

Miramar Siesmic Reading: White Rock Quarries.

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
2/4/2019	1:36 PM	0.095
2/6/2019	1:36 PM	0.08
2/11/2019	1:36 PM	0.085
2/15/2019	1:21 PM	0.113
2/19/2019	1:22 PM	0.115
2/22/2019	1:40 PM	0.0108
2/27/2019	11:27 AM	0.095
3/1/2019	1:23 PM	0.095

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
2/4/2019	1:31 PM	0.145
2/6/2019	1:31 PM	0.123
2/11/2019	1:31 PM	0.103
2/15/2019	1:16 PM	0.103
2/19/2019	1:16 PM	0.118
2/21/2019	1:32 PM	0.043
2/22/2019	1:35 PM	0.085
2/27/2019	11:21 AM	0.048
3/1/2019	1:16 PM	0.093

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
2/4/2019	1:32 PM	0.095
2/5/2019	11:33 AM	0.078
2/6/2019	1:33 PM	0.113
2/7/2019	11:33 AM	0.085
2/8/2019	1:33 PM	0.07
2/11/2019	1:33 PM	0.098
2/12/2019	11:33 AM	0.088
2/15/2019	1:18 PM	0.148
2/19/2019	1:18 PM	0.153
2/20/2019	11:48 AM	0.043
2/21/2019	1:34 PM	0.088
2/22/2019	1:37 PM	0.13
2/26/2019	11:34 AM	0.075
2/27/2019	11:24 AM	0.085
2/28/2019	2:04 PM	0.045

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 02/04/2019 13:31:07
Event No: 26
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

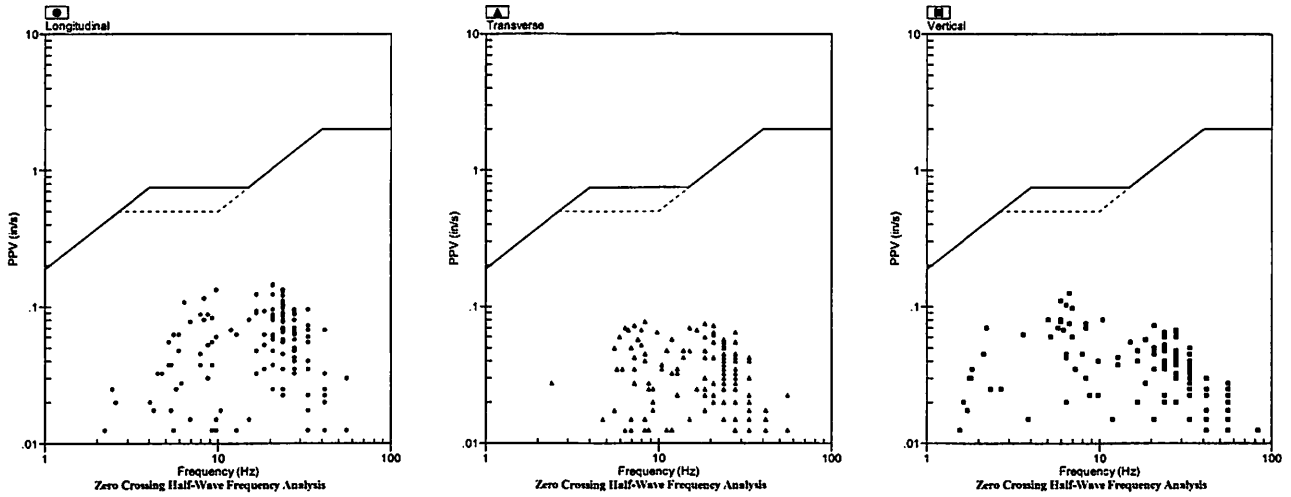
Summary Data

	L	T	V
PPV (in/s)	0.145	0.078	0.125
FREQ (Hz)	20.8	8.3	6.7
PD (.001")	2.22	1.64	3.78
PPA (g)	0.052	0.026	0.033
Peak Vector Sum:	0.148 in/s		
Peak Air Pressure:	104 db		
	0.00053 PSI @ 9.3 Hz		

Additional Info:

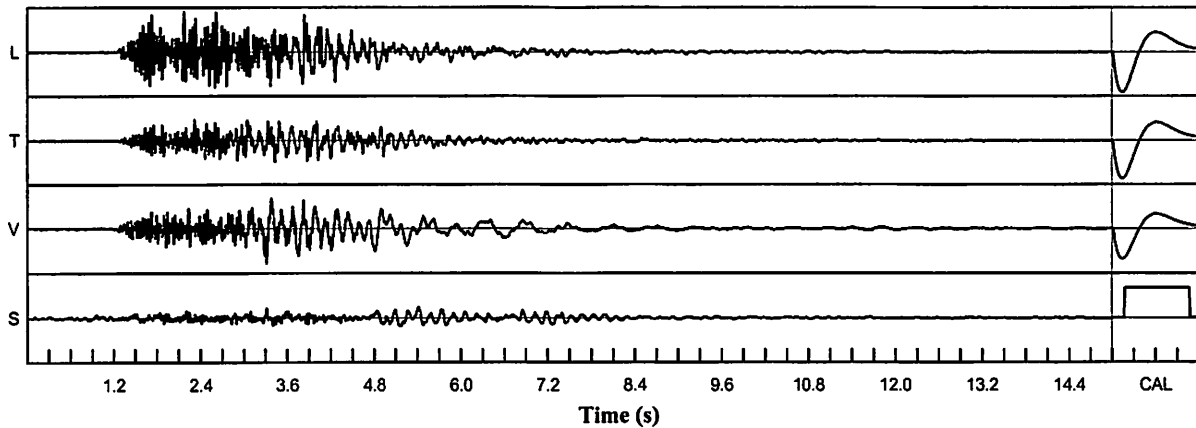
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 26



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 02/06/2019 13:31:12
Event No: 28
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

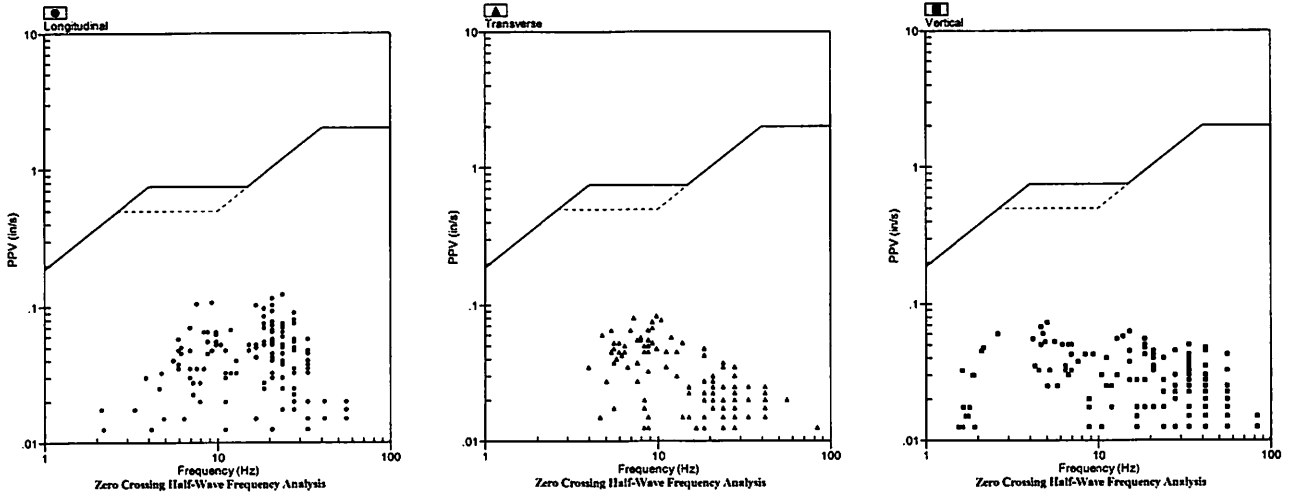
Summary Data

	L	T	V
PPV (in/s)	0.123	0.083	0.073
FREQ (Hz)	23.8	9.8	5.1
PD (.001")	2.21	1.83	3.16
PPA (g)	0.039	0.020	0.033
Peak Vector Sum:	0.125 in/s		
Peak Air Pressure:	102 db		
	0.00041 PSI @ 5.6 Hz		

Additional Info:

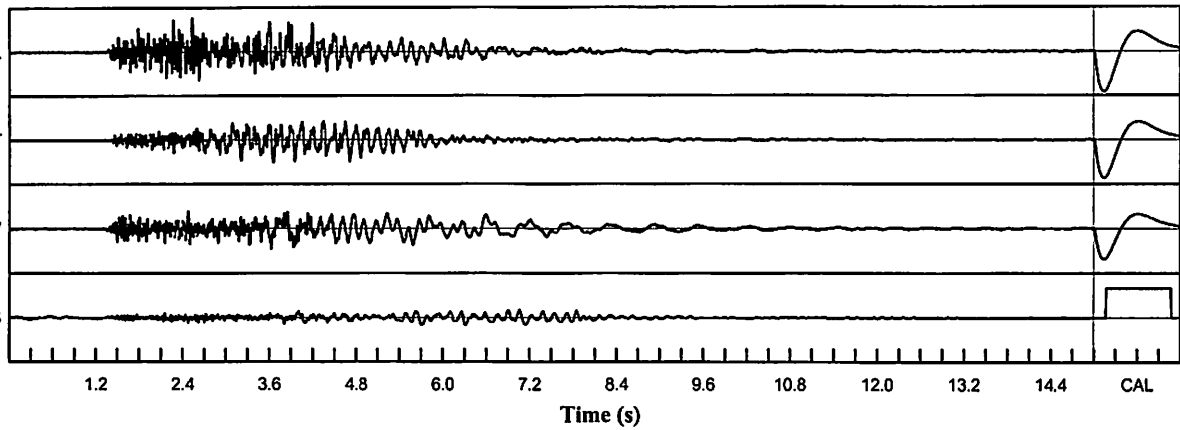
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 28



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 02/11/2019 13:31:11
Event No: 29
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

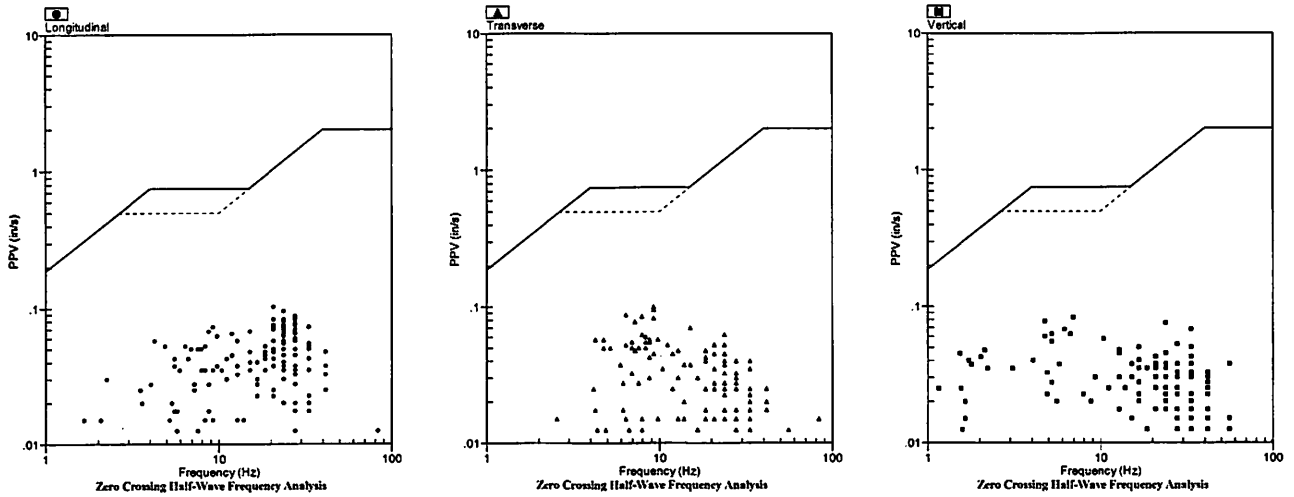
Summary Data

	L	T	V
PPV (in/s)	0.103	0.100	0.083
FREQ (Hz)	20.8	9.3	6.9
PD (.001")	1.78	2.01	3.35
PPA (g)	0.046	0.026	0.033
Peak Vector Sum:	0.133 in/s		
Peak Air Pressure:	104 db		
	0.00055 PSI @ 4.6 Hz		

Additional Info:

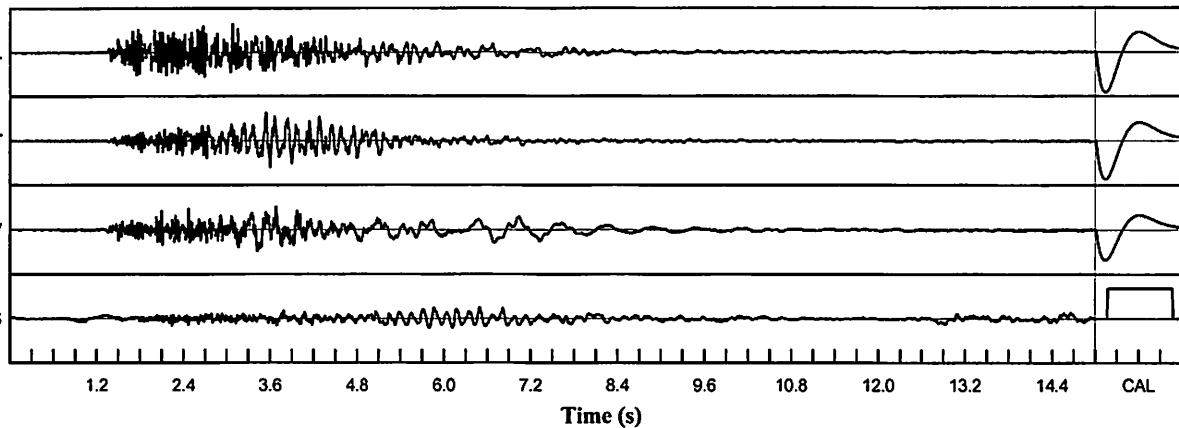
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 29



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 02/15/2019 13:16:10
Event No: 30
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

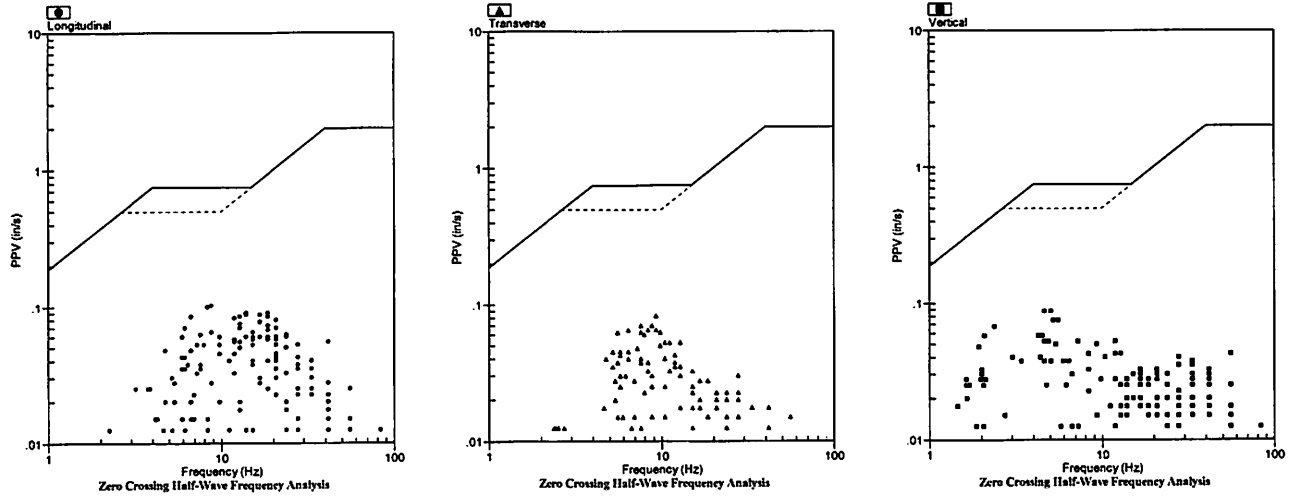
Summary Data

	L	T	V
PPV (in/s)	0.103	0.083	0.088
FREQ (Hz)	8.8	9.3	5.1
PD (.001")	2.32	1.79	3.22
PPA (g)	0.039	0.020	0.020
Peak Vector Sum:	0.135 in/s		
Peak Air Pressure:	102 db		
	0.00041 PSI @ 5.6 Hz		

Additional Info:

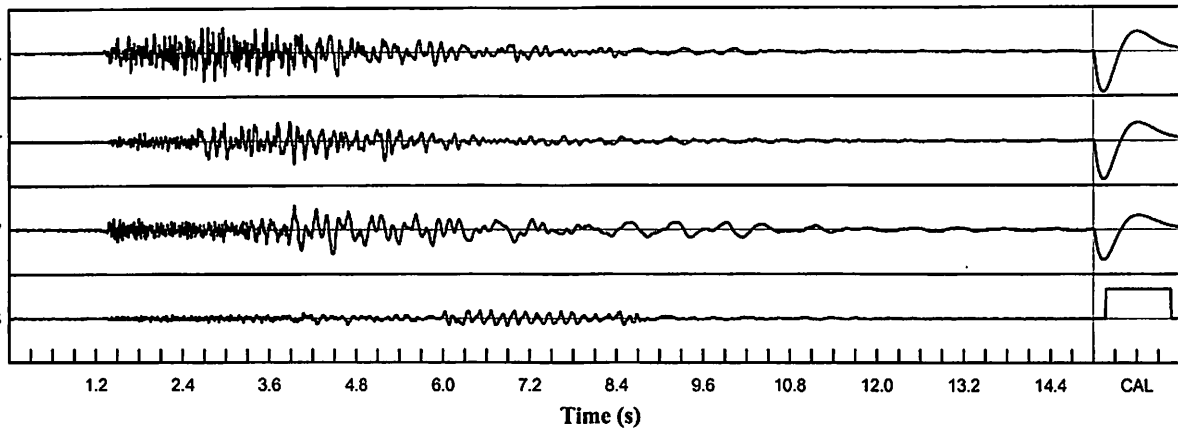
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 30



