

Miramar Siesmic Reading: White Rock Quarries.

Location: 5276 SW 152 Ave

Date:	Time:	PPV:
9/5/2019	1:18 PM	0.073
9/9/2019	11:35 AM	0.085
9/13/2019	2:20 PM	0.08
10/1/2019	1:45 PM	0.123
10/2/2019	1:30 PM	0.07
10/7/2019	1:16 PM	0.108
10/11/2019	9:09 AM	0.075
10/18/2019	2:32 PM	0.103
10/22/2019	2:31 PM	0.065
10/24/2019	1:32 PM	0.068

Location: 16171 SW 49 Ct

Date:	Time:	PPV:
9/5/2019	1:17 PM	0.063
9/9/2019	11:35 AM	0.085
9/13/2019	2:20 PM	0.093
9/18/2019	1:17 PM	0.075
10/1/2019	1:36 PM	0.213
10/2/2019	1:30 PM	0.09
10/7/2019	1:16 PM	0.14
10/18/2019	2:32 PM	0.108
10/22/2019	2:30 PM	0.073
10/24/2019	1:31 PM	0.1

Location: 17040 SW 53 Ct

Date:	Time:	PPV:
9/5/2019	1:17 PM	0.185
9/9/2019	11:35 AM	0.293
9/13/2019	2:19 PM	0.203
9/17/2019	2:18 PM	0.093
9/18/2019	1:16 PM	0.293
10/1/2019	1:46 PM	0.215
10/2/2019	1:30 PM	0.188
10/7/2019	1:16 PM	0.24
10/22/2019	2:32 PM	0.123
10/24/2019	1:32 PM	0.115
10/25/2019	11:20 AM	0.083

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 09/05/2019 13:17:05
Event No: 7
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: 0.050 in/s

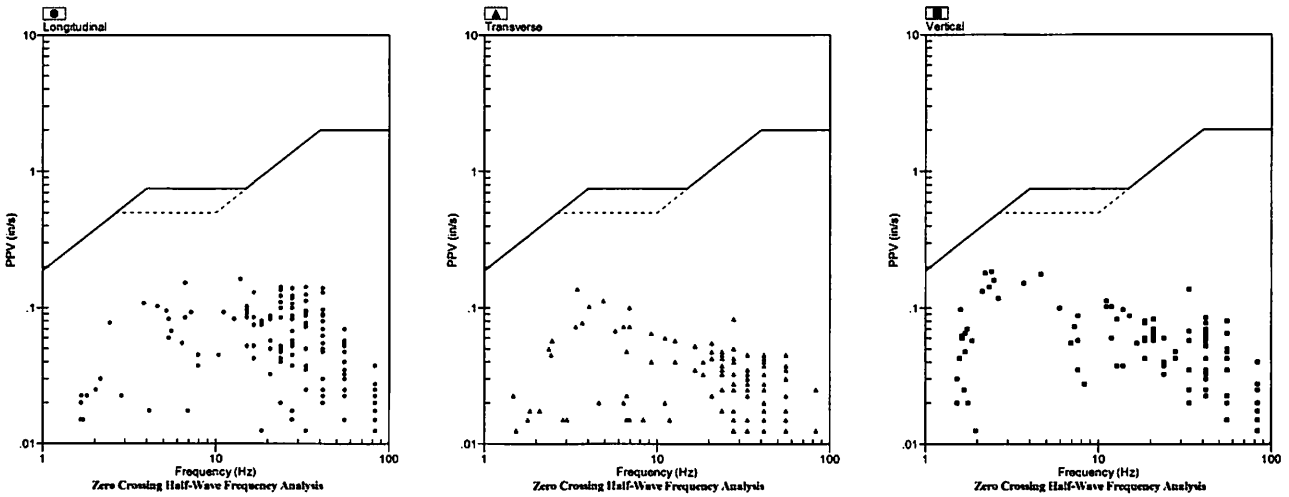
Summary Data

	L	T	V
PPV (in/s)	0.163	0.138	0.185
FREQ (Hz)	13.9	3.5	2.4
PD (.001")	4.27	4.28	12.63
PPA (g)	0.091	0.046	0.072
Peak Vector Sum:	0.215 in/s		
Peak Air Pressure:	116 db		
	0.00182 PSI @ 9.3 Hz		

Additional Info:

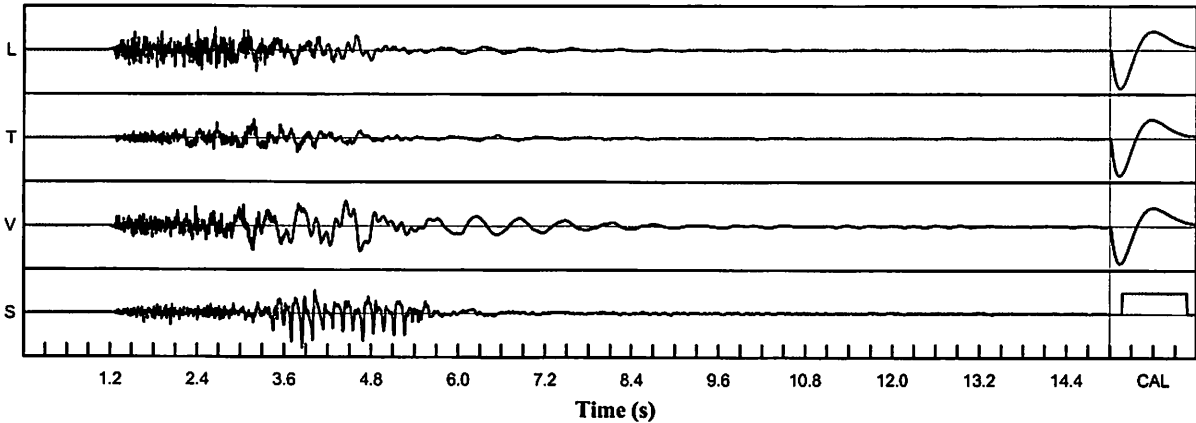
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 7



