040 in/s		
Peak Air Pressure:	103 db		
	0.00050 PSI @ 5.1 Hz		

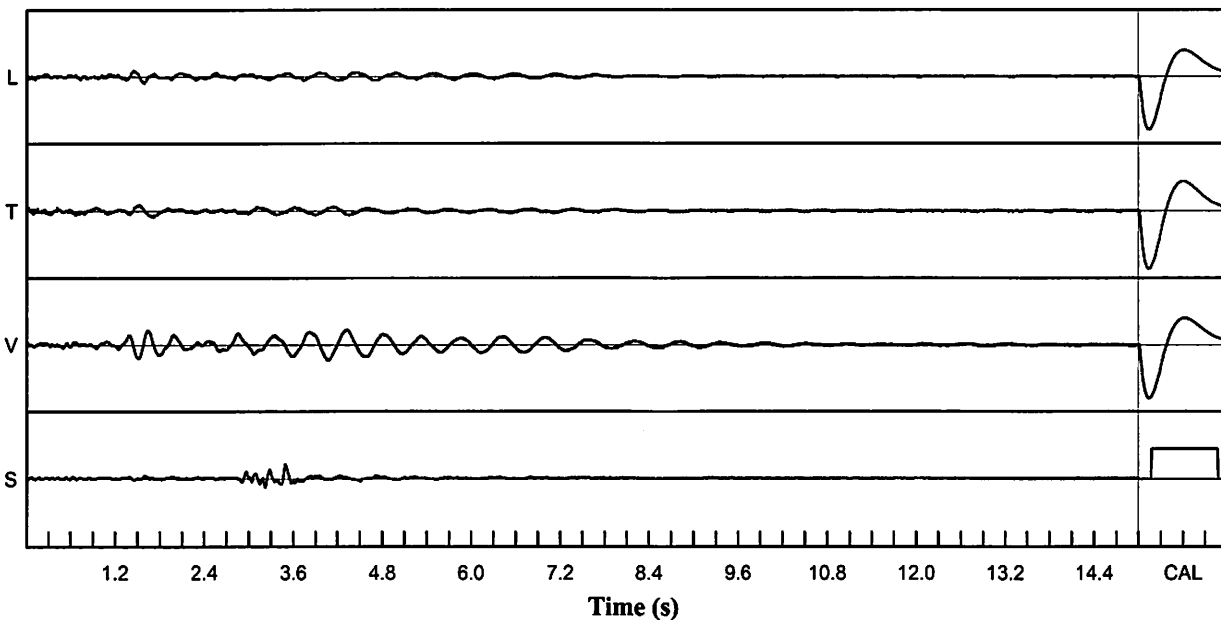
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 12



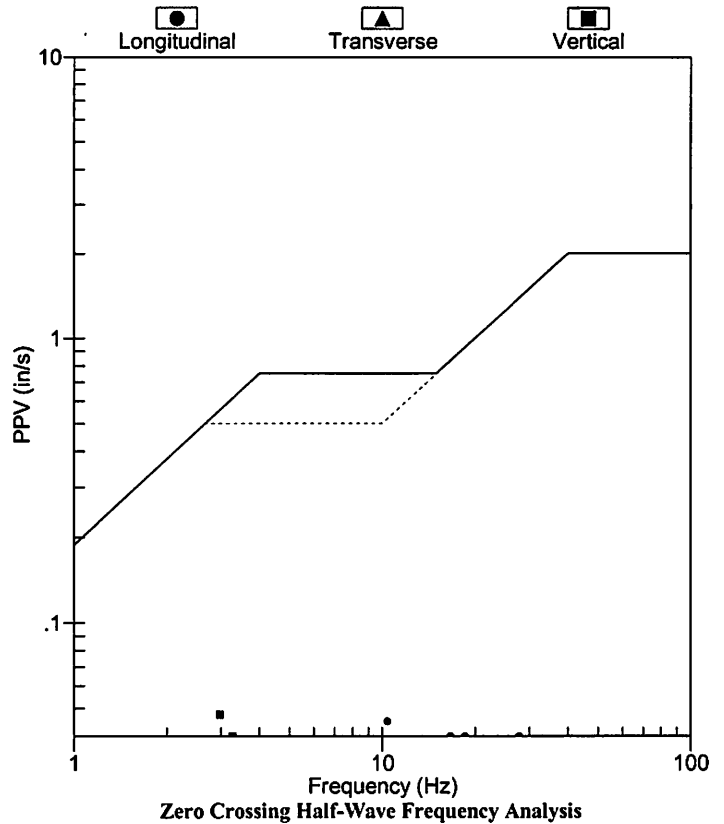
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/14/2018 11:29:28
Event No: 13
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 13