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

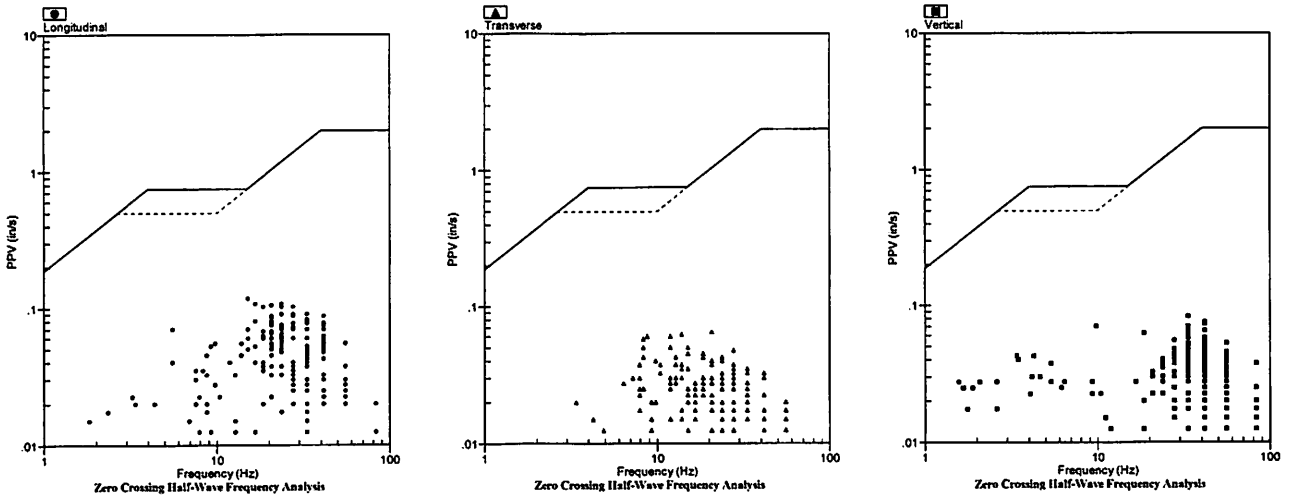
Serial No: 5218 v5.25
Date: 02/19/2019 13:16:13
Event No: 31
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.118	0.065	0.083
FREQ (Hz)	15.2	20.8	33.3
PD (.001")	1.68	1.60	2.30
PPA (g)	0.052	0.026	0.046
Peak Vector Sum:	0.130 in/s		
Peak Air Pressure:	103 db		
	0.00045 PSI @ 33.3 Hz		

Additional Info:

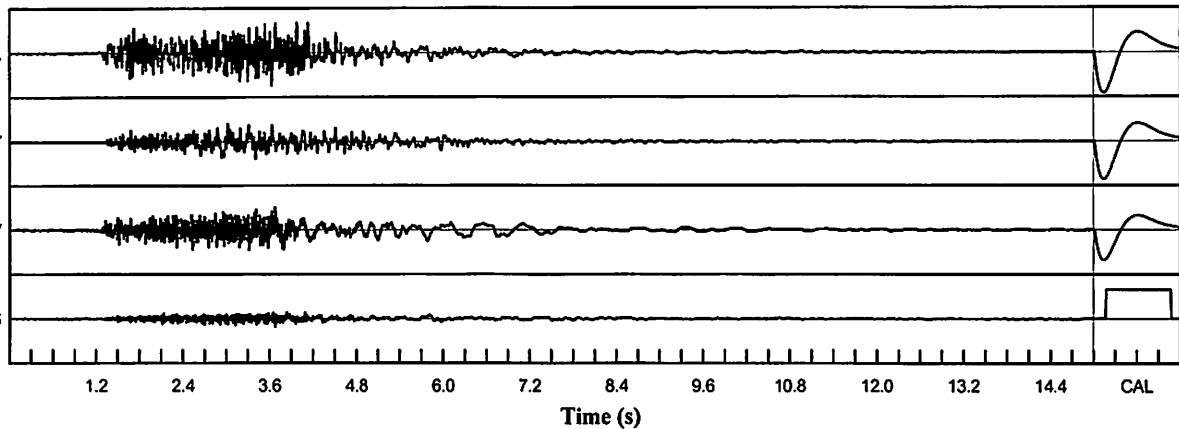
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 31



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 02/21/2019 13:32:13
Event No: 33
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

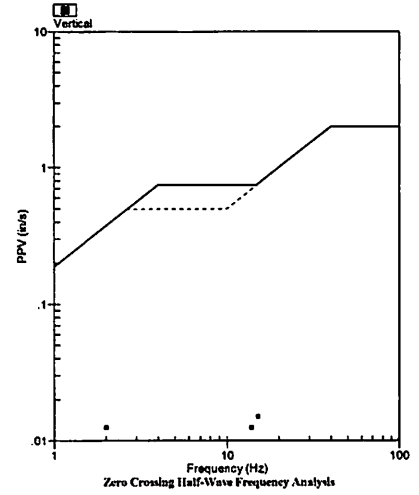
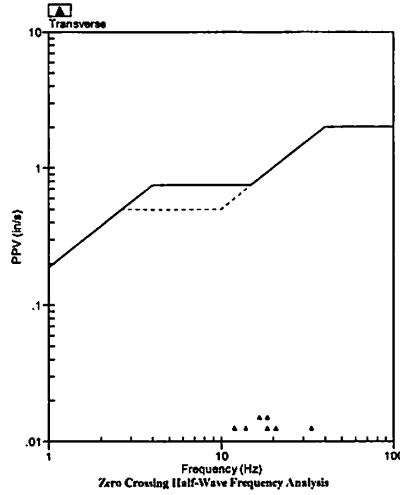
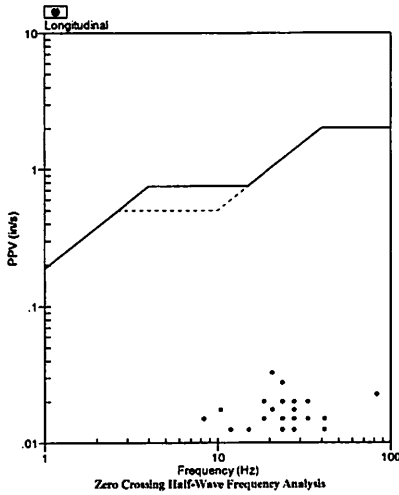
Summary Data

	L	T	V
PPV (in/s)	0.043	0.015	0.020
FREQ (Hz)	20.8	16.7	23.8
PD (.001")	0.64	0.43	0.76
PPA (g)	0.020	0.007	0.007
Peak Vector Sum:	0.043 in/s		
Peak Air Pressure:	102 db		
	0.00043 PSI @ 6.2 Hz		

Additional Info:

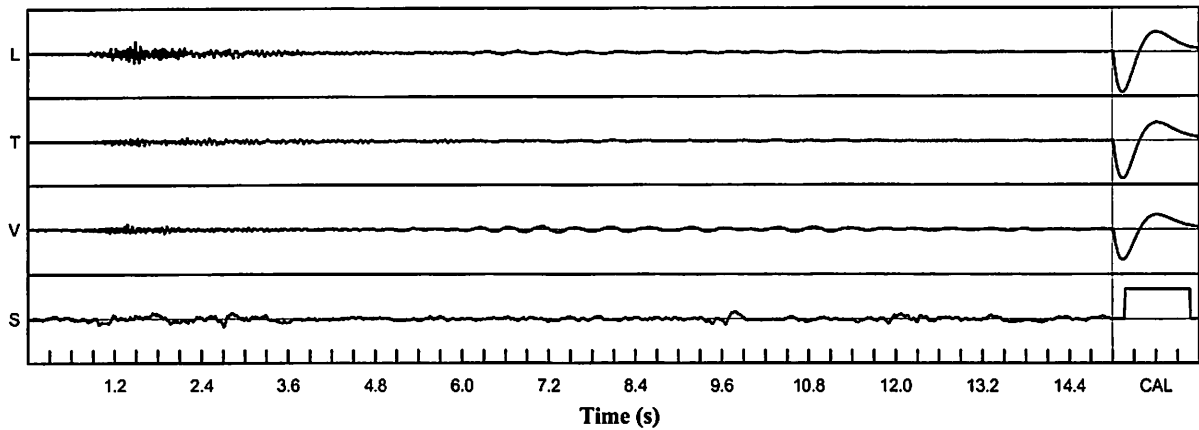
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 33



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

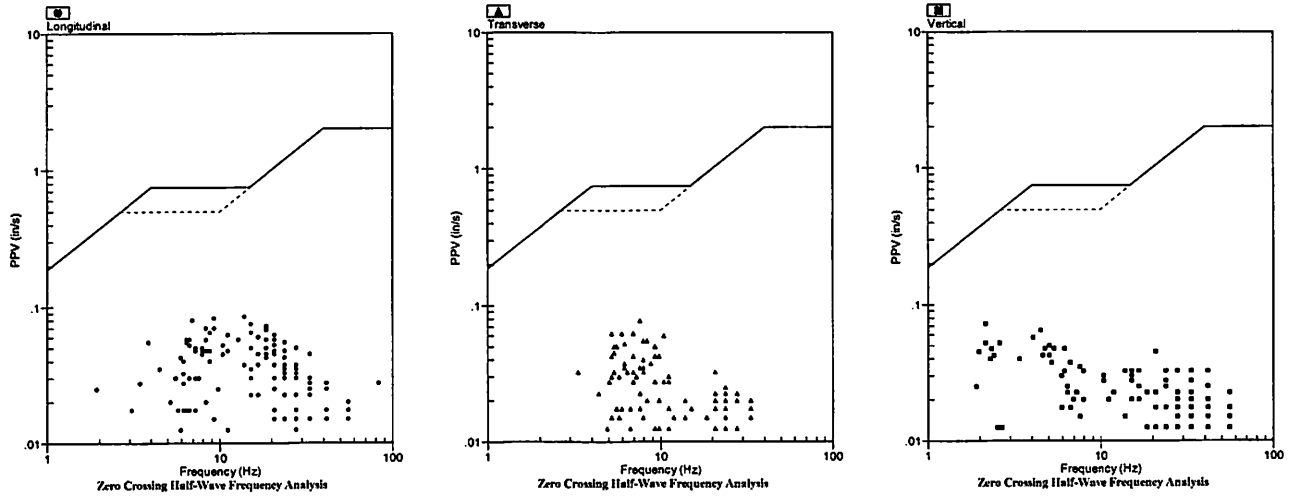
Serial No: 5218 v5.25
Date: 02/22/2019 13:34:34
Event No: 34
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.085	0.078	0.073
FREQ (Hz)	13.9	7.6	2.2
PD (.001")	2.40	1.84	3.94
PPA (g)	0.033	0.013	0.026
Peak Vector Sum:	0.093 in/s		
Peak Air Pressure:	103 db		
	0.00048 PSI @ 5.4 Hz		

Additional Info:

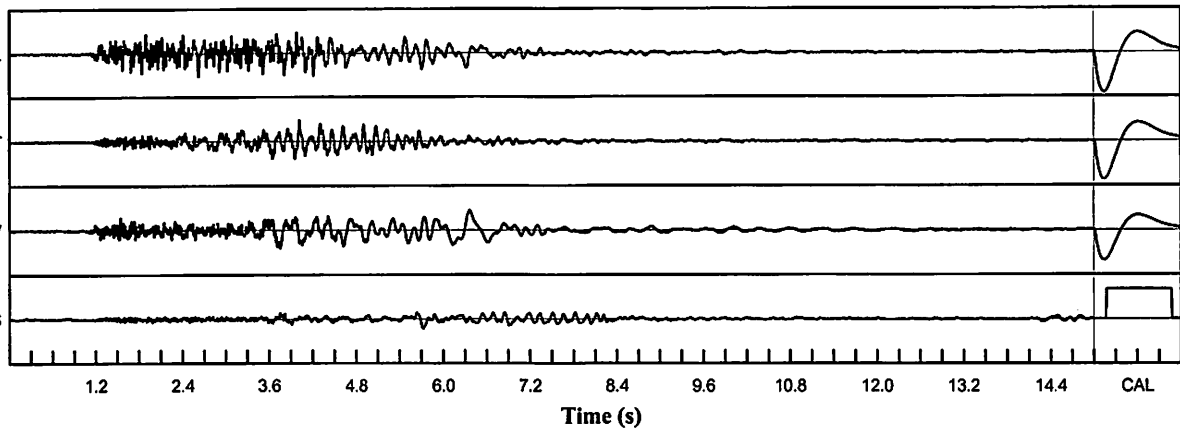
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 34



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

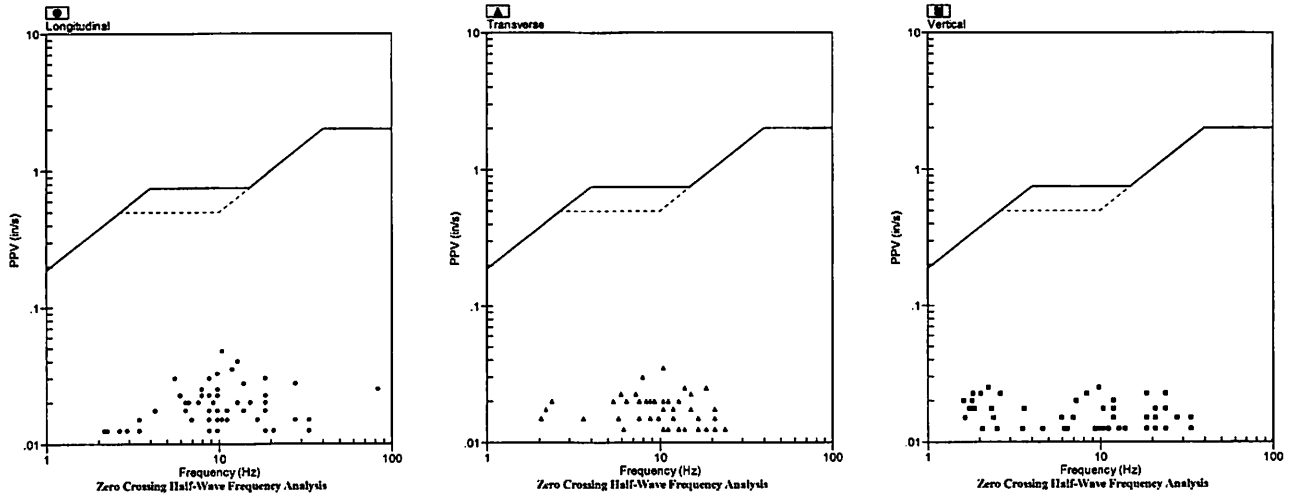
Serial No: 5218 v5.25
Date: 02/27/2019 11:21:20
Event No: 35
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.048	0.035	0.025
FREQ (Hz)	10.4	10.4	9.8
PD (.001")	1.00	1.09	1.98
PPA (g)	0.013	0.007	0.013
Peak Vector Sum:	0.048 in/s		
Peak Air Pressure:	104 db		
	0.00053 PSI @ 5.4 Hz		

Additional Info:

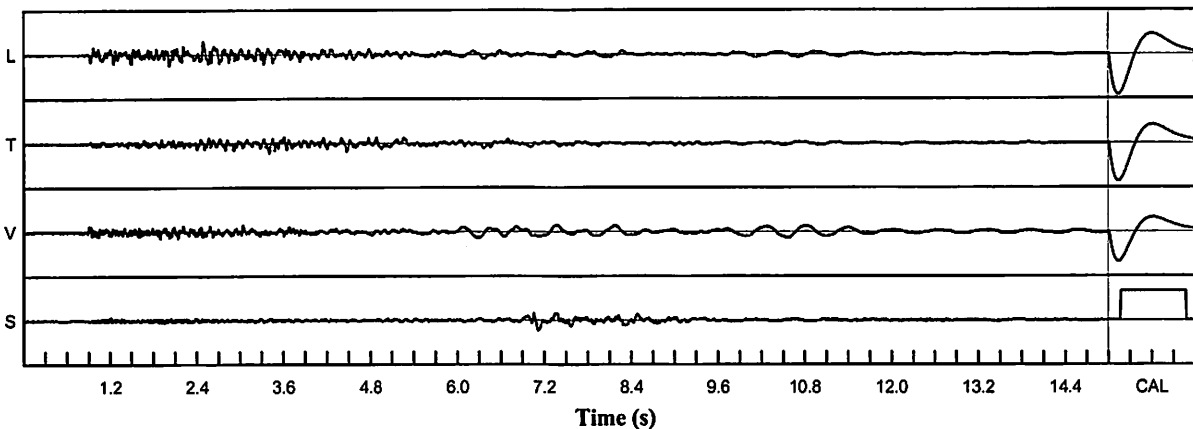
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 35



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.25
Date: 03/01/2019 13:16:19
Event No: 36
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

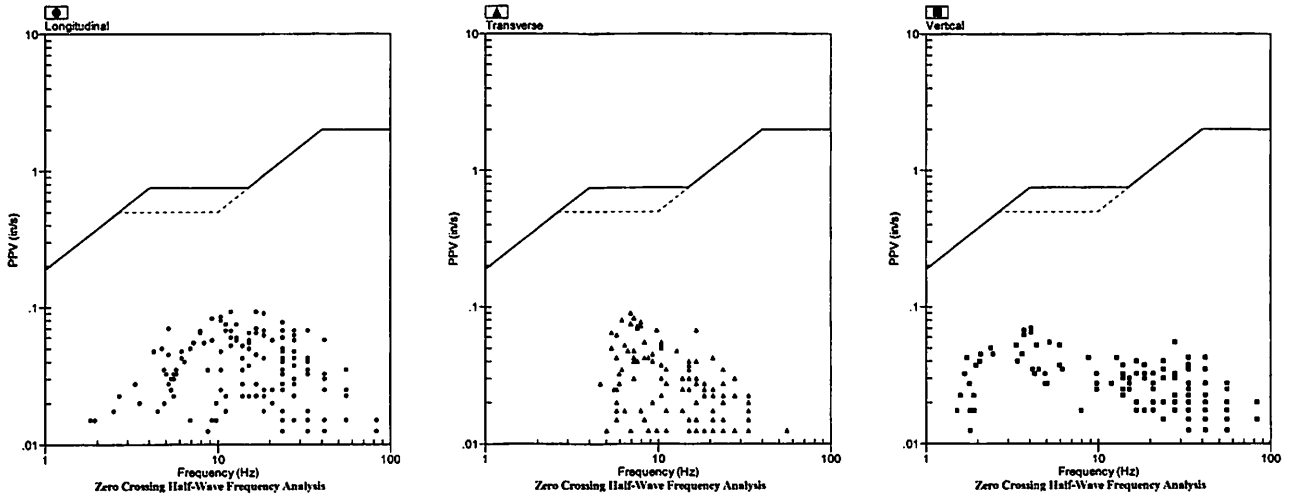
Summary Data

	L	T	V
PPV (in/s)	0.093	0.090	0.070
FREQ (Hz)	11.9	6.9	4.1
PD (.001")	1.93	2.49	3.01
PPA (g)	0.039	0.026	0.026
Peak Vector Sum:	0.103 in/s		
Peak Air Pressure:	103 db		
	0.00046 PSI @ 4.1 Hz		