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

Seismic Analysis

USBM/Velocity Waveform Report

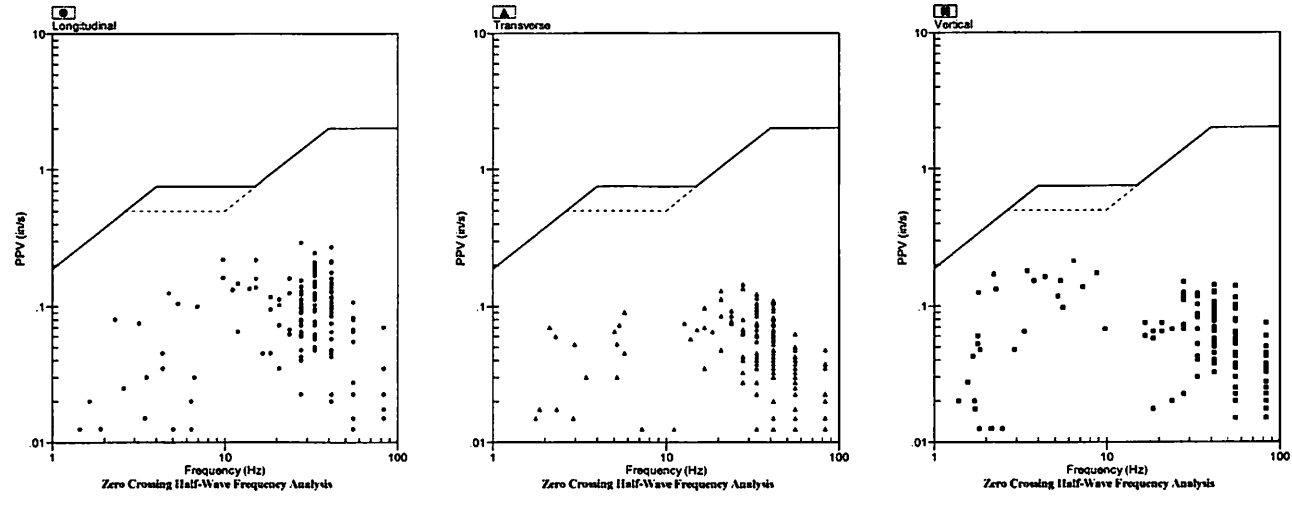
Serial No: 5148 v3.67
Date: 09/09/2019 11:34:32
Event No: 8
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.293	0.145	0.213
FREQ (Hz)	27.8	27.8	6.4
PD (.001")	4.60	3.82	10.03
PPA (g)	0.169	0.078	0.098
Peak Vector Sum:	0.315 in/s		
Peak Air Pressure:	110 db		
	0.00110 PSI @ 5.7 Hz		

Additional Info:

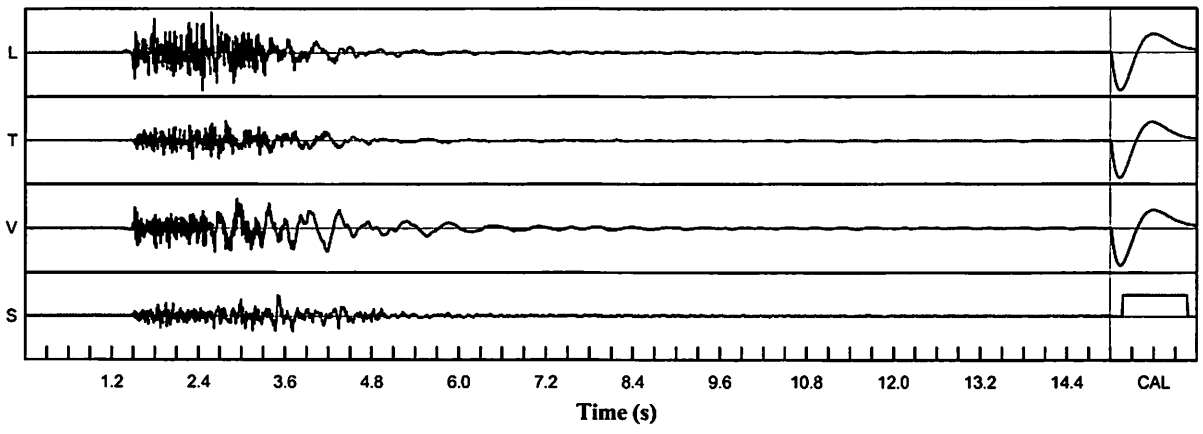
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 8



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

Seismic Analysis

USBM/Velocity Waveform Report

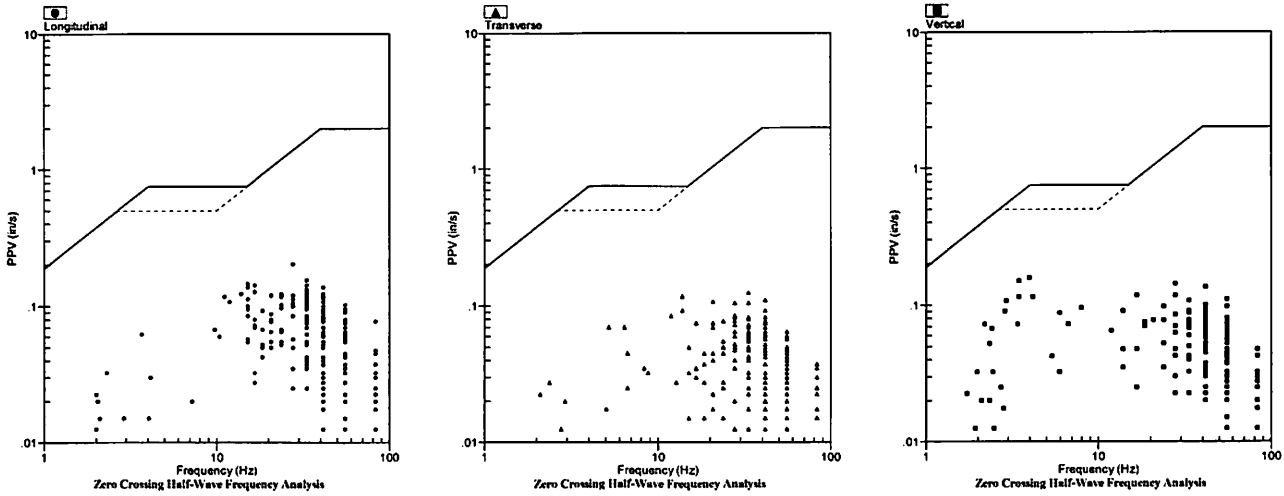
Serial No: 5148 v3.67
Date: 09/13/2019 14:19:25
Event No: 9
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.203	0.125	0.158
FREQ (Hz)	27.8	33.3	4.0
PD (.001")	2.86	2.60	5.52
PPA (g)	0.098	0.065	0.085
Peak Vector Sum:	0.223 in/s		
Peak Air Pressure:	106 db		
	0.00064 PSI @ 11.1 Hz		