Additional Info:

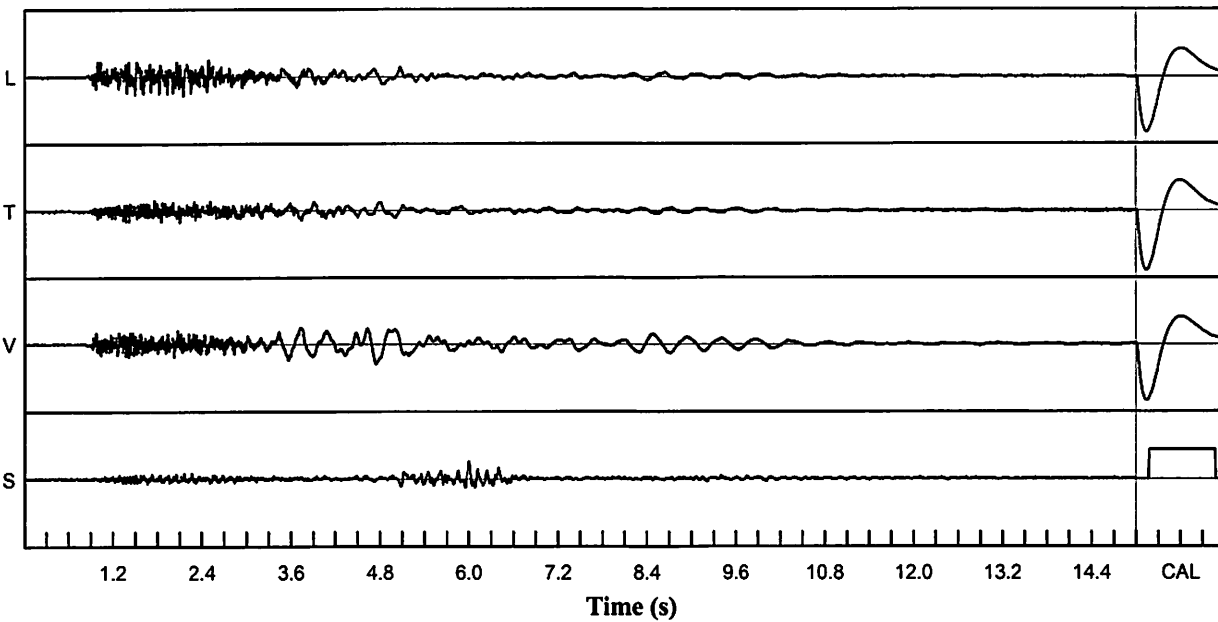
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 13