Additional Info:

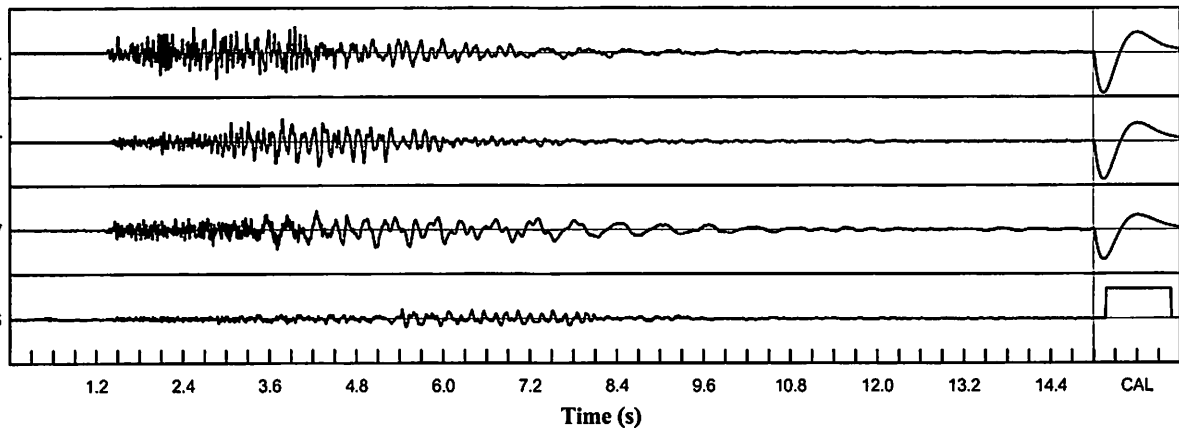
Shaketable Calibrated: 01/22/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 36



Velocity Waveform Graph Scale

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

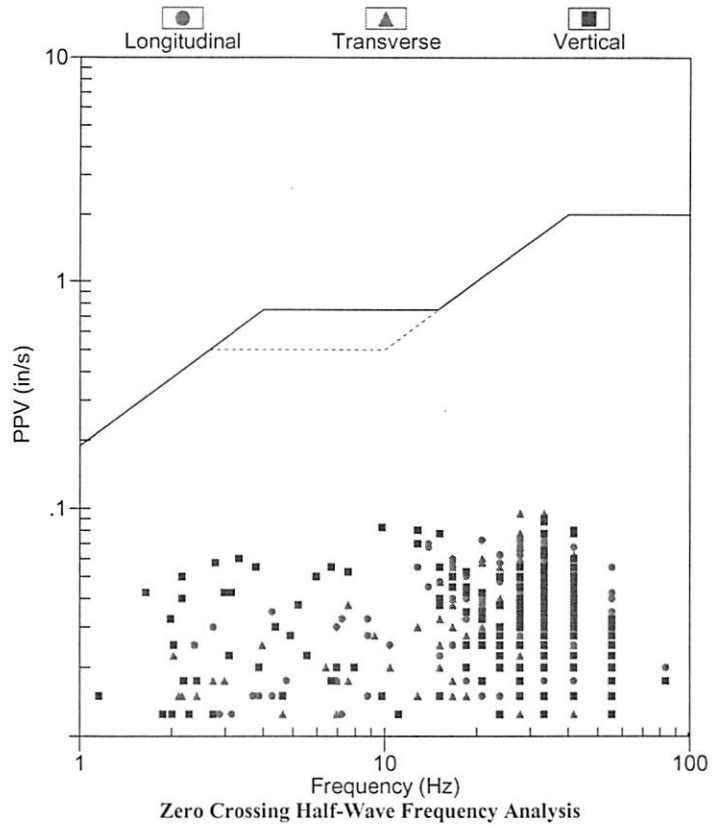
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/04/2019 13:32:26
Event No: 32
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: 32



	Summary Data		
	L	T	V
PPV (in/s)	0.078	0.095	0.090
FREQ (Hz)	33.3	27.8	33.3
PD (.001")	1.32	1.22	4.38
PPA (g)	0.039	0.052	0.046
Peak Vector Sum :	0.118 in/s		
Peak Air Pressure:	95 db		
	0.00032 PSI @ 13.9 Hz		

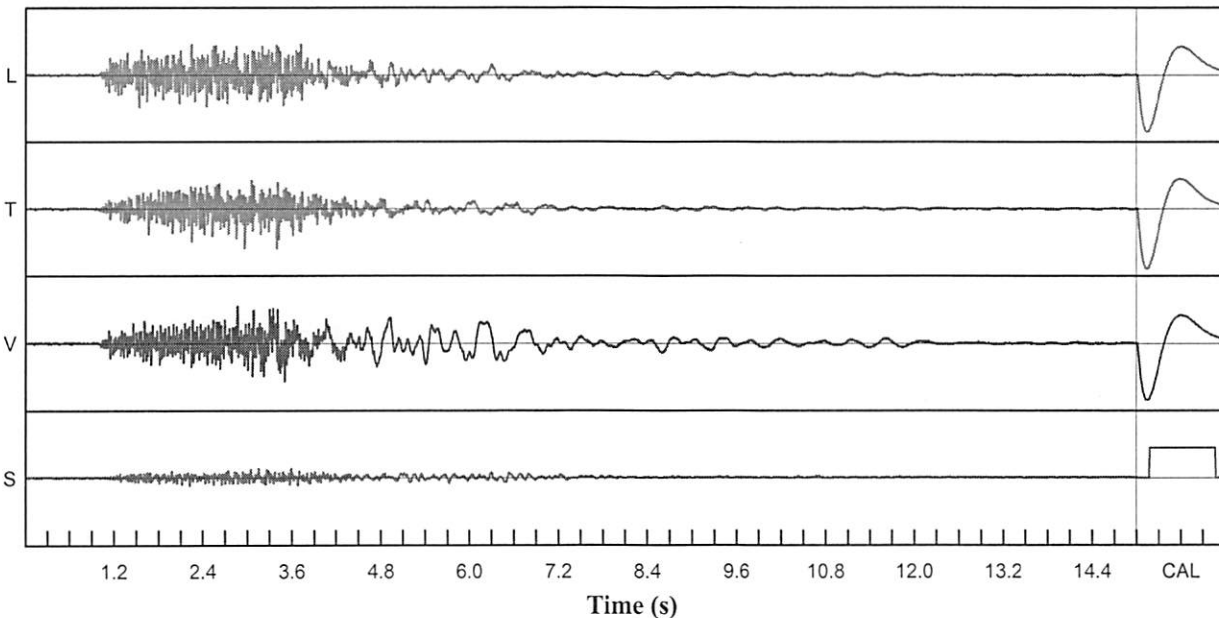
Additional Info:

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: 32



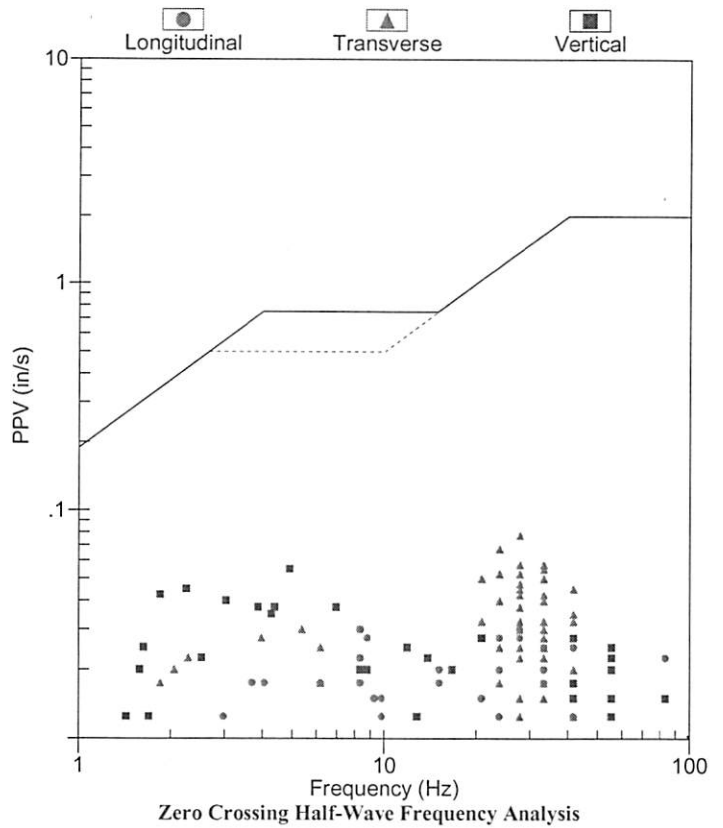
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/05/2019 11:33:02
Event No: 33
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: 33



	Summary Data		
	L	T	V
PPV (in/s)	0.038	0.078	0.055
FREQ (Hz)	33.3	27.8	4.9
PD (.001")	0.94	1.34	3.12
PPA (g)	0.026	0.039	0.026
Peak Vector Sum :	0.083 in/s		
Peak Air Pressure:	98 db		
	0.00039 PSI @ 6.4 Hz		

Additional Info:

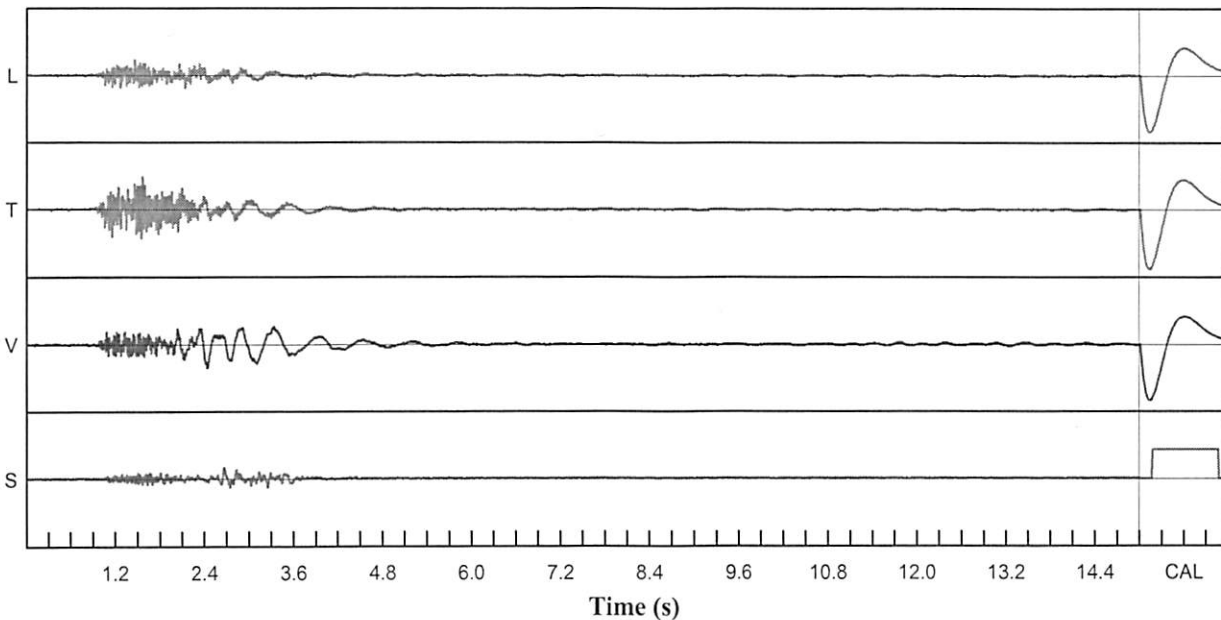
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

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

Velocity Waveform

SN: 5148 Event: 33



Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/06/2019 13:32:37
Event No: 34
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

	Summary Data		
	L	T	V
PPV (in/s)	0.113	0.093	0.093
FREQ (Hz)	20.8	18.5	4.9
PD (.001")	1.84	1.62	5.51
PPA (g)	0.059	0.039	0.046
Peak Vector Sum :	0.143 in/s		
Peak Air Pressure:	106 db		
	0.00064 PSI @ 5.6 Hz		

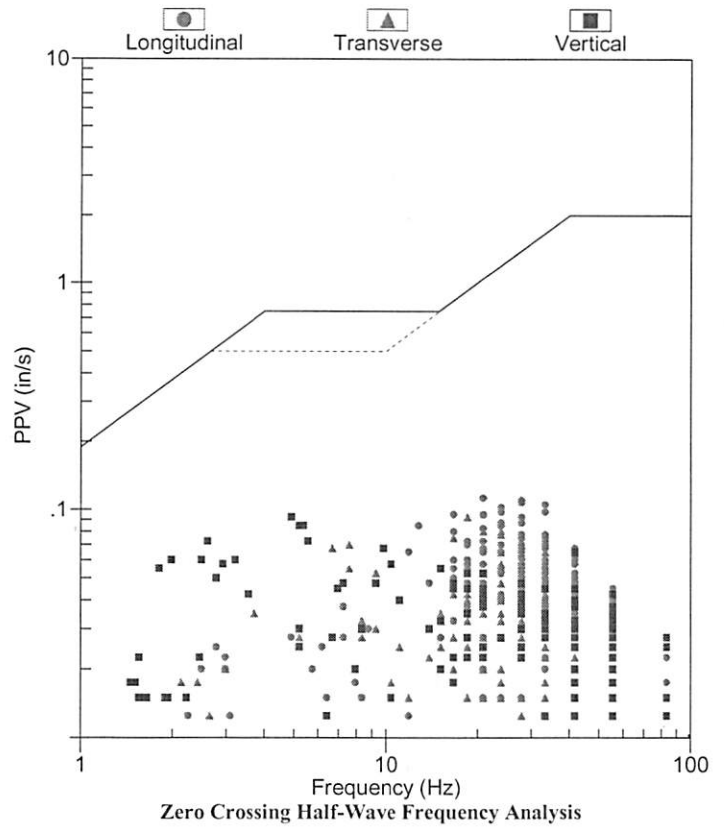
Additional Info:

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

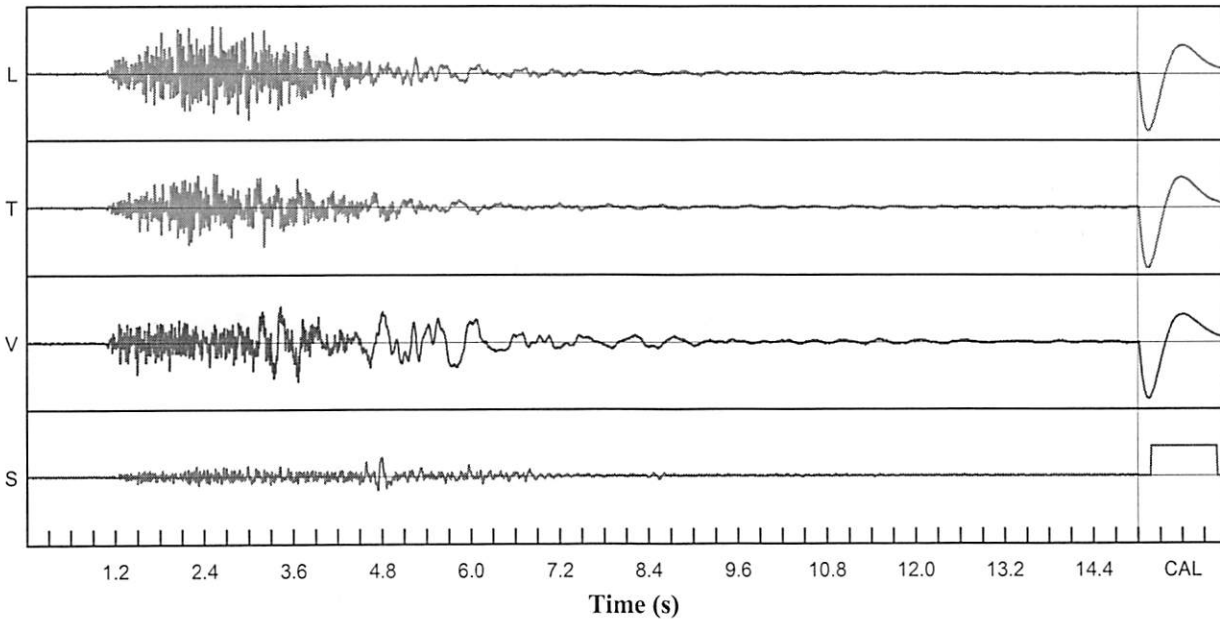
USBM Safe Blasting Levels

SN: 5148 Event: 34



Velocity Waveform

SN: 5148 Event: 34



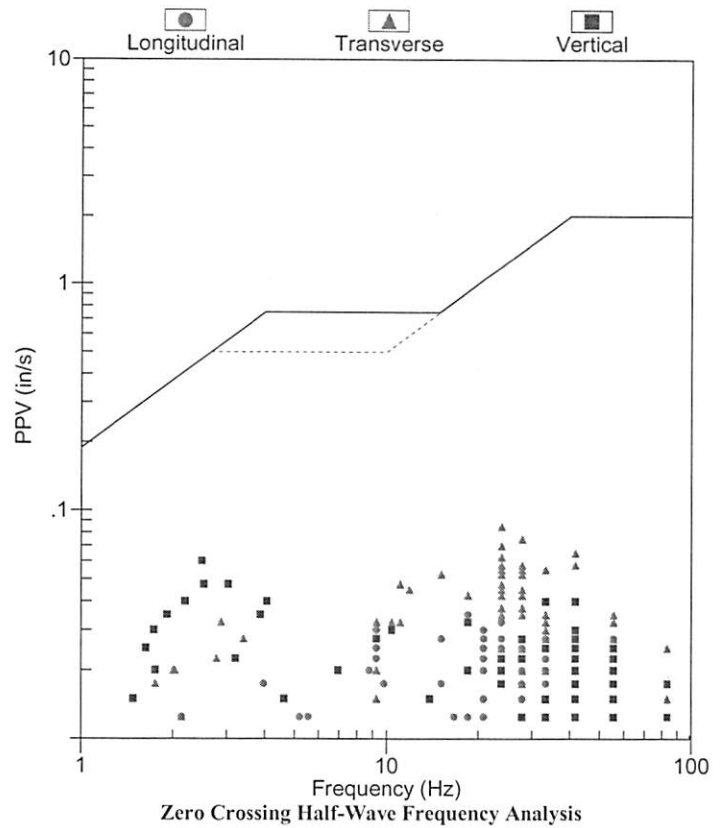
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/07/2019 11:32:48
Event No: 35
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: 35