Additional Info:

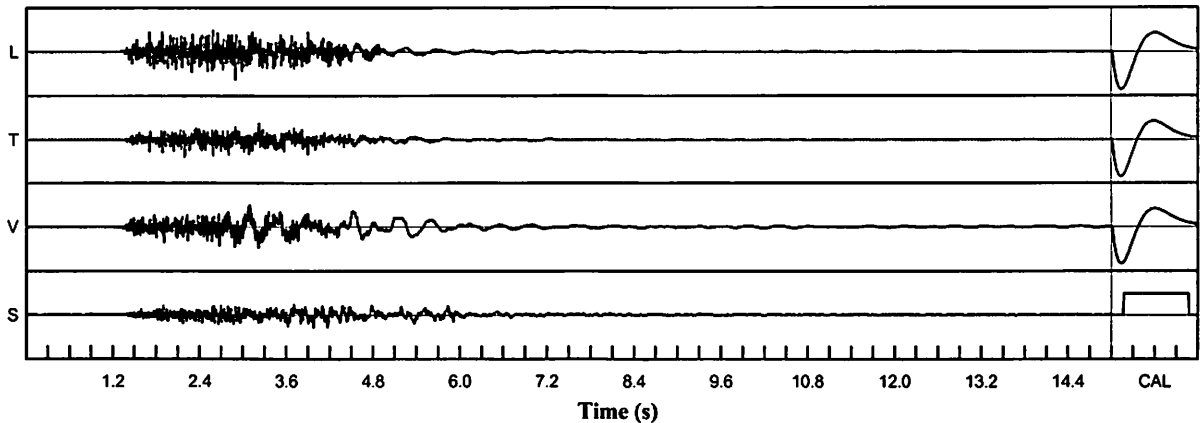
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 9



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

Seismic Analysis

USBM/Velocity Waveform Report

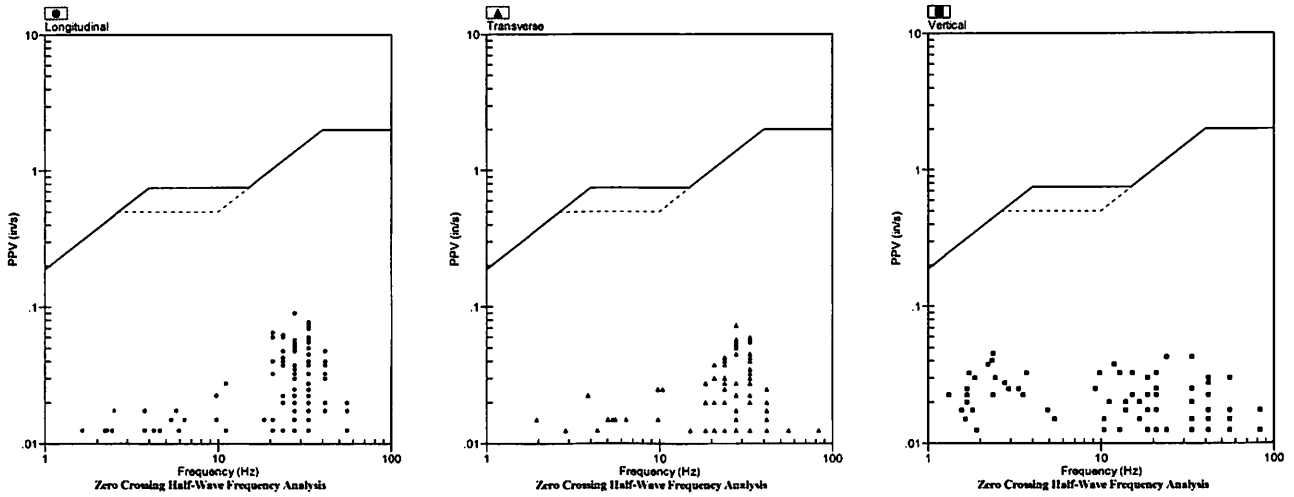
Serial No: 5148 v3.67
Date: 09/17/2019 14:18:05
Event No: 10
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.093	0.073	0.048
FREQ (Hz)	27.8	27.8	20.8
PD (.001")	1.00	1.26	2.82
PPA (g)	0.046	0.039	0.026
Peak Vector Sum:	0.110 in/s		
Peak Air Pressure:	91 db		
	0.00025 PSI @ 5.6 Hz		

Additional Info:

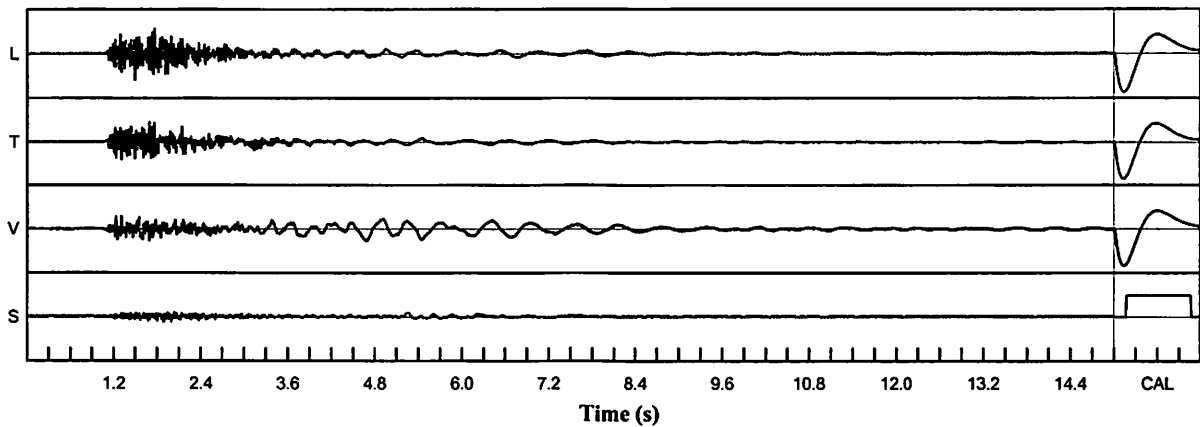
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 10