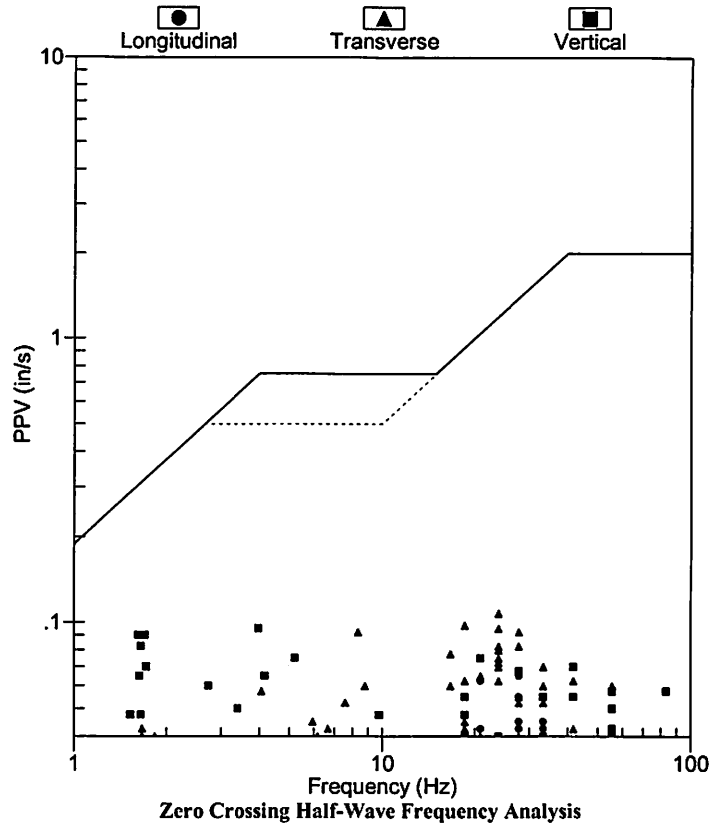
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/18/2018 11:30:03
Event No: 14
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 14



	Summary Data		
	L	T	V
PPV (in/s)	0.065	0.108	0.095
FREQ (Hz)	27.8	23.8	4.0
PD (.001")	1.44	3.15	9.02
PPA (g)	0.046	0.065	0.078
Peak Vector Sum :	0.110 in/s		
Peak Air Pressure:	106 db		
	0.00061 PSI @ 3.5 Hz		

Additional Info:

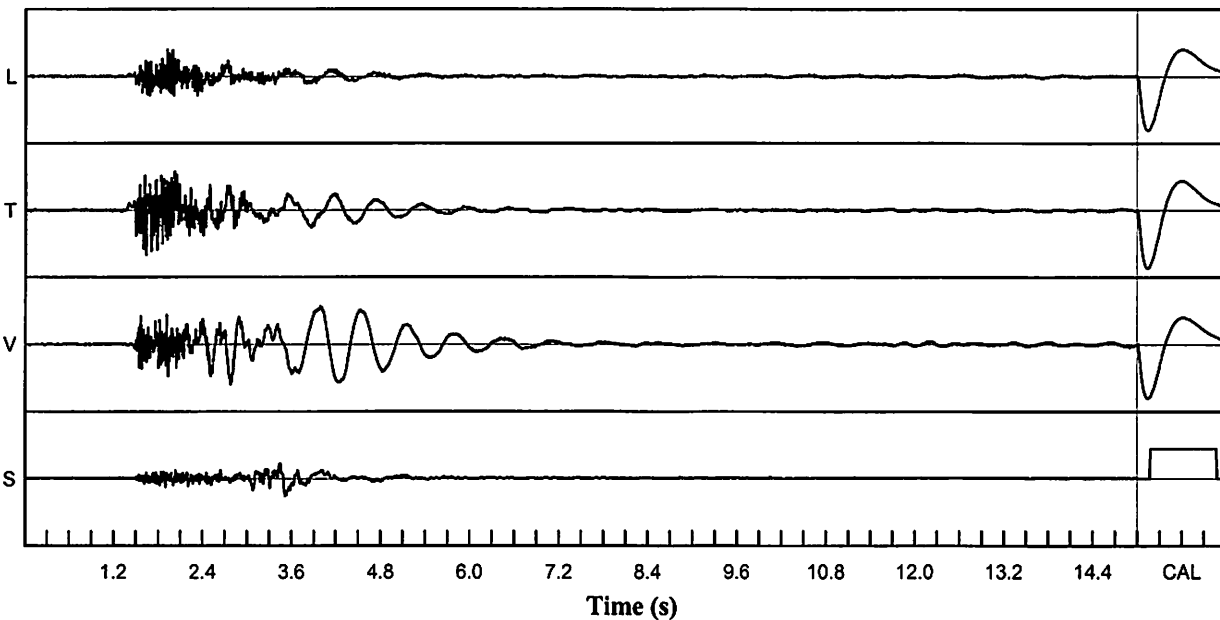
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 14