Summary Data

	L	T	V
PPV (in/s)	0.035	0.085	0.060
FREQ (Hz)	18.5	23.8	2.5
PD (.001")	0.76	1.44	3.30
PPA (g)	0.020	0.046	0.026
Peak Vector Sum :	0.090 in/s		
Peak Air Pressure:	95 db		
	0.00032 PSI @ 4.6 Hz		

Additional Info:

Shaketable Calibrated: 04/12/2018

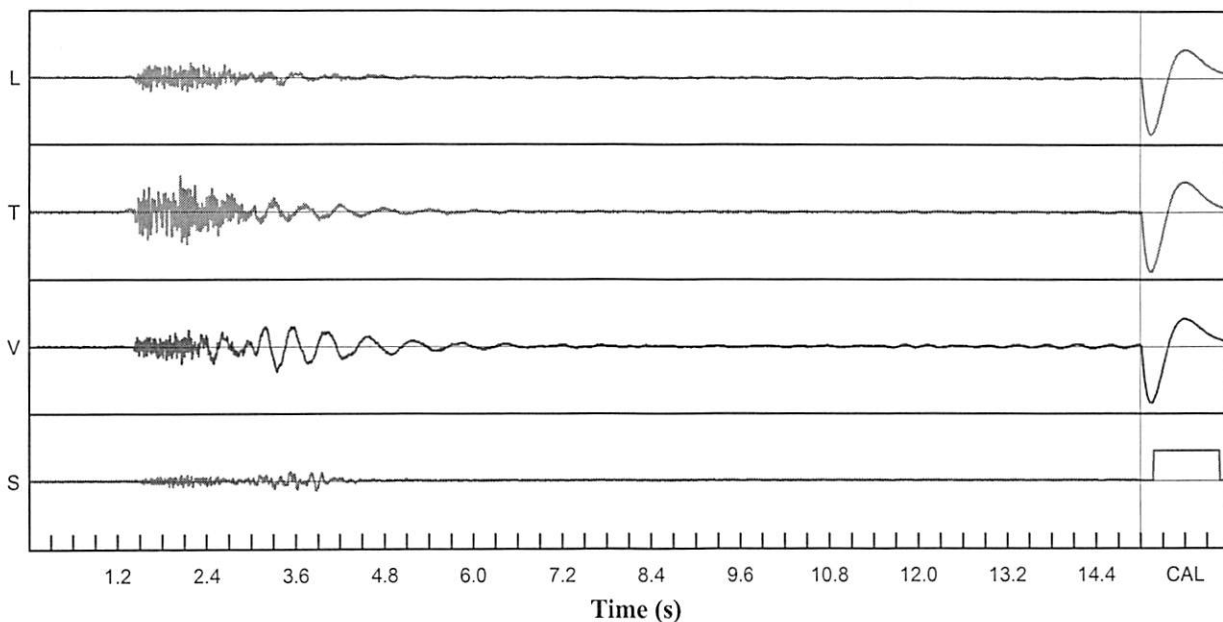
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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: 35



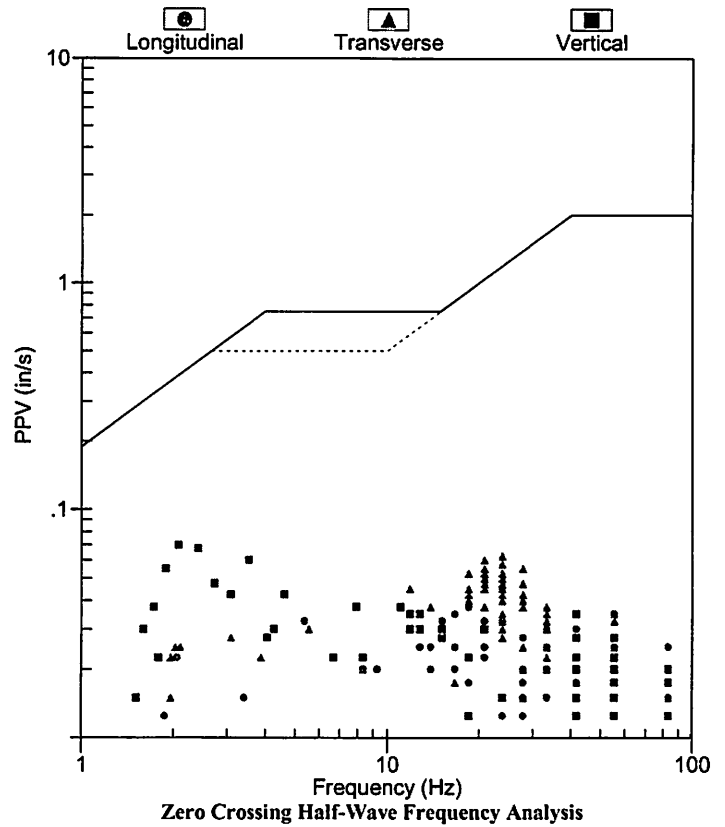
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/08/2019 13:32:33
Event No: 36
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: 36



	Summary Data		
	L	T	V
PPV (in/s)	0.045	0.063	0.070
FREQ (Hz)	23.8	23.8	2.1
PD (.001")	1.17	1.88	4.96
PPA (g)	0.026	0.039	0.026
Peak Vector Sum :	0.073 in/s		
Peak Air Pressure:	91 db		
	0.00025 PSI @ 8.3 Hz		

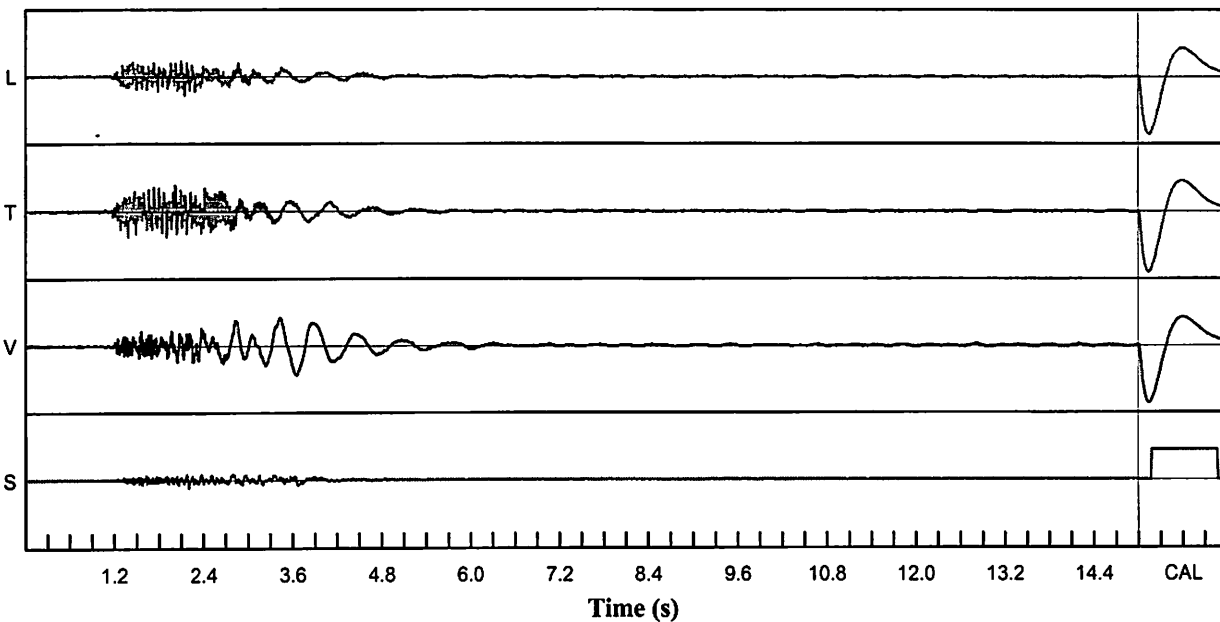
Additional Info:

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: 5148 Event: 36



Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/11/2019 13:32:50
Event No: 37
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

	Summary Data		
	L	T	V
PPV (in/s)	0.098	0.070	0.088
FREQ (Hz)	33.3	27.8	5.2
PD (.001")	1.43	1.41	3.51
PPA (g)	0.052	0.039	0.046
Peak Vector Sum :	0.110 in/s		
Peak Air Pressure:	109 db		
	0.00089 PSI @ 7.9 Hz		

Additional Info:

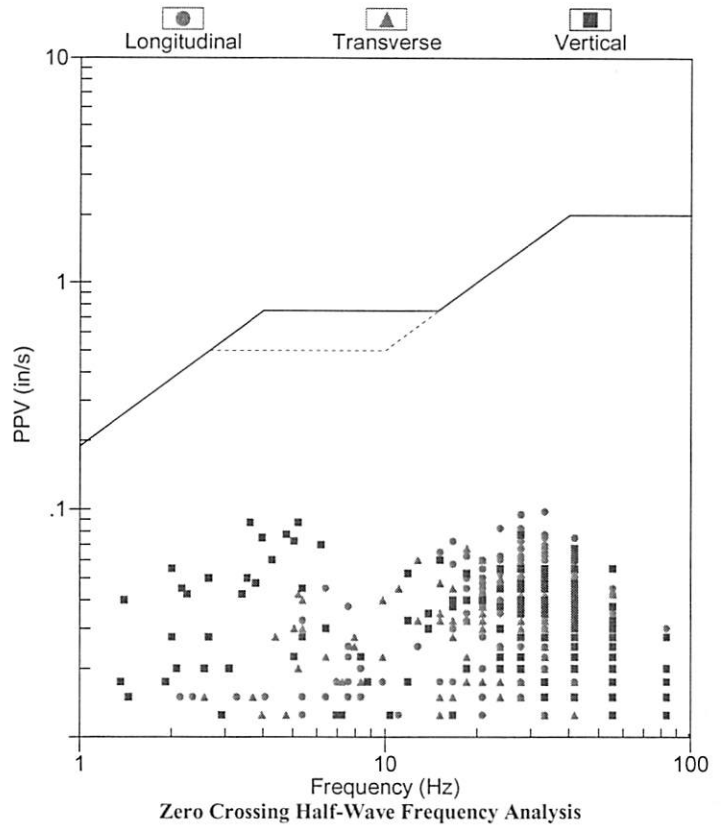
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

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

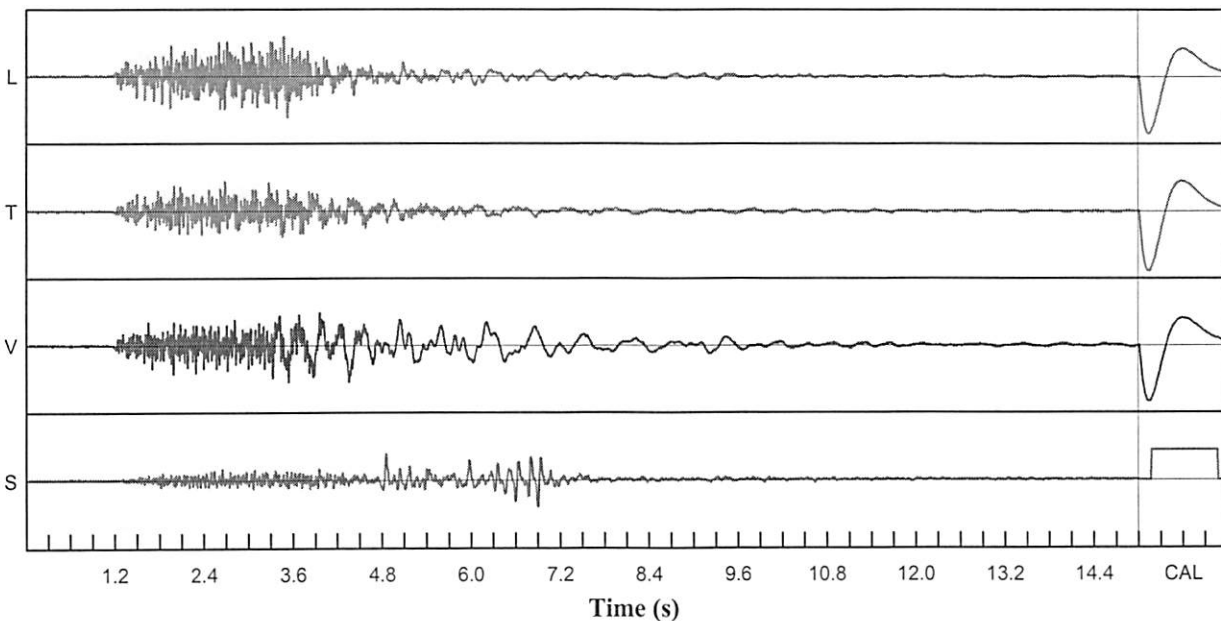
USBM Safe Blasting Levels

SN: 5148 Event: 37



Velocity Waveform

SN: 5148 Event: 37



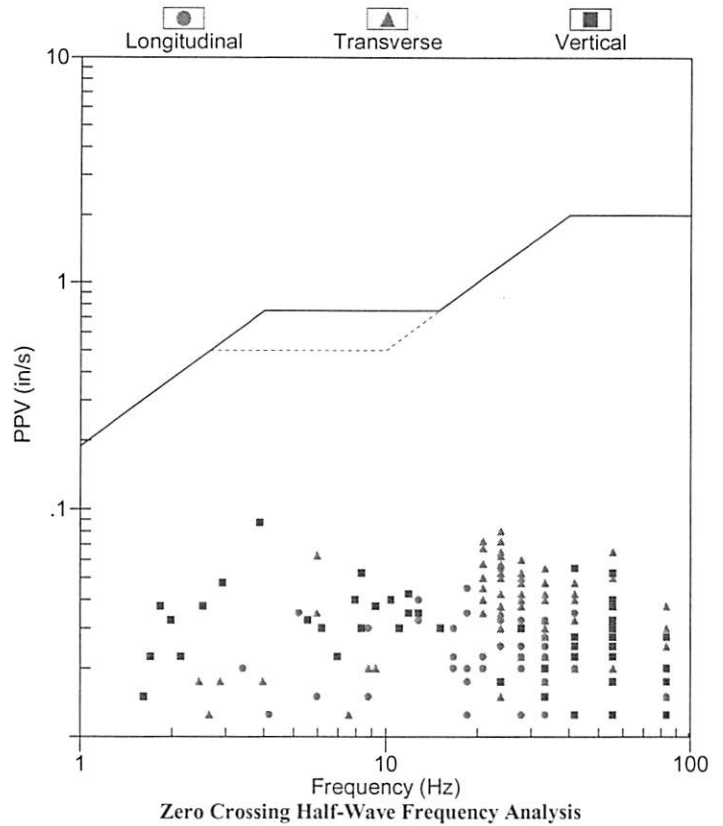
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/12/2019 11:33:12
Event No: 38
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: 38



	Summary Data		
	L	T	V
PPV (in/s)	0.055	0.080	0.088
FREQ (Hz)	23.8	23.8	3.9
PD (.001")	0.76	1.37	2.89
PPA (g)	0.039	0.052	0.039
Peak Vector Sum :	0.093 in/s		
Peak Air Pressure:	104 db		
	0.00053 PSI @ 12.8 Hz		

Additional Info:

Shaketable Calibrated: 04/12/2018

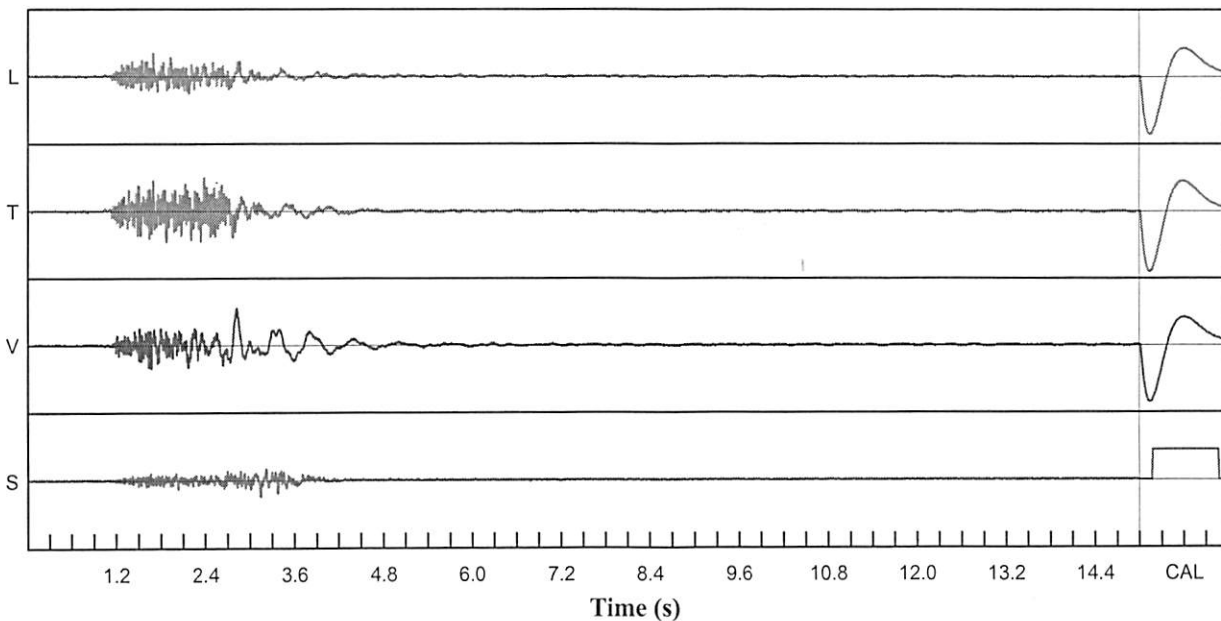
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