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

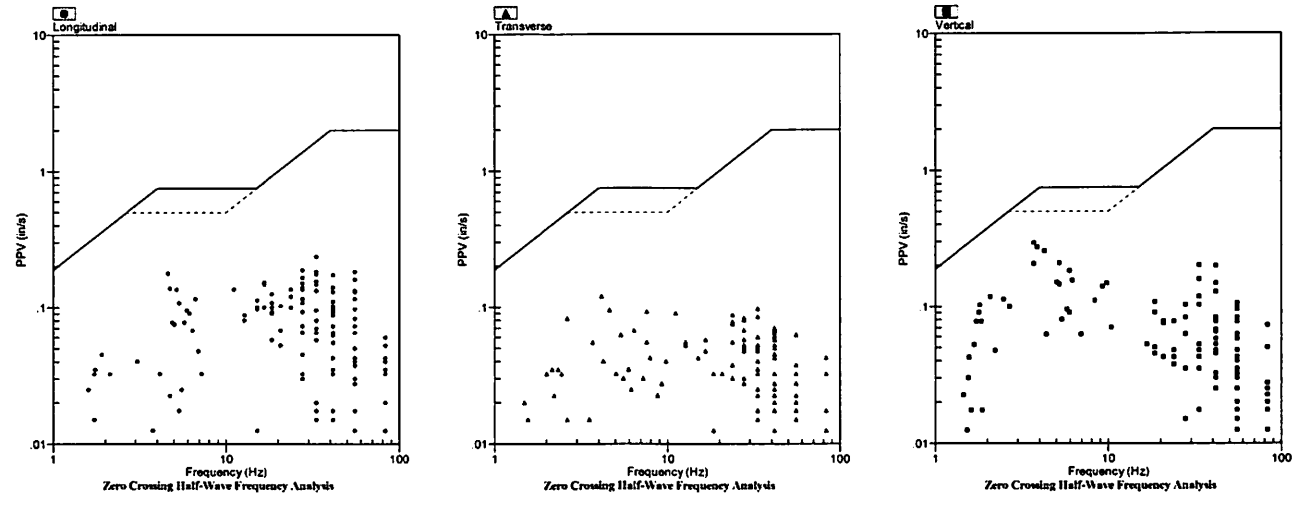
Serial No: 5148 v3.67
Date: 09/18/2019 13:16:21
Event No: 11
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.235	0.120	0.293
FREQ (Hz)	33.3	4.2	3.7
PD (.001")	5.11	4.10	12.18
PPA (g)	0.156	0.052	0.124
Peak Vector Sum:	0.323 in/s		
Peak Air Pressure:	113 db		
	0.00139 PSI @ 5.4 Hz		

Additional Info:

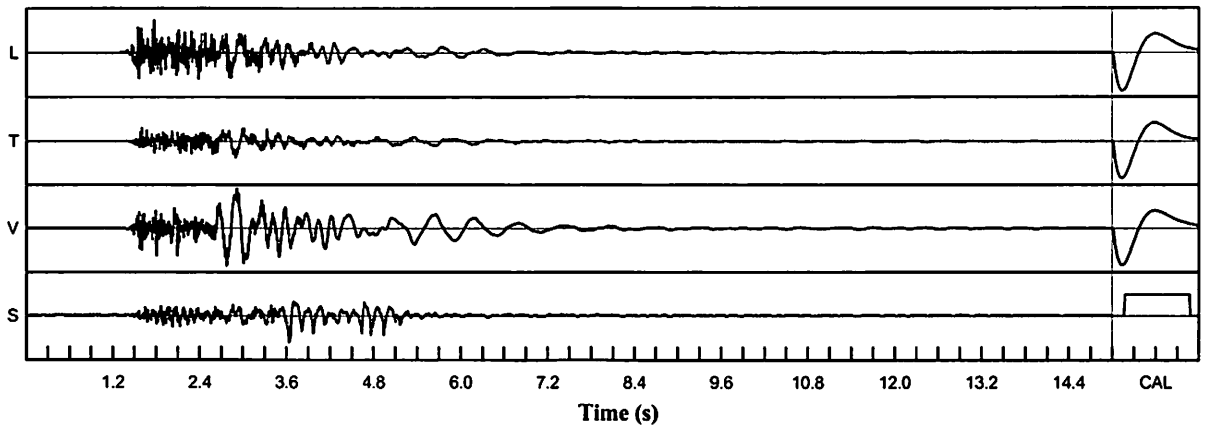
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
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 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 11



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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/01/2019 13:45:32
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: 0.050 in/s