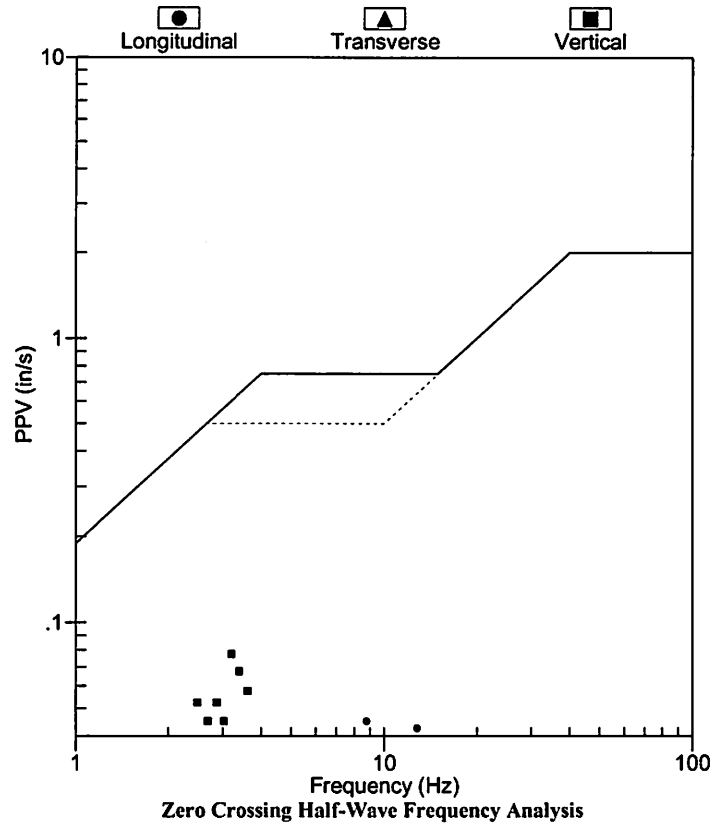
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/20/2018 11:29:45
Event No: 15
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 15



	Summary Data		
	L	T	V
PPV (in/s)	0.045	0.023	0.078
FREQ (Hz)	8.8	6.9	3.2
PD (.001")	1.36	1.03	3.66
PPA (g)	0.020	0.007	0.013
Peak Vector Sum :	0.080 in/s		
Peak Air Pressure:	110 db		
	0.00107 PSI @ 7.2 Hz		