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

Velocity Waveform

SN: 5148 Event: 38



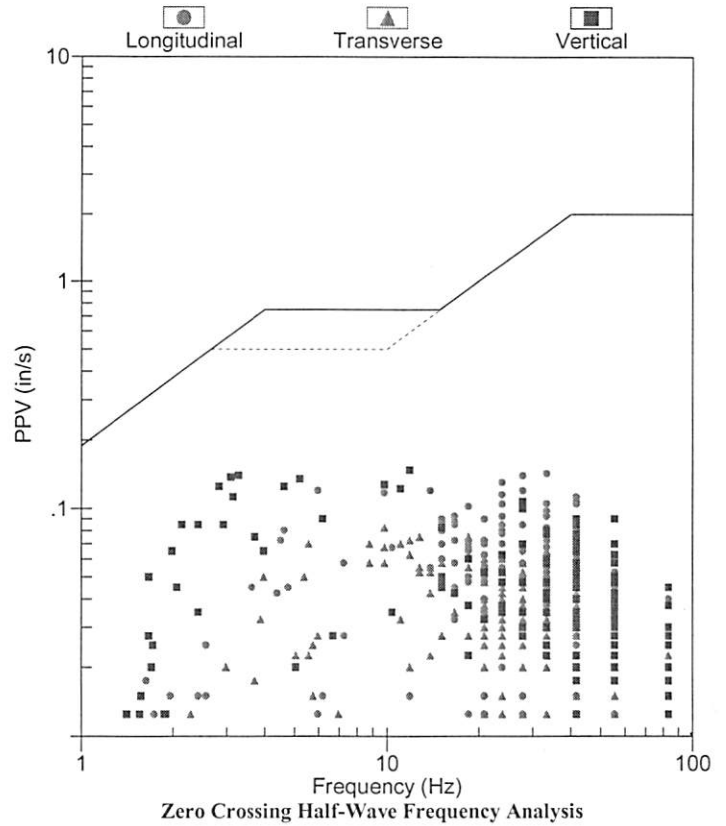
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
 Date: 02/15/2019 13:17:59
 Event No: 39
 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: 39



	Summary Data		
	L	T	V
PPV (in/s)	0.143	0.083	0.148
FREQ (Hz)	33.3	9.8	11.9
PD (.001")	2.81	2.37	6.97
PPA (g)	0.078	0.039	0.072
Peak Vector Sum :	0.185 in/s		
Peak Air Pressure:	104 db		
	0.00053 PSI @ 20.8 Hz		

Additional Info:

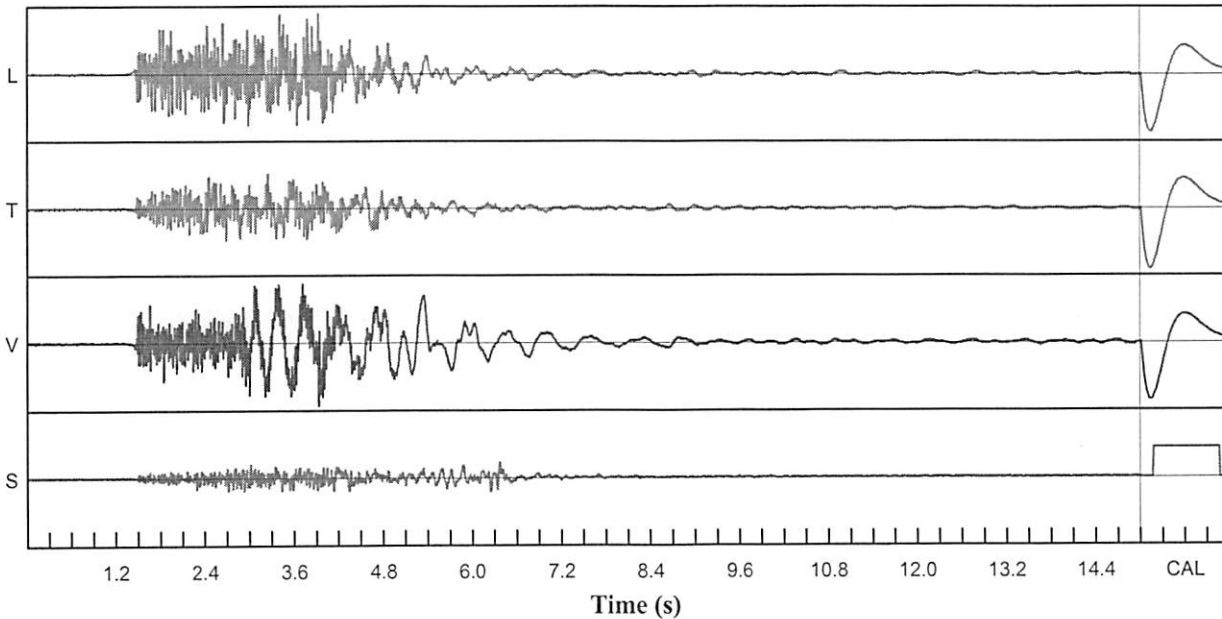
Shaketable Calibrated: 04/12/2018
 By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

Velocity Waveform Graph Scale

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

Velocity Waveform

SN: 5148 Event: 39



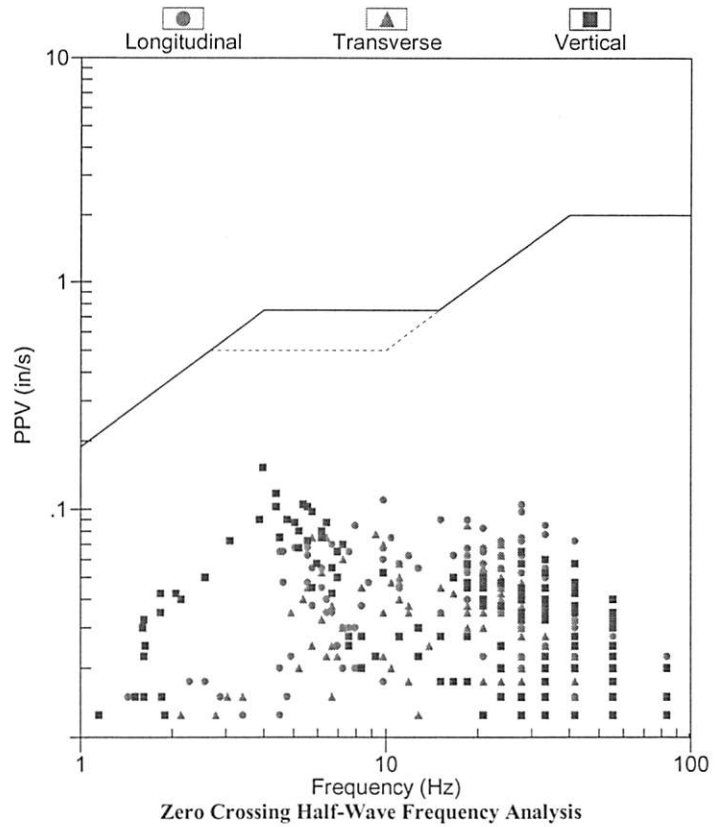
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/19/2019 13:18:14
Event No: 40
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: 40



	Summary Data		
	L	T	V
PPV (in/s)	0.110	0.085	0.153
FREQ (Hz)	9.8	18.5	4.0
PD (.001")	2.28	1.93	4.56
PPA (g)	0.052	0.039	0.046
Peak Vector Sum :	0.153 in/s		
Peak Air Pressure:	108 db		
	0.00082 PSI @ 4.5 Hz		

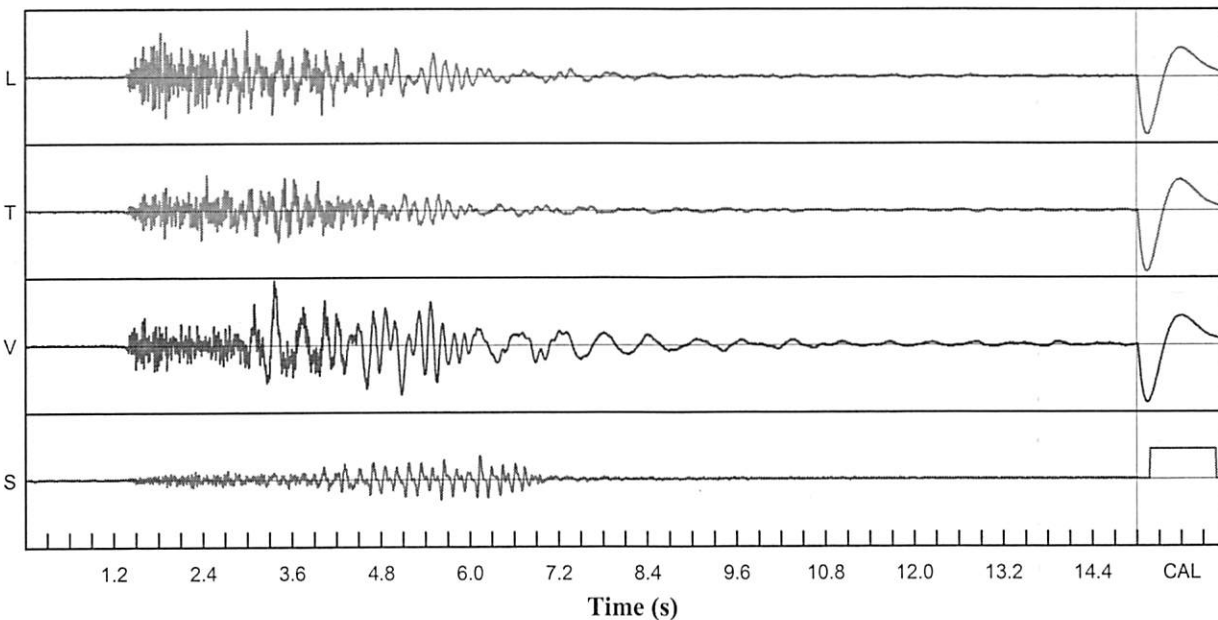
Additional Info:

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: 40



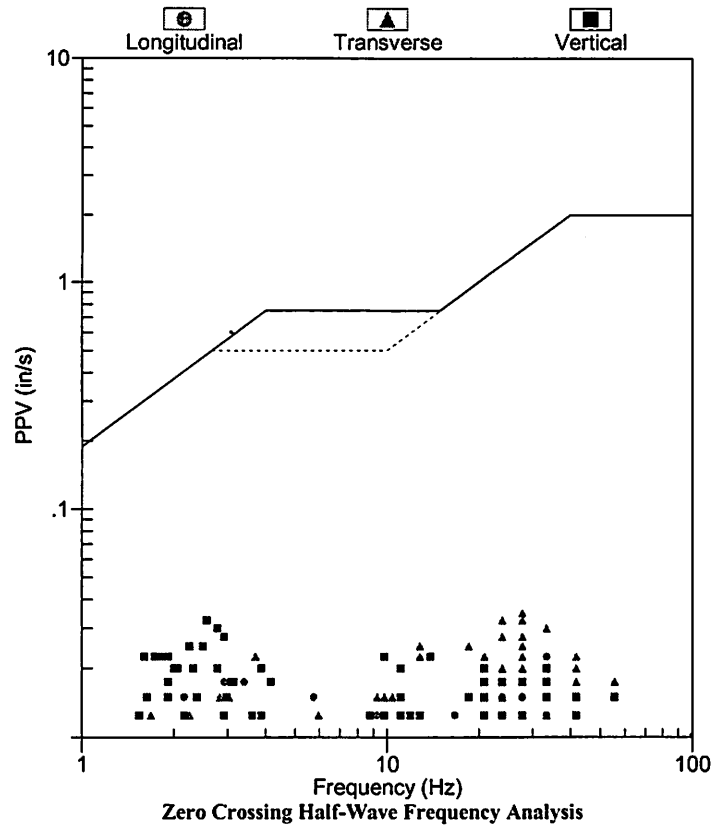
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/20/2019 11:48:23
Event No: 41
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: 41



	Summary Data		
	L	T	V
PPV (in/s)	0.023	0.043	0.033
FREQ (Hz)	33.3	27.8	2.6
PD (.001")	0.93	1.12	2.06
PPA (g)	0.013	0.020	0.013
Peak Vector Sum :	0.050 in/s		
Peak Air Pressure:	93 db		
	0.00028 PSI @ 2.8 Hz		

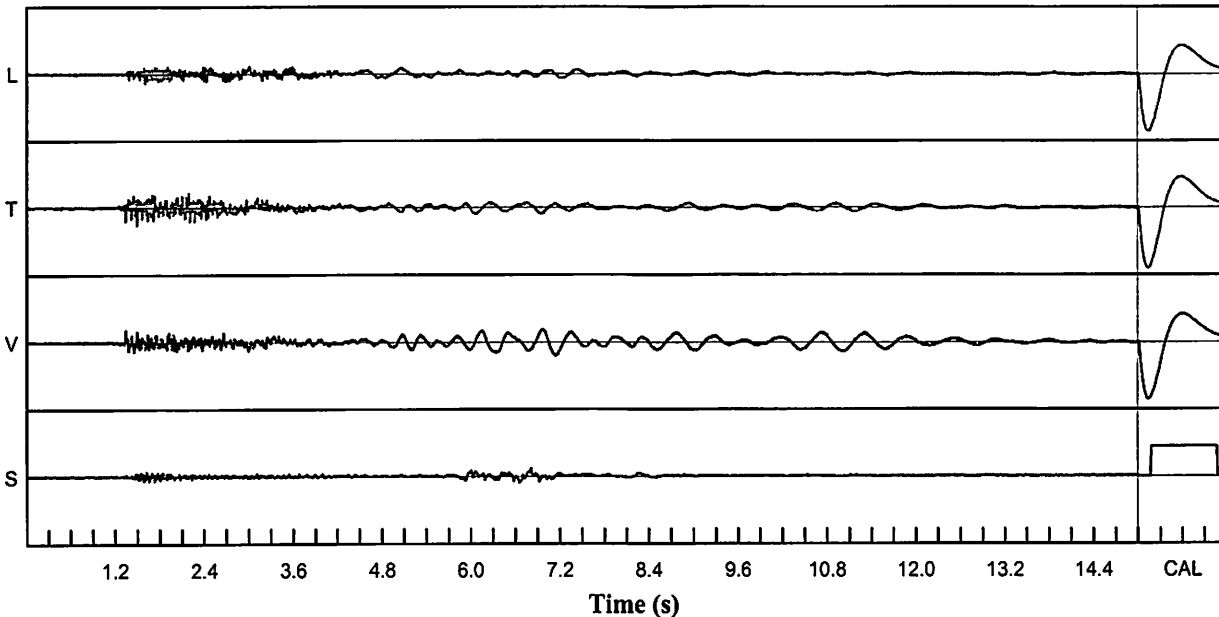
Additional Info:

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: 5148 Event: 41



Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/21/2019 13:34:18
Event No: 42
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: 42

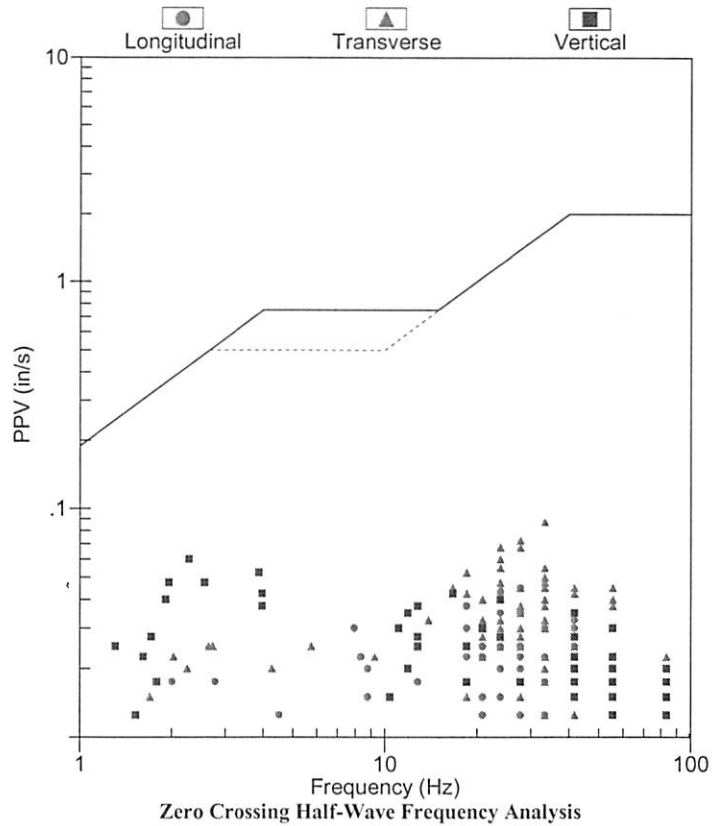
	Summary Data		
	L	T	V
PPV (in/s)	0.045	0.088	0.060
FREQ (Hz)	27.8	33.3	2.3
PD (.001")	1.07	1.51	3.98
PPA (g)	0.026	0.046	0.033
Peak Vector Sum :	0.093 in/s		
Peak Air Pressure:	106 db		
	0.00057 PSI @ 6.2 Hz		