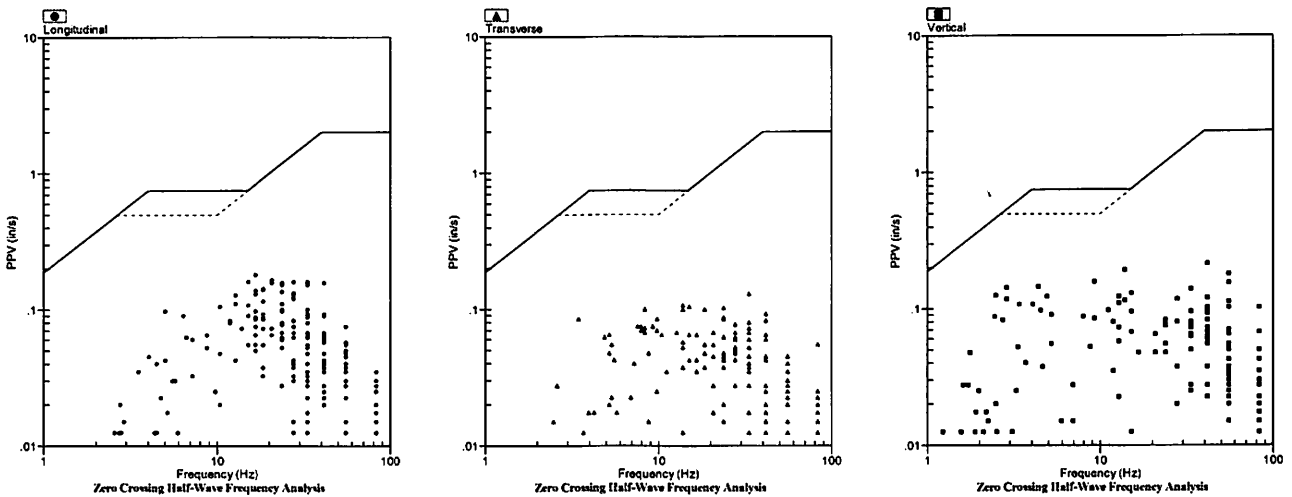
Summary Data

	L	T	V
PPV (in/s)	0.180	0.130	0.215
FREQ (Hz)	16.7	33.3	41.7
PD (.001")	2.88	3.19	7.70
PPA (g)	0.117	0.065	0.150
Peak Vector Sum:	0.245 in/s		
Peak Air Pressure:	109 db		
	0.00096 PSI @ 4.1 Hz		

Additional Info:

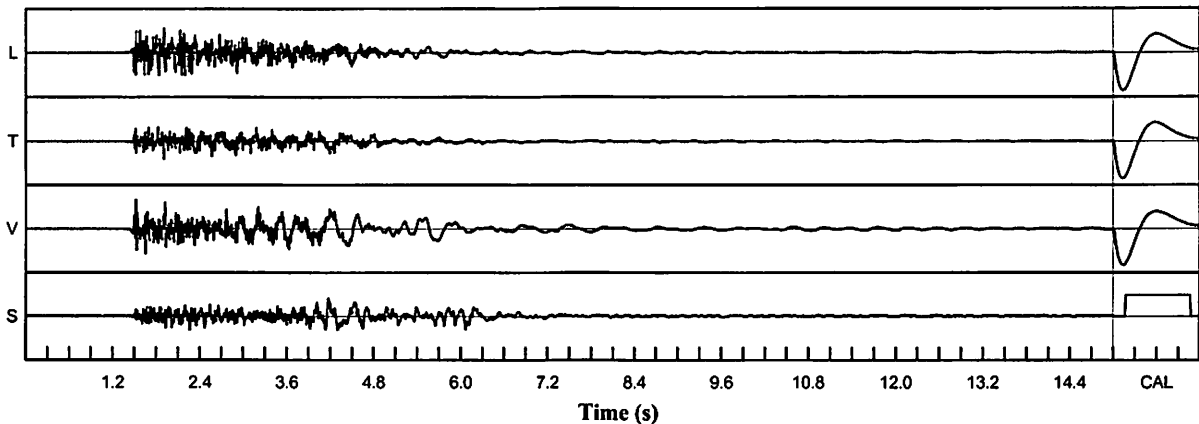
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
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USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 12



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

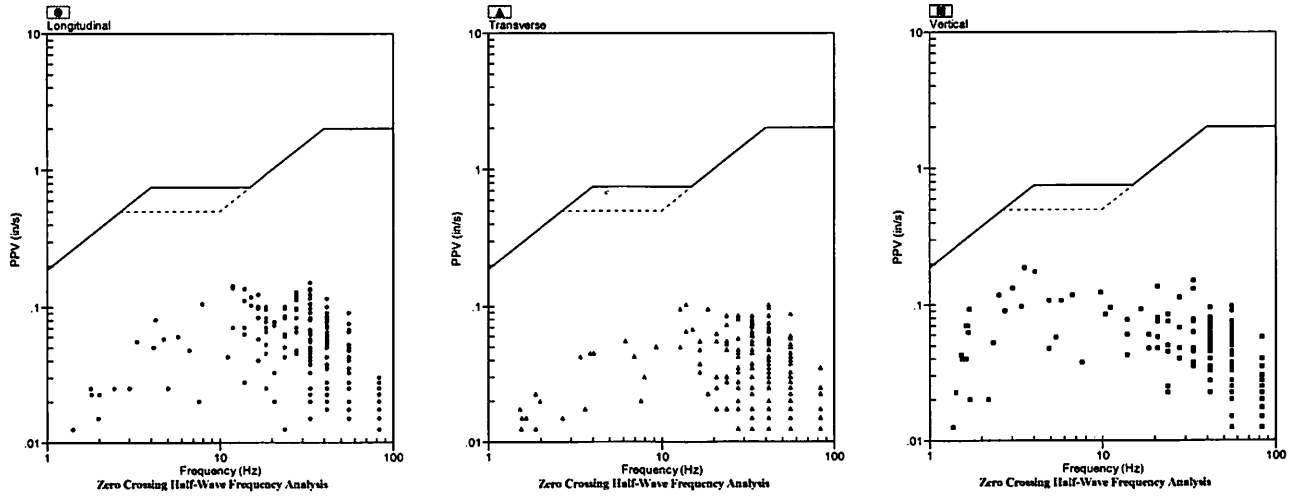
Serial No: 5148 v3.67
Date: 10/02/2019 13:30:19
Event No: 13
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.150	0.103	0.188
FREQ (Hz)	33.3	41.7	3.5
PD (.001")	3.14	2.36	7.14
PPA (g)	0.085	0.065	0.085
Peak Vector Sum:	0.230 in/s		
Peak Air Pressure:	109 db		
	0.00089 PSI @ 5.1 Hz		

Additional Info:

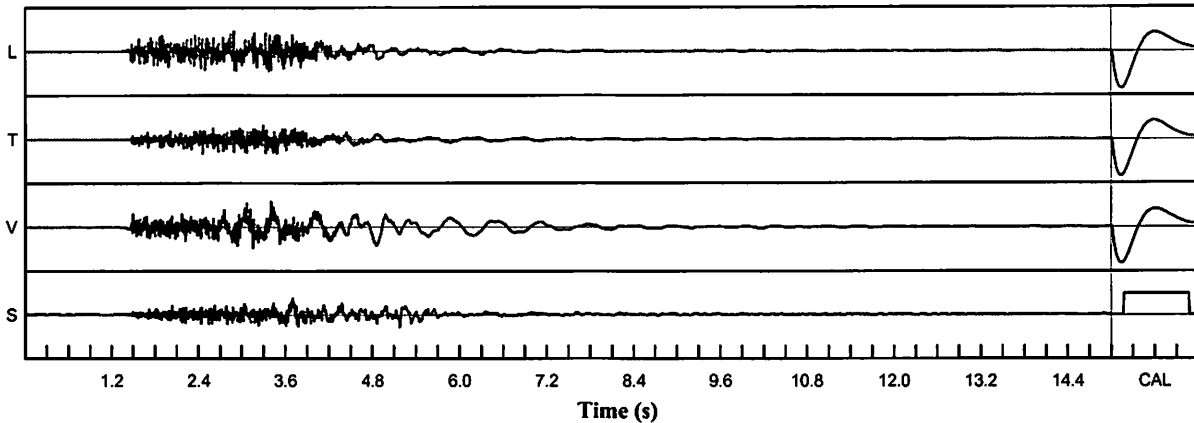
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 13



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

Seismic Analysis

USBM/Velocity Waveform Report

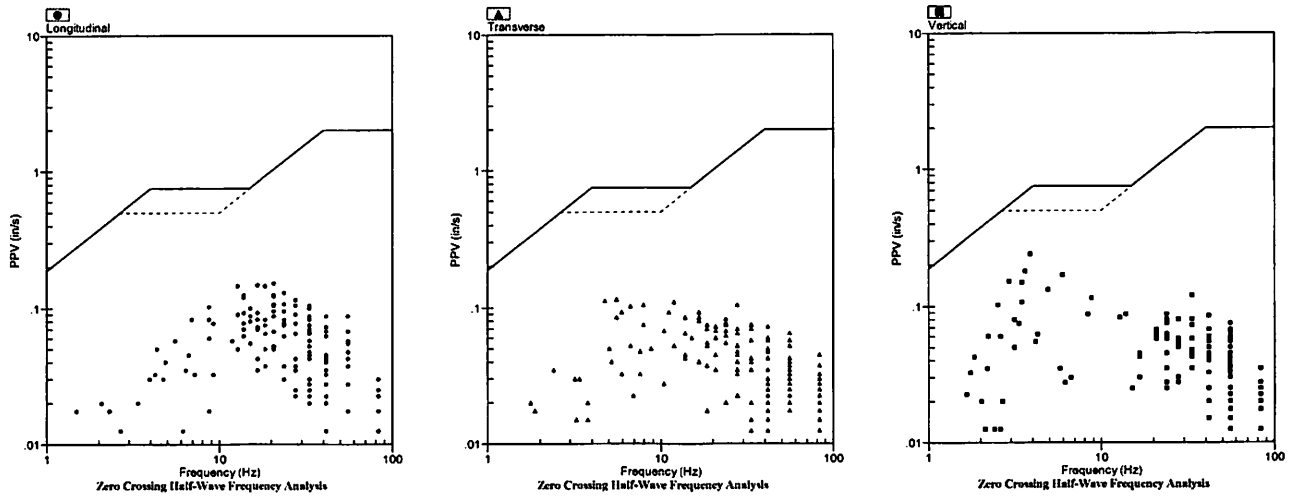
Serial No: 5148 v3.67
Date: 10/07/2019 13:15:47
Event No: 14
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 17040 SW 53 Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.153	0.115	0.240
FREQ (Hz)	20.8	5.6	3.9
PD (.001")	3.20	2.94	6.61
PPA (g)	0.078	0.059	0.072
Peak Vector Sum:	0.253 in/s		
Peak Air Pressure:	116 db		
	0.00189 PSI @ 27.8 Hz		

Additional Info:

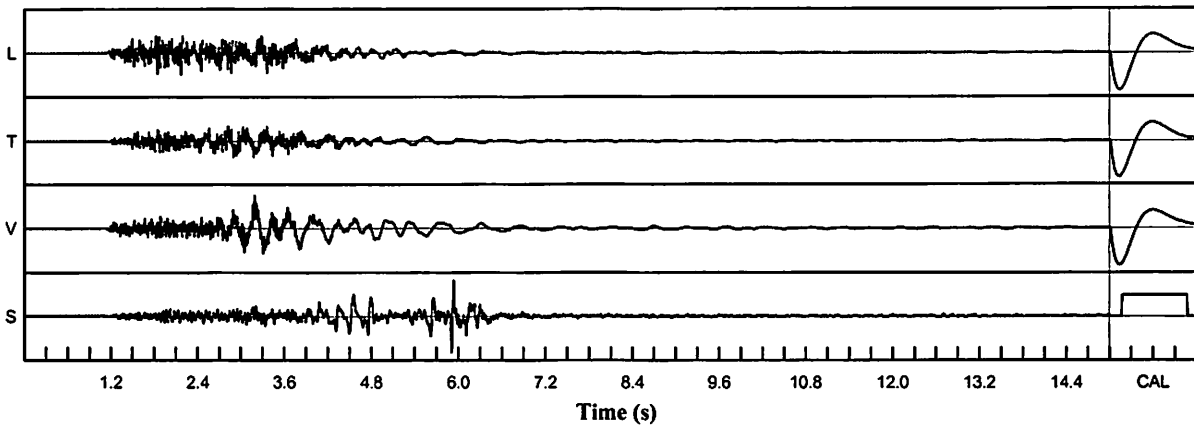
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 14



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

Siesmic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/22/2019 14:31:42
Event No: 1
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: 0.050 in/s