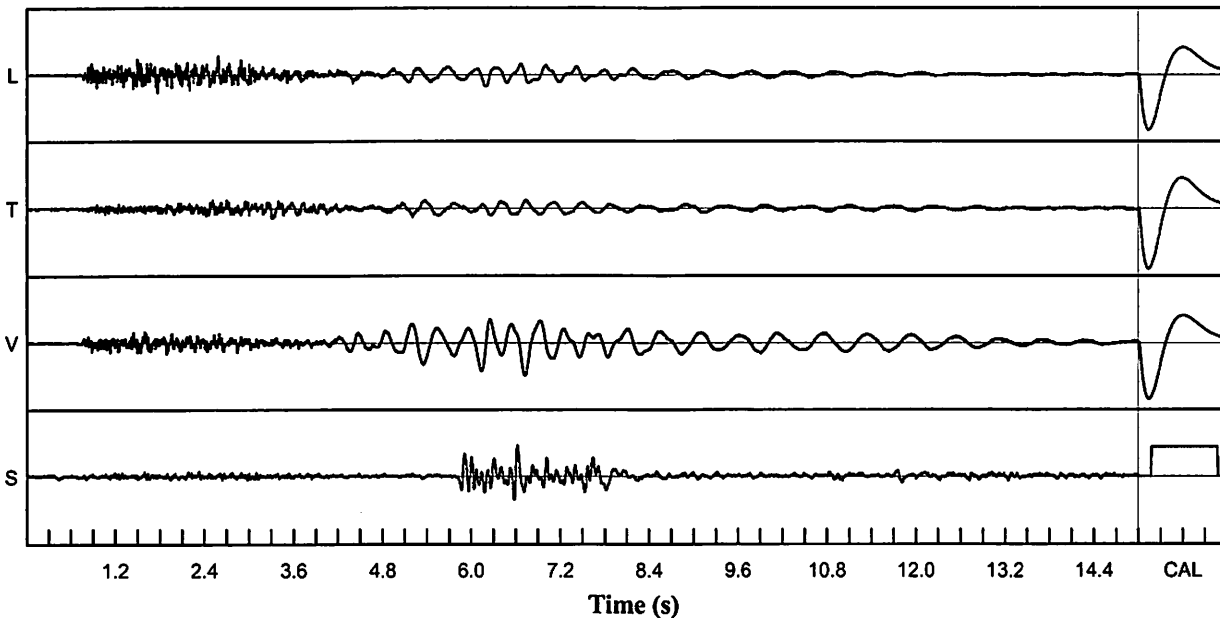
Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale
Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 15



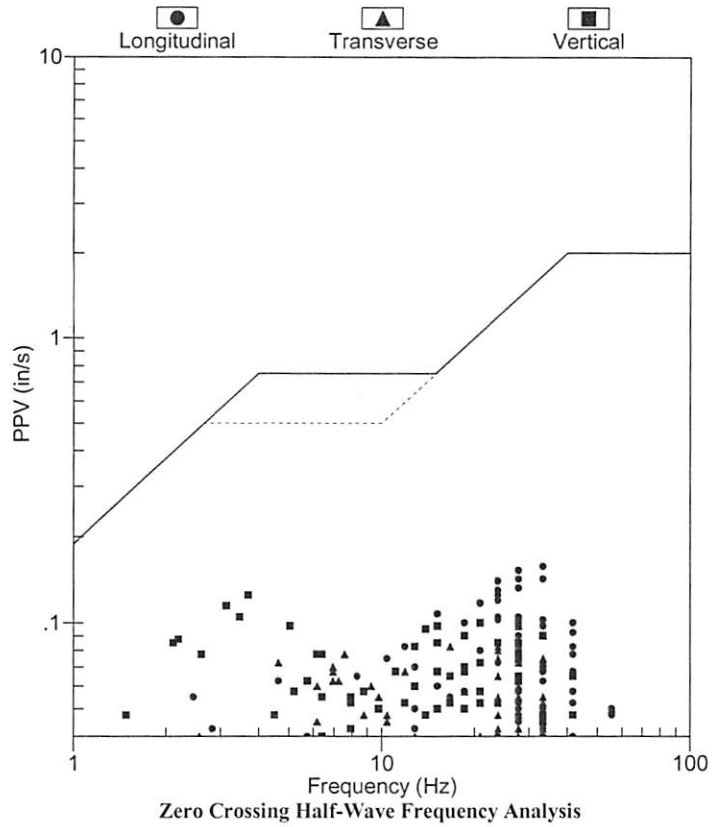
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 12/21/2018 11:30:29
Event No: 16
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

USBM Safe Blasting Levels

SN: 5148 Event: 16



	Summary Data		
	L	T	V
PPV (in/s)	0.158	0.098	0.125
FREQ (Hz)	33.3	27.8	3.7
PD (.001")	2.36	2.48	5.39
PPA (g)	0.085	0.052	0.046
Peak Vector Sum :	0.175 in/s		
Peak Air Pressure:	109 db		
	0.00100 PSI @ 5.4 Hz		

Additional Info:

Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

Time Scale: 0.300 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Velocity Waveform

SN: 5148 Event: 16