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

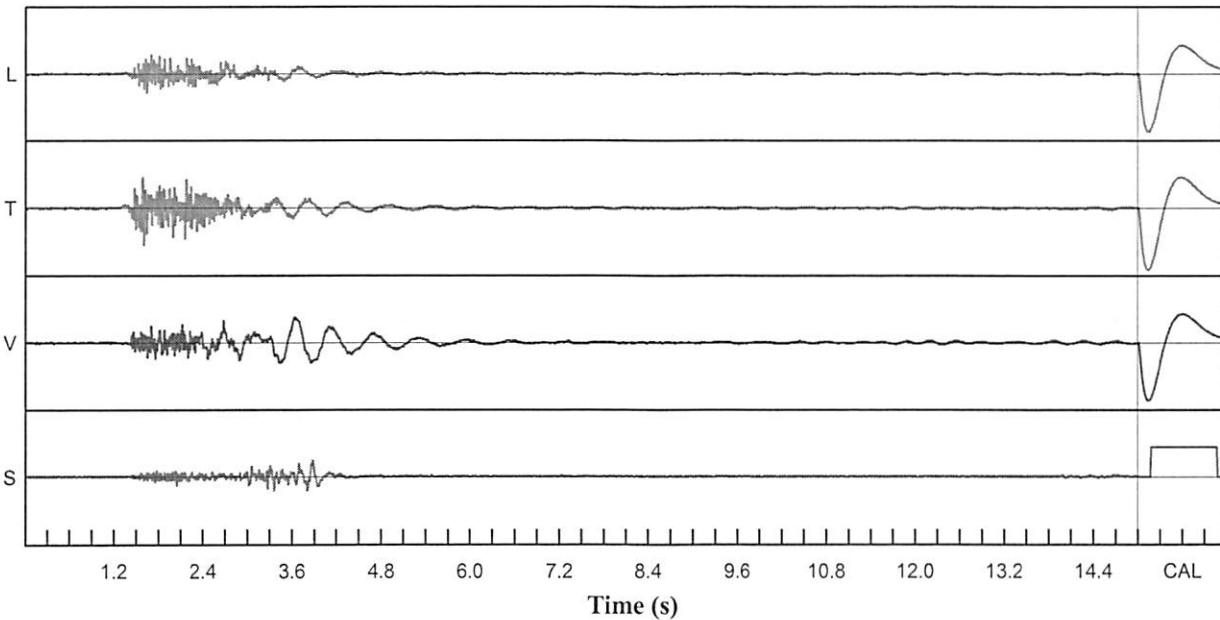
Velocity Waveform Graph Scale

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



Velocity Waveform

SN: 5148 Event: 42



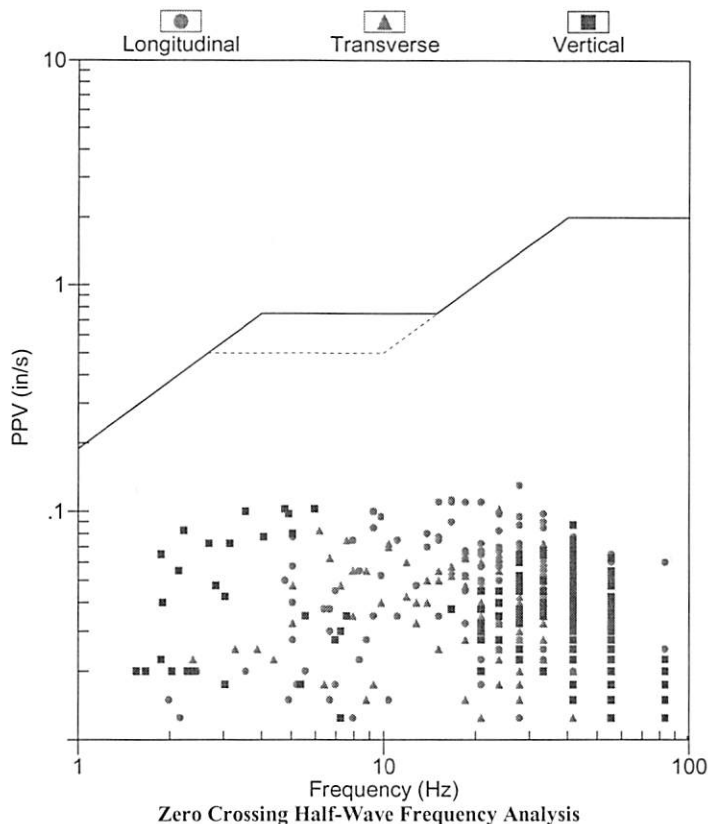
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/22/2019 13:36:43
Event No: 43
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: 43



	Summary Data		
	L	T	V
PPV (in/s)	0.130	0.103	0.103
FREQ (Hz)	27.8	23.8	4.8
PD (.001")	1.93	1.94	4.42
PPA (g)	0.065	0.052	0.052
Peak Vector Sum :	0.143 in/s		
Peak Air Pressure:	107 db		
	0.00071 PSI @ 5.1 Hz		

Additional Info:

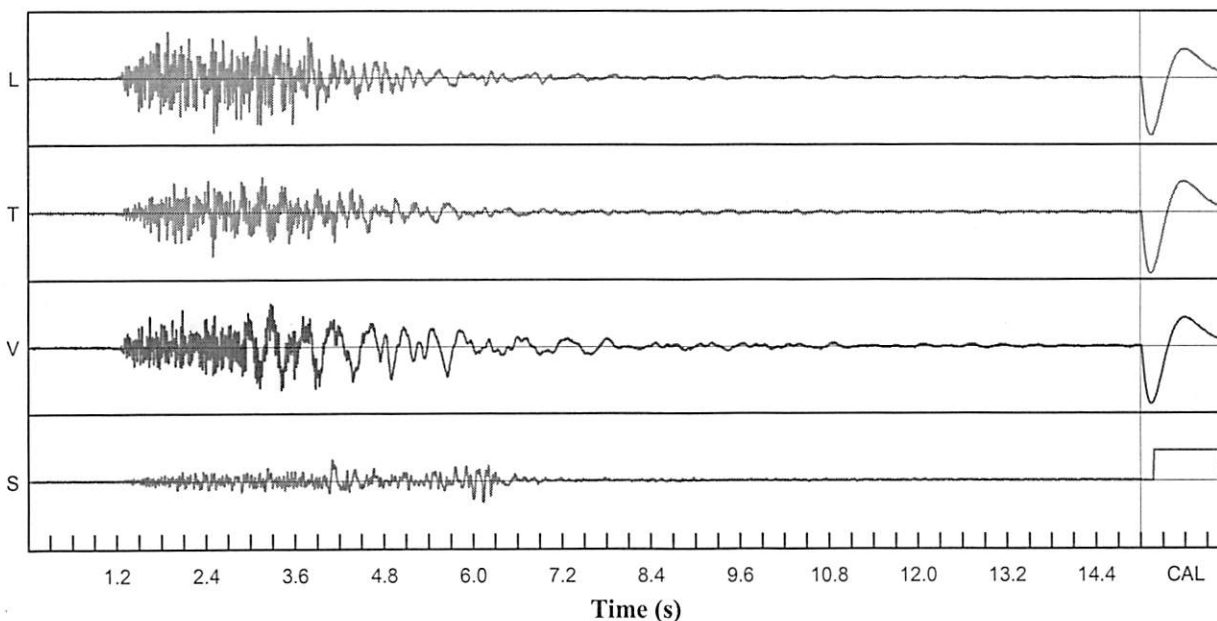
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

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: 43



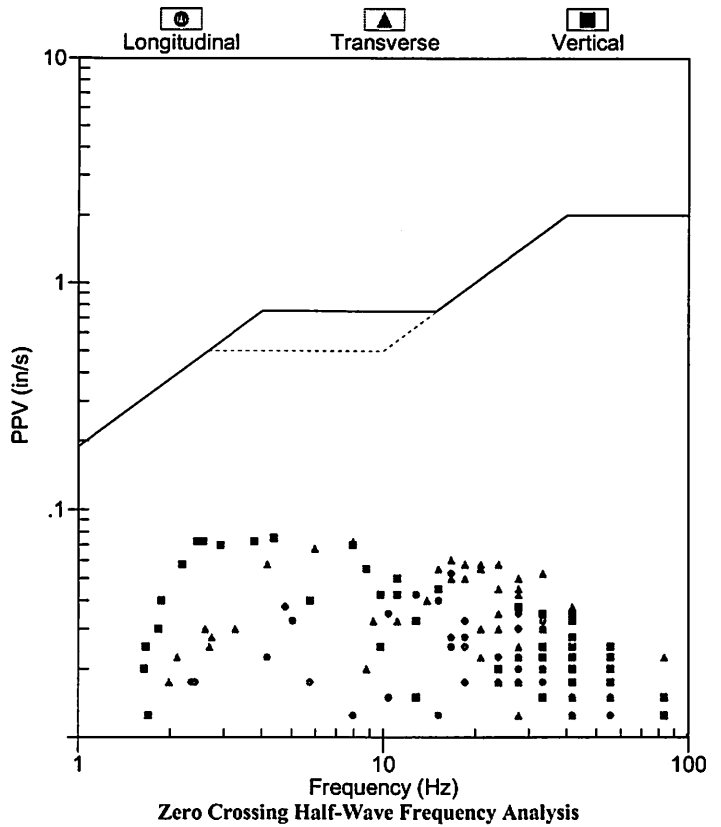
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/26/2019 11:33:39
Event No: 44
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: 44



	Summary Data		
	L	T	V
PPV (in/s)	0.053	0.073	0.075
FREQ (Hz)	16.7	7.9	4.4
PD (.001")	1.15	1.74	4.36
PPA (g)	0.020	0.039	0.026
Peak Vector Sum :	0.093 in/s		
Peak Air Pressure:	103 db		
	0.00050 PSI @ 12.8 Hz		

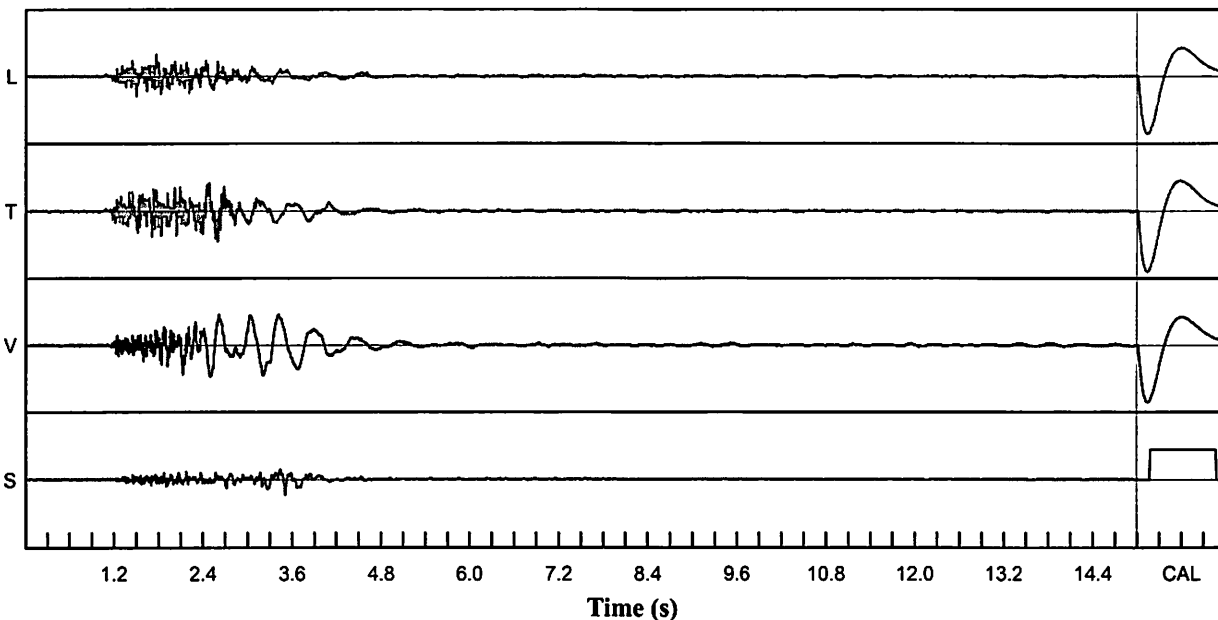
Additional Info:

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: 5148 Event: 44



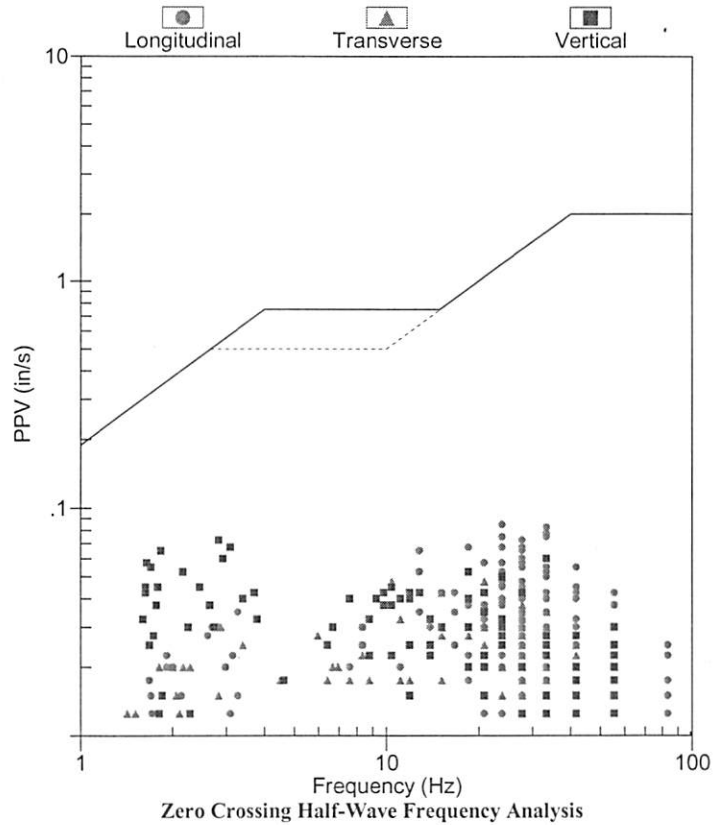
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/27/2019 11:23:42
Event No: 45
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: 45



	Summary Data		
	L	T	V
PPV (in/s)	0.085	0.048	0.073
FREQ (Hz)	23.8	23.8	2.8
PD (.001")	1.65	1.45	5.36
PPA (g)	0.046	0.020	0.033
Peak Vector Sum :	0.095 in/s		
Peak Air Pressure:	108 db		
	0.00085 PSI @ 5.4 Hz		

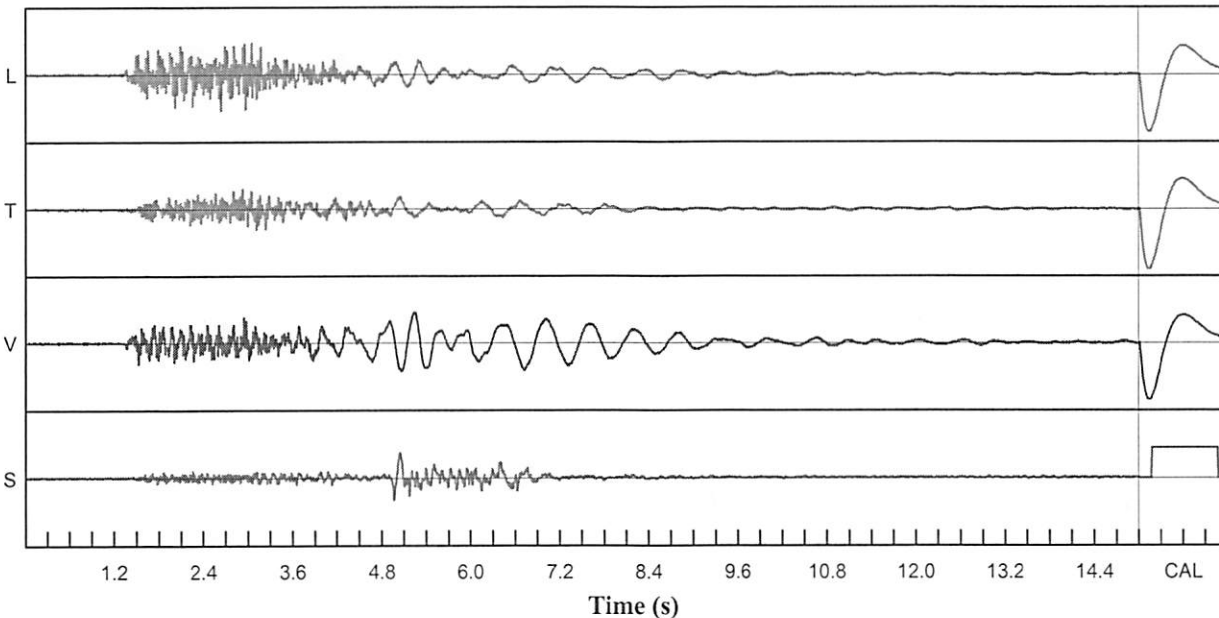
Additional Info:

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: 45



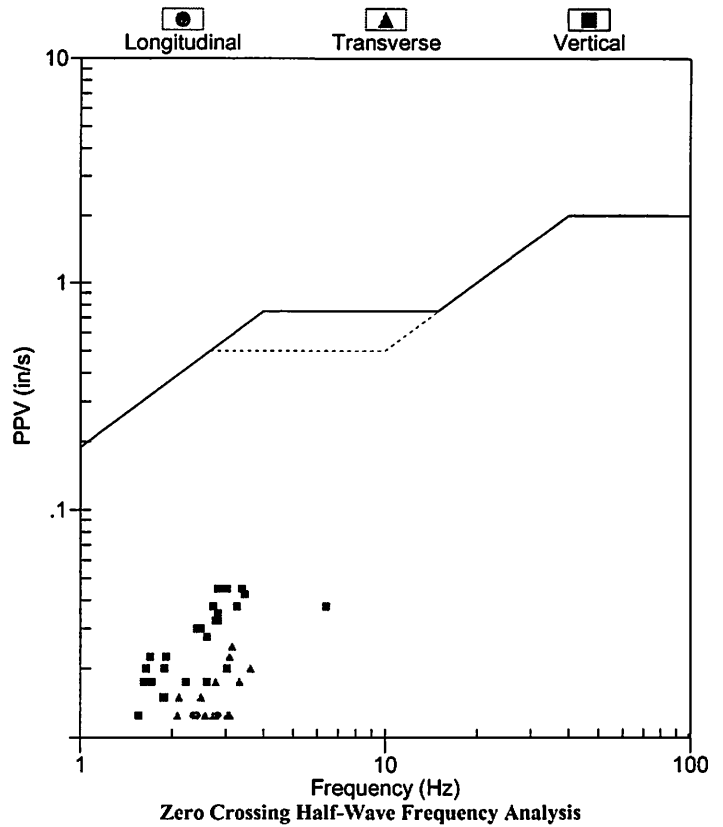
Seismic Analysis

Velocity Waveform Analysis

Serial No: 5148 v3.67
Date: 02/28/2019 14:04:11
Event No: 46
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: 46



	Summary Data		
	L	T	V
PPV (in/s)	0.015	0.025	0.045
FREQ (Hz)	9.8	3.1	3.4
PD (.001")	1.03	1.13	2.51
PPA (g)	0.007	0.007	0.007
Peak Vector Sum :	0.048 in/s		
Peak Air Pressure:	96 db		
	0.00036 PSI @ 3.9 Hz		

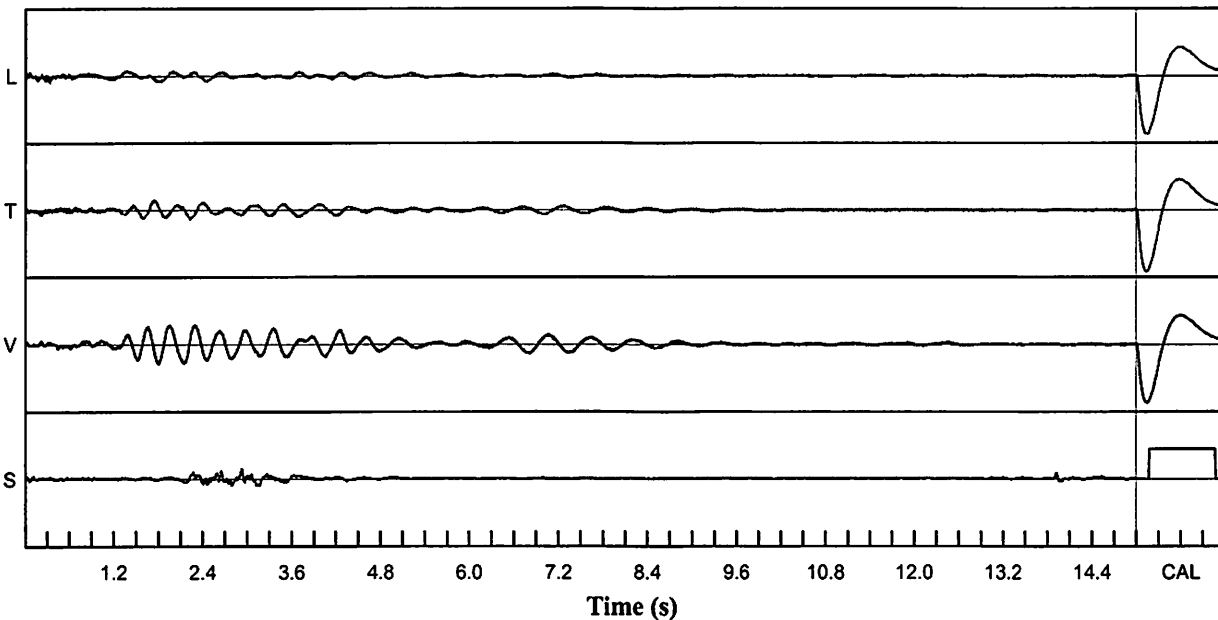
Additional Info:

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: 46



Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 02/04/2019 13:35:44
Event No: 25
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

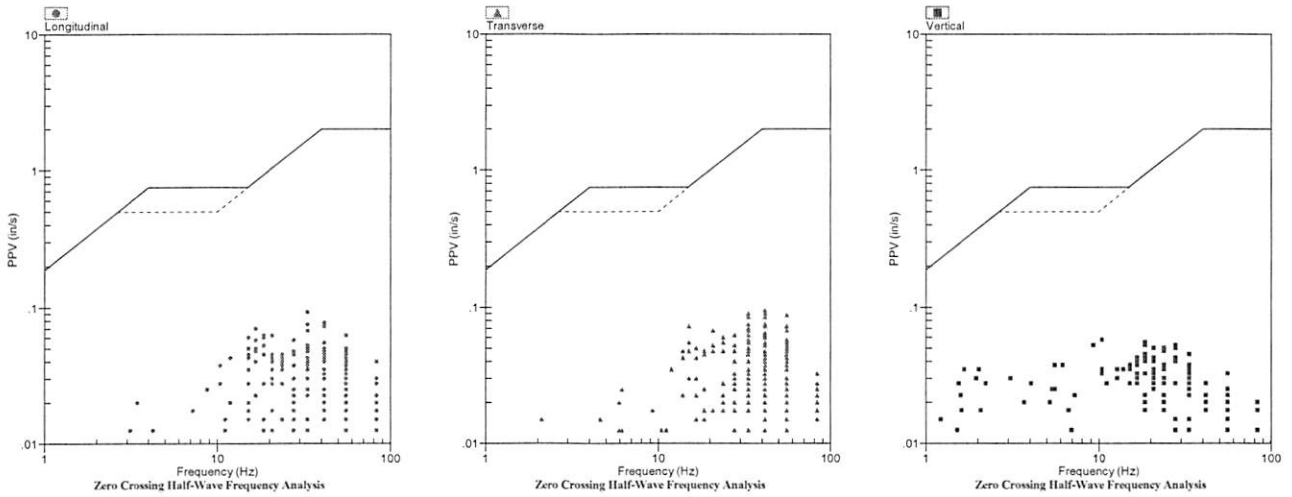
Summary Data

	L	T	V
PPV (in/s)	0.093	0.095	0.058
FREQ (Hz)	33.3	41.7	10.4
PD (.001")	1.10	1.34	2.79
PPA (g)	0.052	0.065	0.039
Peak Vector Sum:	0.123 in/s		
Peak Air Pressure:	101 db		
	0.00037 PSI @ 33.3 Hz		

Additional Info:

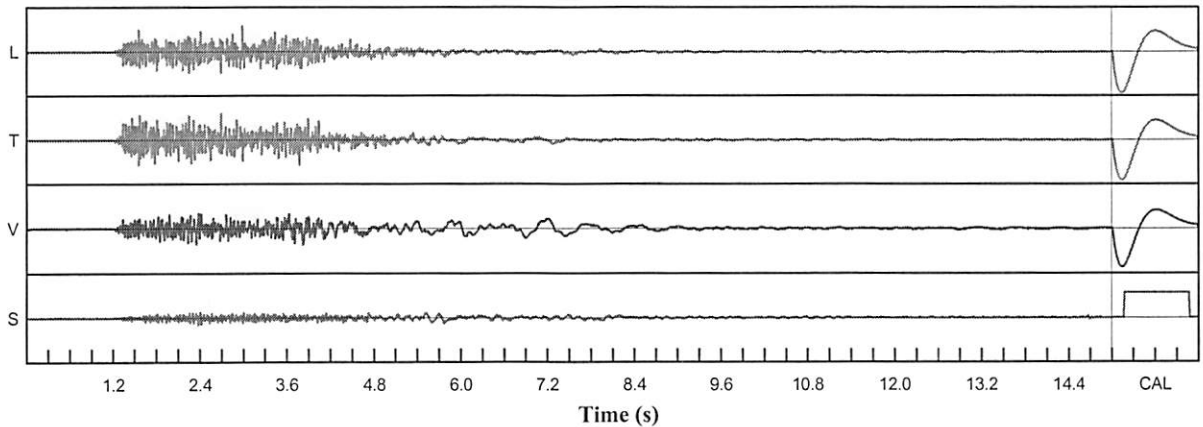
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 25



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 02/06/2019 13:35:56
Event No: 26
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

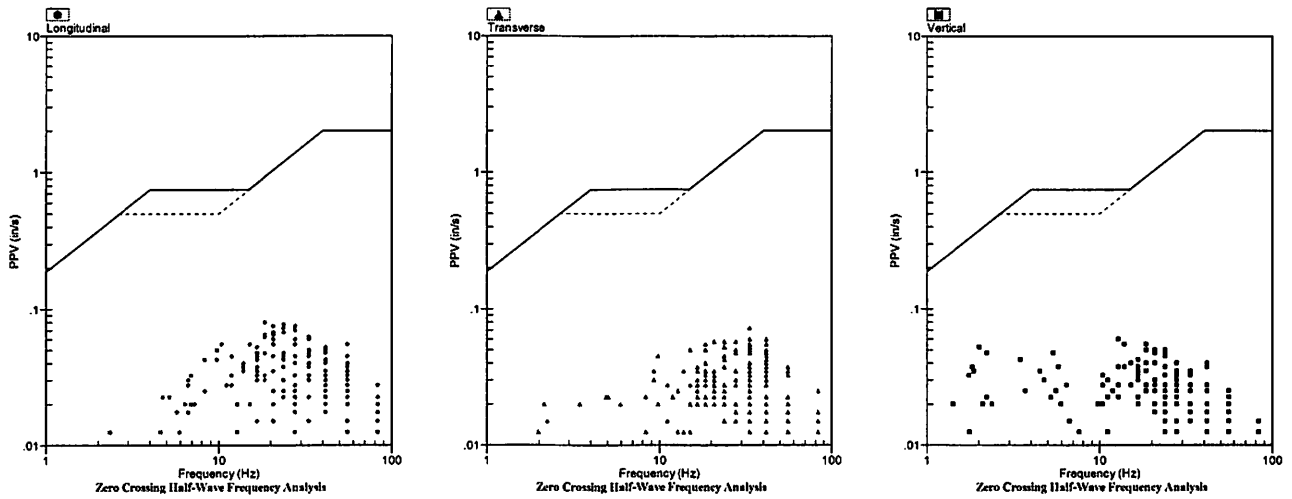
Summary Data

	L	T	V
PPV (in/s)	0.080	0.073	0.060
FREQ (Hz)	18.5	33.3	12.8
PD (.001")	1.15	1.52	3.24
PPA (g)	0.046	0.039	0.033
Peak Vector Sum:	0.103 in/s		
Peak Air Pressure:	103 db		
	0.00048 PSI @ 5.7 Hz		

Additional Info:

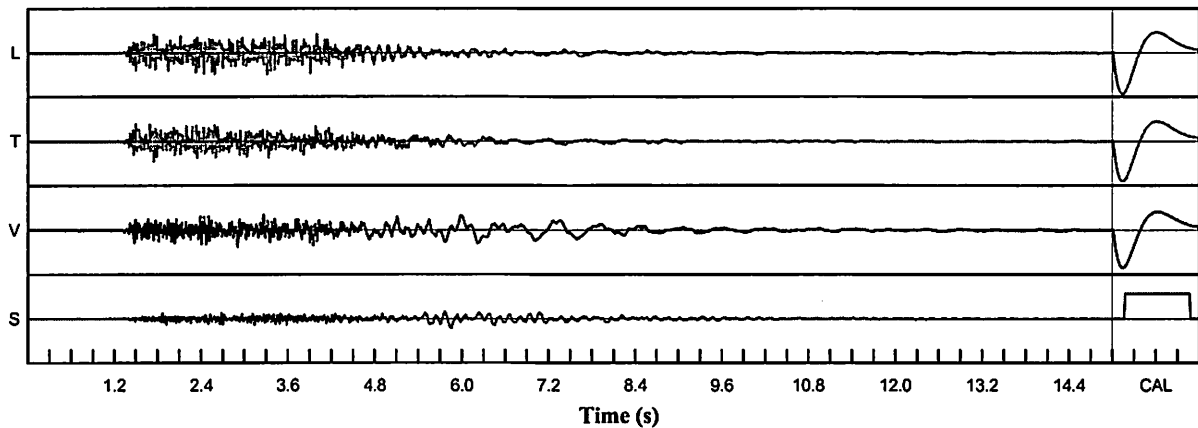
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 26



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 02/11/2019 13:36:15
Event No: 27
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

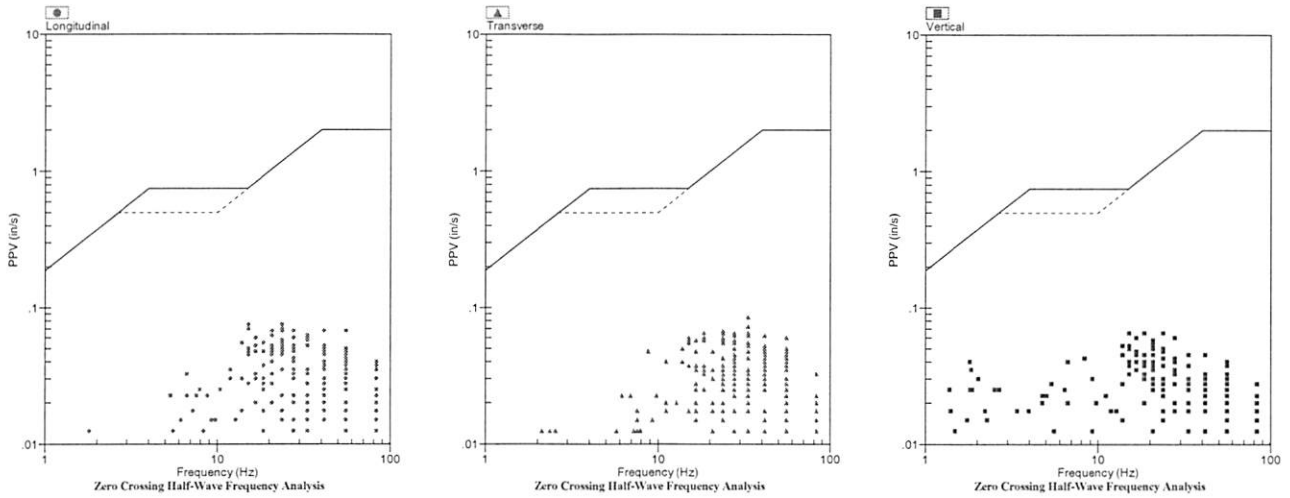
Summary Data

	L	T	V
PPV (in/s)	0.075	0.085	0.065
FREQ (Hz)	15.2	33.3	23.8
PD (.001")	1.21	1.38	3.13
PPA (g)	0.052	0.046	0.033
Peak Vector Sum:	0.100 in/s		
Peak Air Pressure:	105 db		
	0.00059 PSI @ 6.0 Hz		

Additional Info:

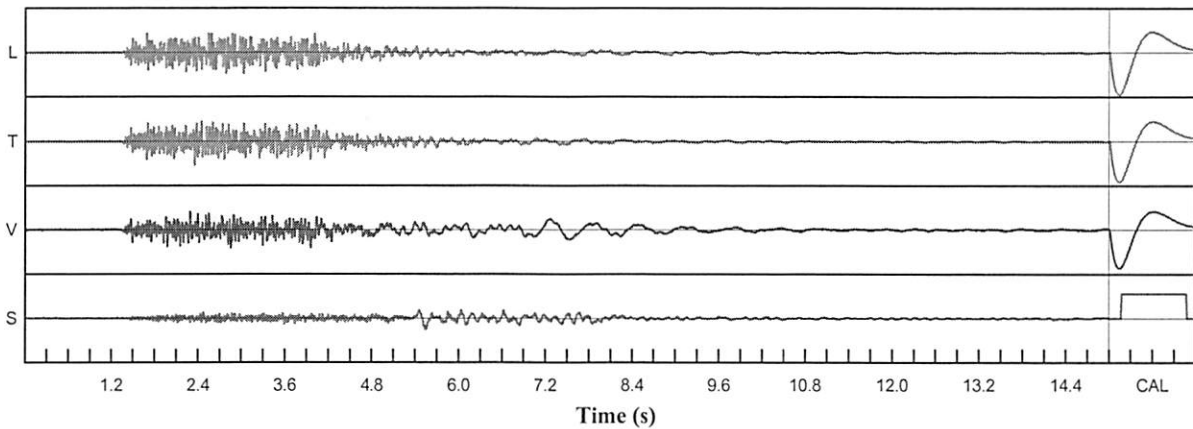
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 27



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

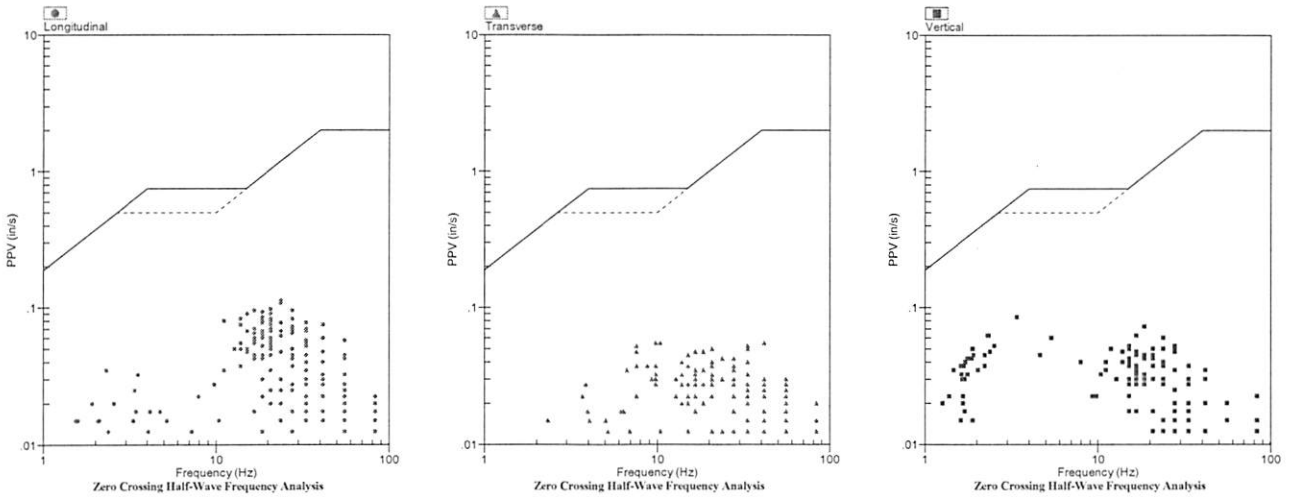
Serial No: 5149 v3.67
Date: 02/15/2019 13:21:29
Event No: 28
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

	L	T	V
PPV (in/s)	0.113	0.055	0.085
FREQ (Hz)	23.8	41.7	3.4
PD (.001")	1.58	1.38	4.09
PPA (g)	0.059	0.033	0.033
Peak Vector Sum:	0.123 in/s		
Peak Air Pressure:	103 db		
	0.00050 PSI @ 20.8 Hz		

Additional Info:

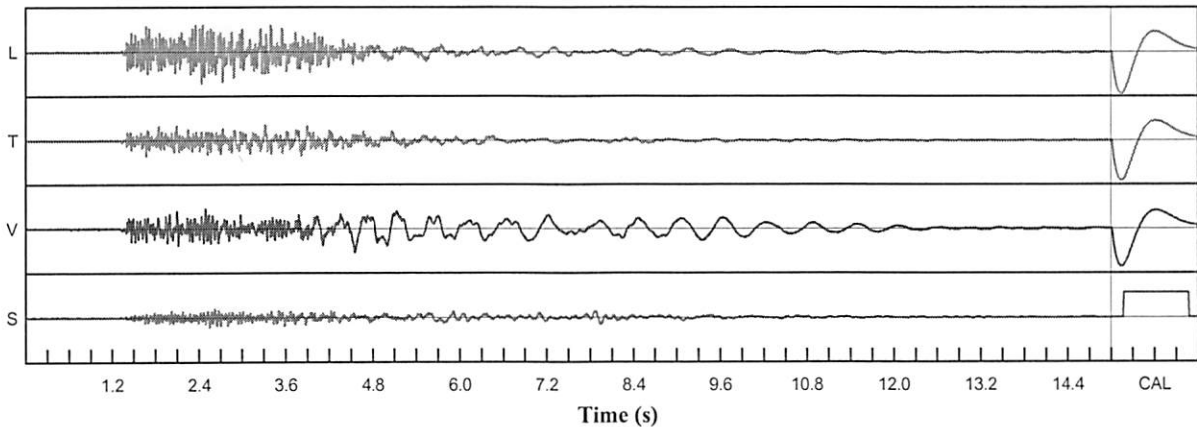
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 28



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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 02/19/2019 13:21:48
Event No: 29
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

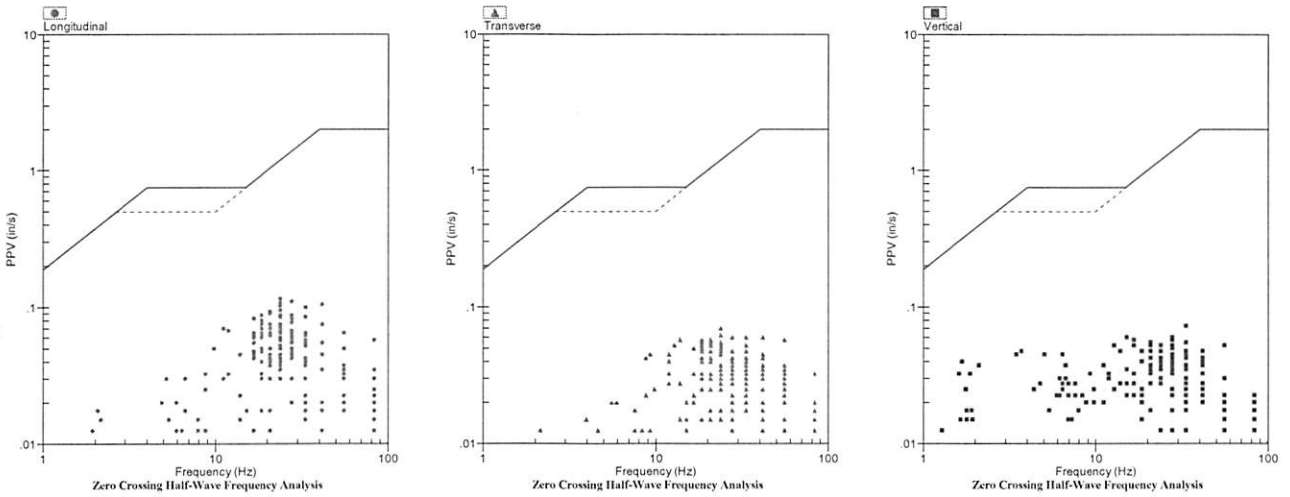
Summary Data

	L	T	V
PPV (in/s)	0.115	0.070	0.073
FREQ (Hz)	23.8	23.8	33.3
PD (.001")	1.39	1.13	3.25
PPA (g)	0.052	0.039	0.039
Peak Vector Sum:	0.140 in/s		
Peak Air Pressure:	102 db		
	0.00041 PSI @ 27.8 Hz		

Additional Info:

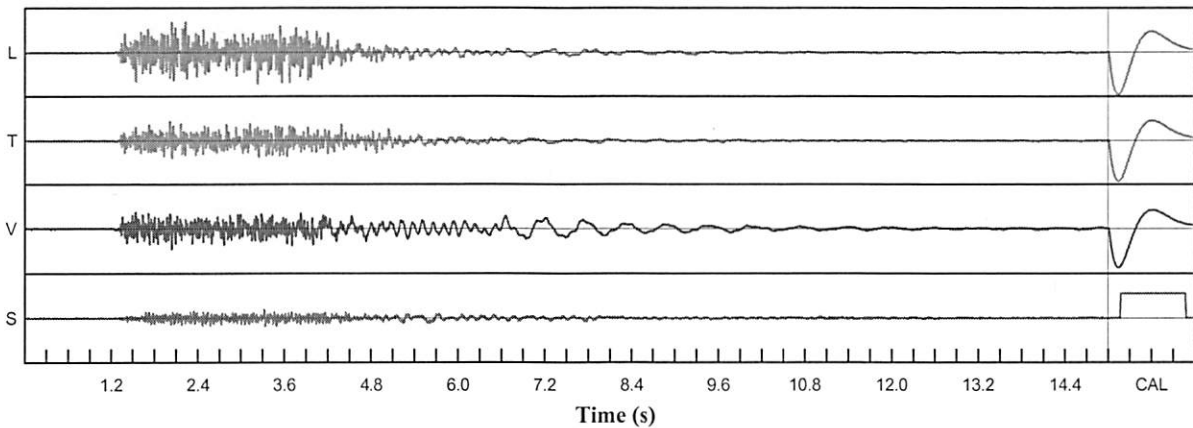
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 29



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 02/22/2019 13:40:20
Event No: 30
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

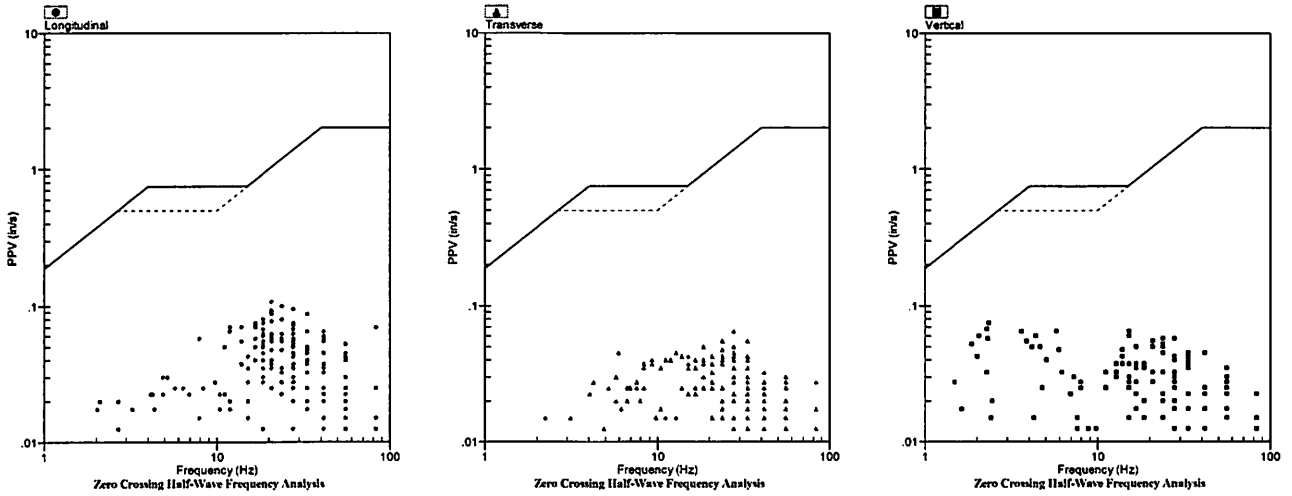
Summary Data

	L	T	V
PPV (in/s)	0.108	0.065	0.075
FREQ (Hz)	20.8	27.8	2.3
PD (.001")	1.60	1.34	4.81
PPA (g)	0.059	0.033	0.039
Peak Vector Sum:	0.120 in/s		
Peak Air Pressure:	103 db		
	0.00050 PSI @ 3.5 Hz		

Additional Info:

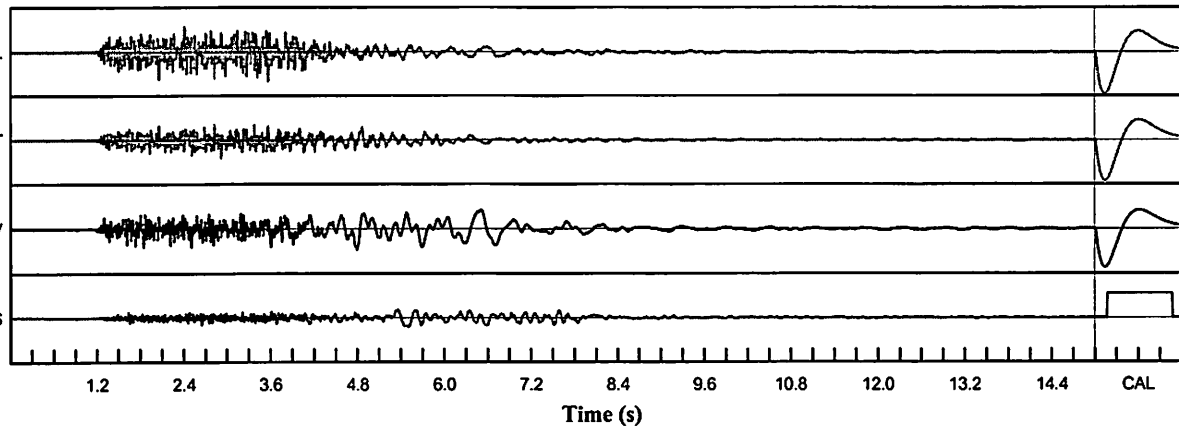
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 30



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

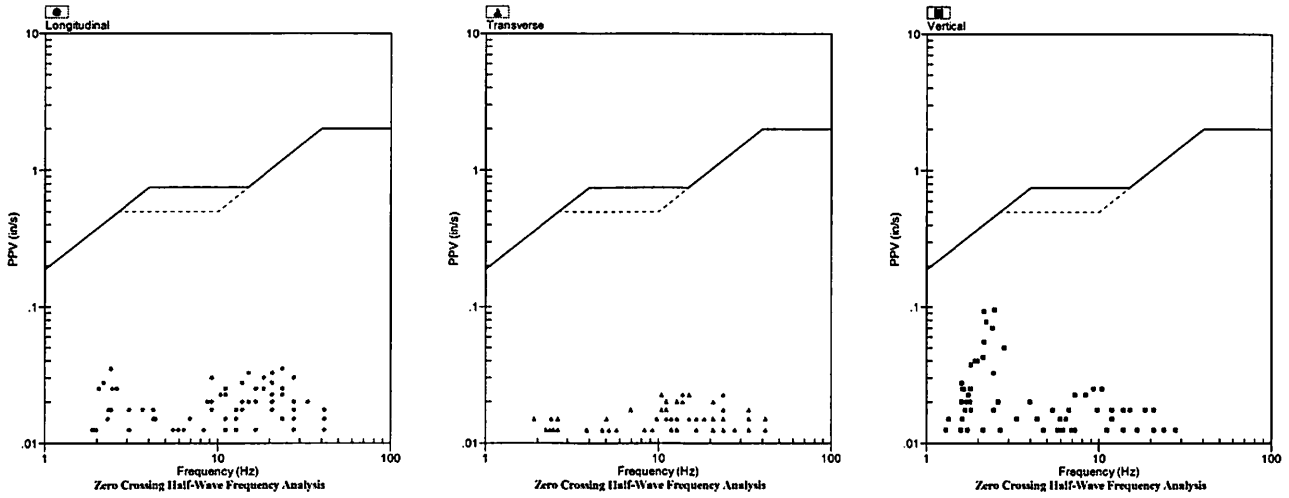
Serial No: 5149 v3.67
Date: 02/27/2019 11:27:24
Event No: 31
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49 Ct
Distance:
Operator: Pedro V.
Comment: In Ground
Seismic Trigger: 0.030 in/s

Summary Data			
	L	T	V
PPV (in/s)	0.038	0.023	0.095
FREQ (Hz)	12.8	23.8	2.5
PD (.001")	2.10	0.93	6.58
PPA (g)	0.013	0.013	0.013
Peak Vector Sum:	0.095 in/s		
Peak Air Pressure:	105 db		
	0.00061 PSI @ 2.6 Hz		

Additional Info:

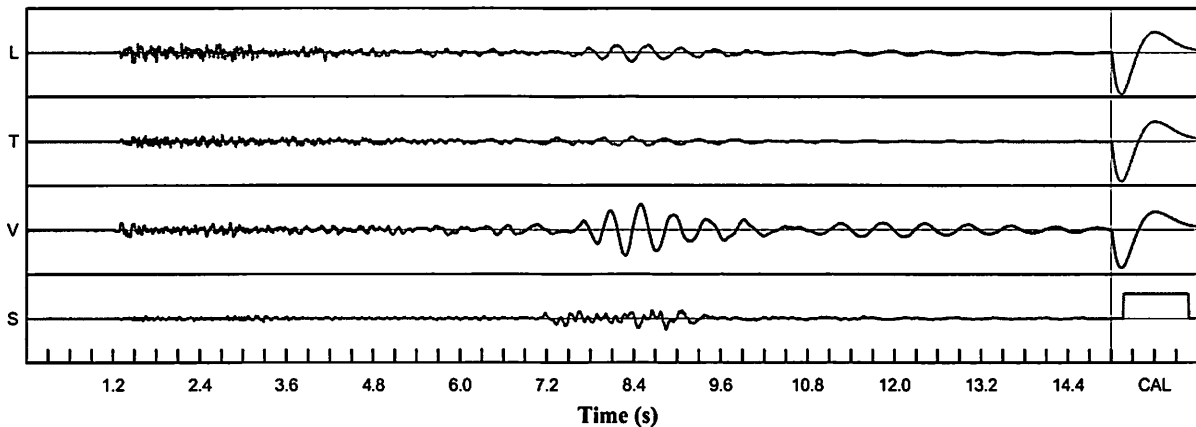
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 31



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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 03/01/2019 13:22:32
Event No: 32
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

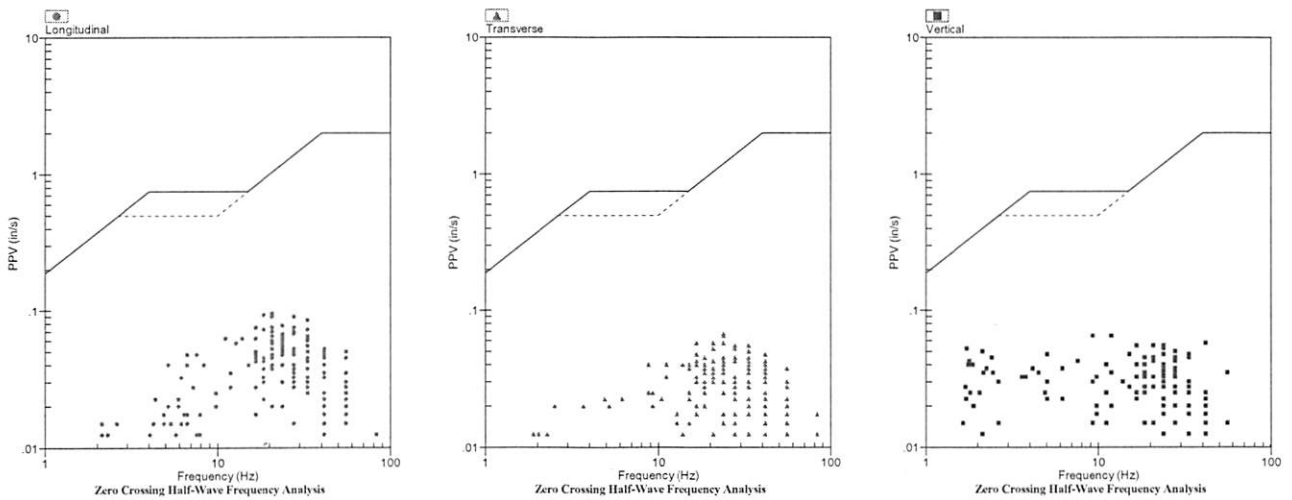
Summary Data

	L	T	V
PPV (in/s)	0.095	0.068	0.065
FREQ (Hz)	20.8	23.8	11.9
PD (.001")	1.18	1.59	3.72
PPA (g)	0.052	0.033	0.046
Peak Vector Sum:	0.118 in/s		
Peak Air Pressure:	102 db		
	0.00041 PSI @ 41.7 Hz		

Additional Info:

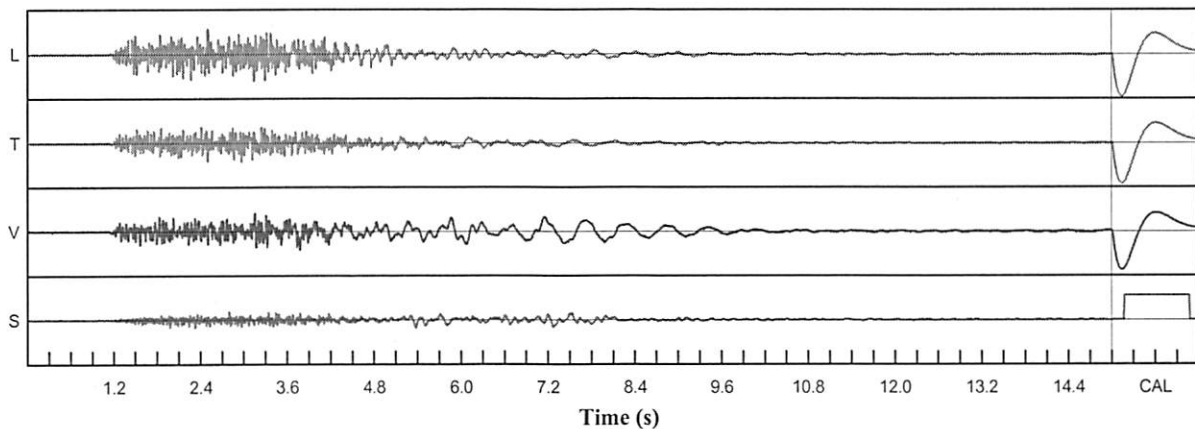
Shaketable Calibrated: 04/12/2018
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 32



Velocity Waveform Graph Scale

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