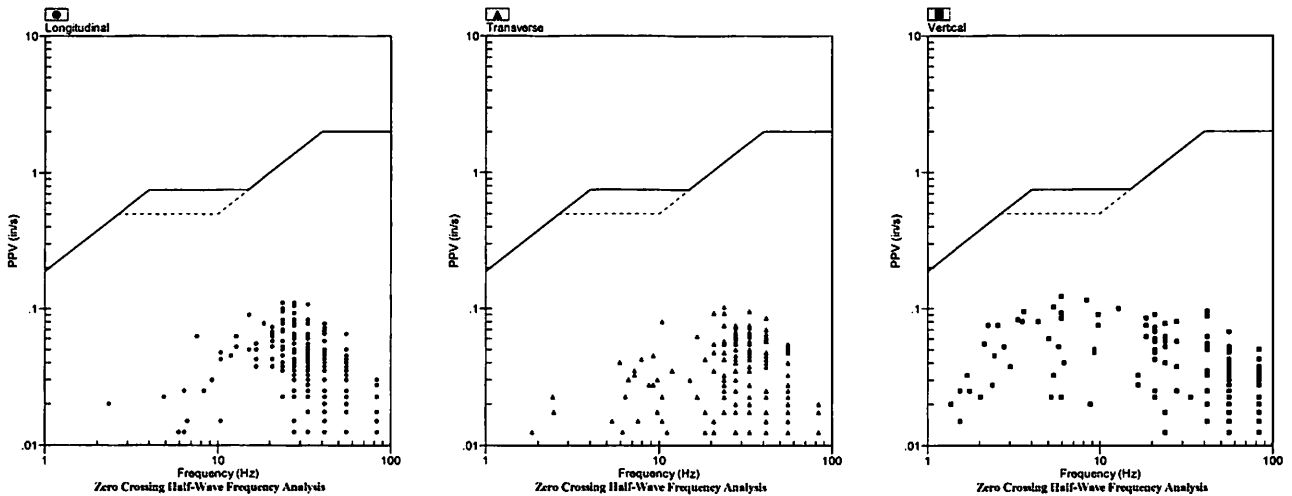
Summary Data

	L	T	V
PPV (in/s)	0.110	0.103	0.123
FREQ (Hz)	27.8	23.8	6.0
PD (.001")	1.83	1.77	4.49
PPA (g)	0.072	0.052	0.072
Peak Vector Sum:	0.140 in/s		
Peak Air Pressure:	111 db		
	0.00121 PSI @ 6.7 Hz		

Additional Info:

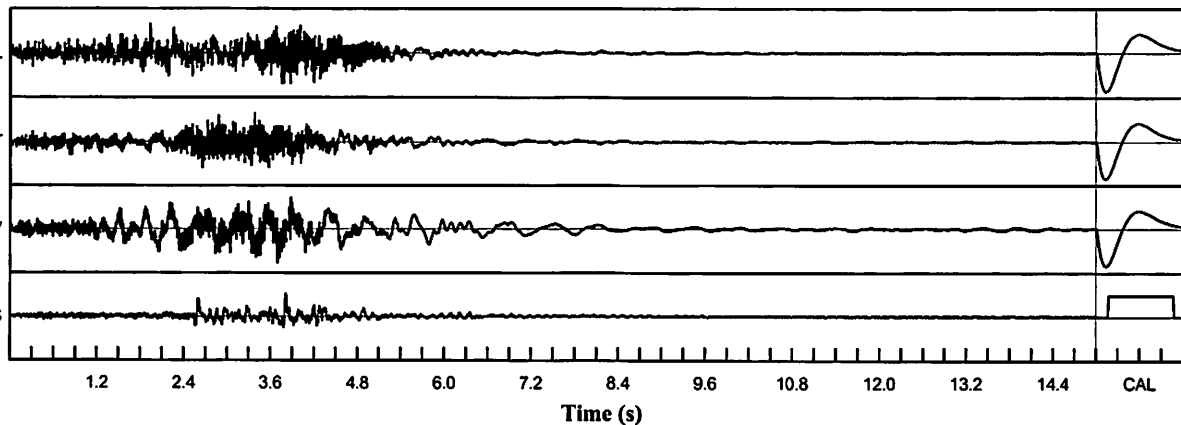
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 1



Velocity Waveform Graph Scale

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

Siesmic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/24/2019 13:32:20
Event No: 2
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: 0.050 in/s

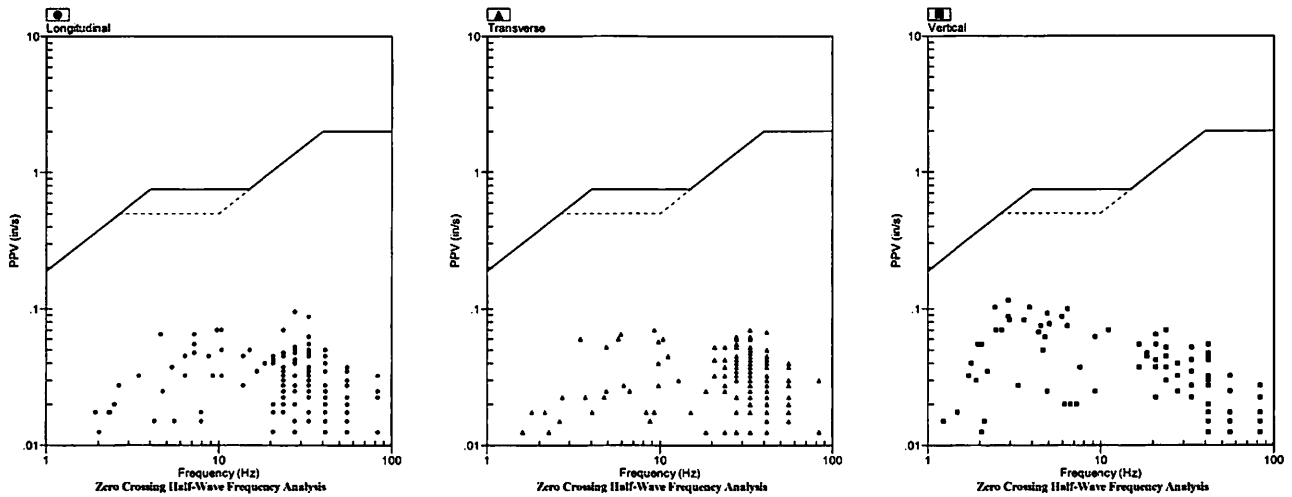
Summary Data

	L	T	V
PPV (in/s)	0.095	0.070	0.115
FREQ (Hz)	27.8	33.3	2.9
PD (.001")	1.63	2.22	5.92
PPA (g)	0.059	0.046	0.039
Peak Vector Sum:	0.128 in/s		
Peak Air Pressure:	110 db		
	0.00103 PSI @ 7.6 Hz		

Additional Info:

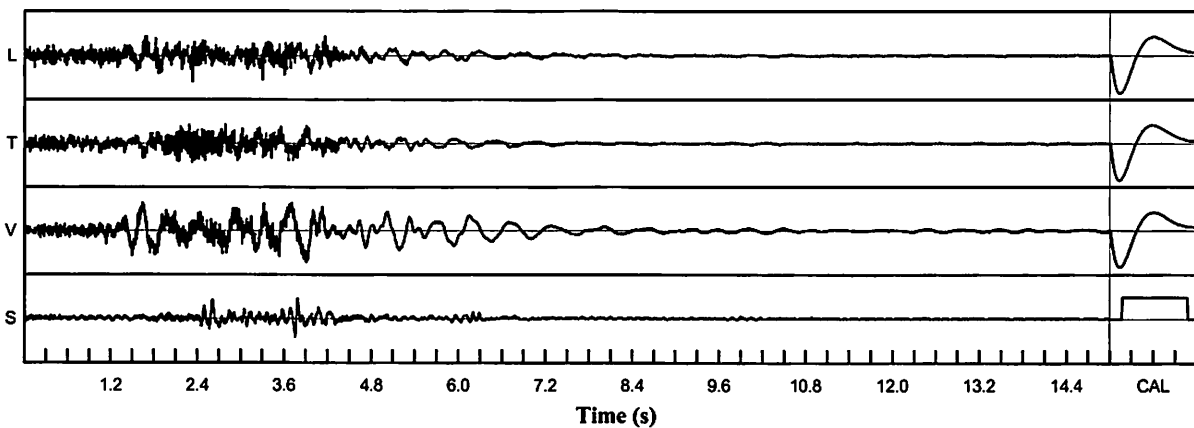
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 2



Velocity Waveform Graph Scale

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

Siesmic Analysis

USBM/Velocity Waveform Report

Serial No: 5148 v3.67
Date: 10/25/2019 11:19:36
Event No: 3
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: 0.050 in/s

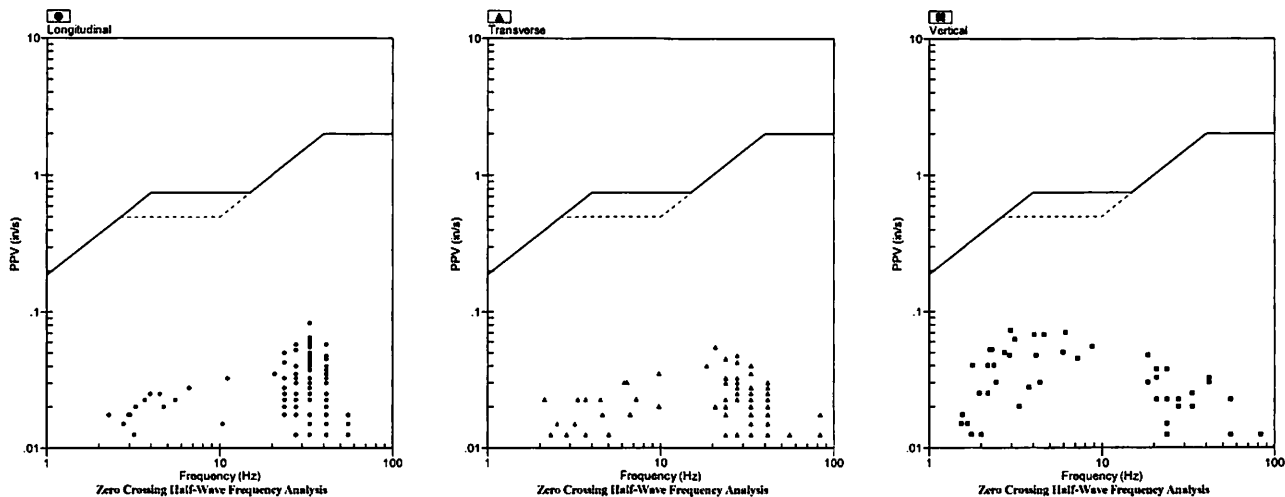
Summary Data

	L	T	V
PPV (in/s)	0.083	0.055	0.073
FREQ (Hz)	33.3	20.8	3.0
PD (.001")	1.09	1.34	3.49
PPA (g)	0.046	0.026	0.033
Peak Vector Sum:	0.093 in/s		
Peak Air Pressure:	110 db		
	0.00103 PSI @ 6.2 Hz		

Additional Info:

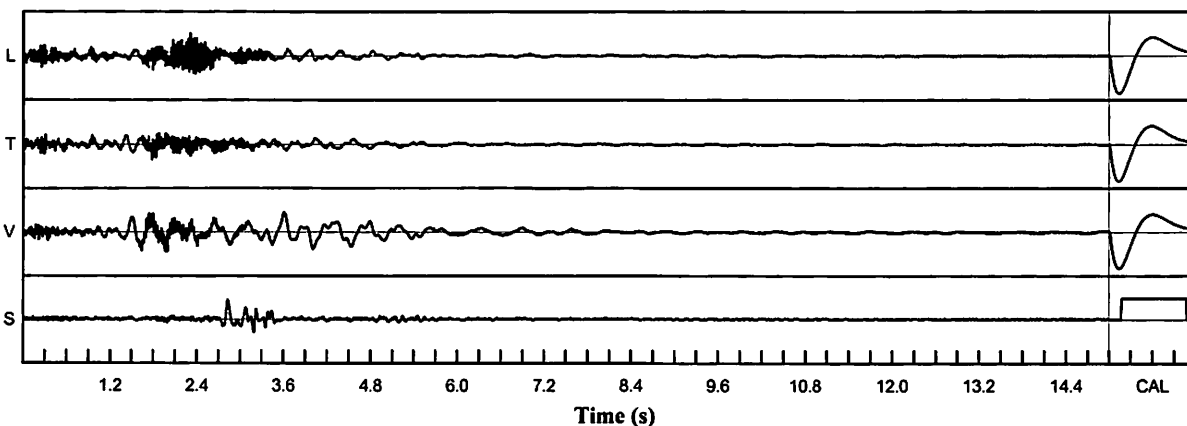
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 3



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: 09/05/2019 13:17:13
Event No: 1
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

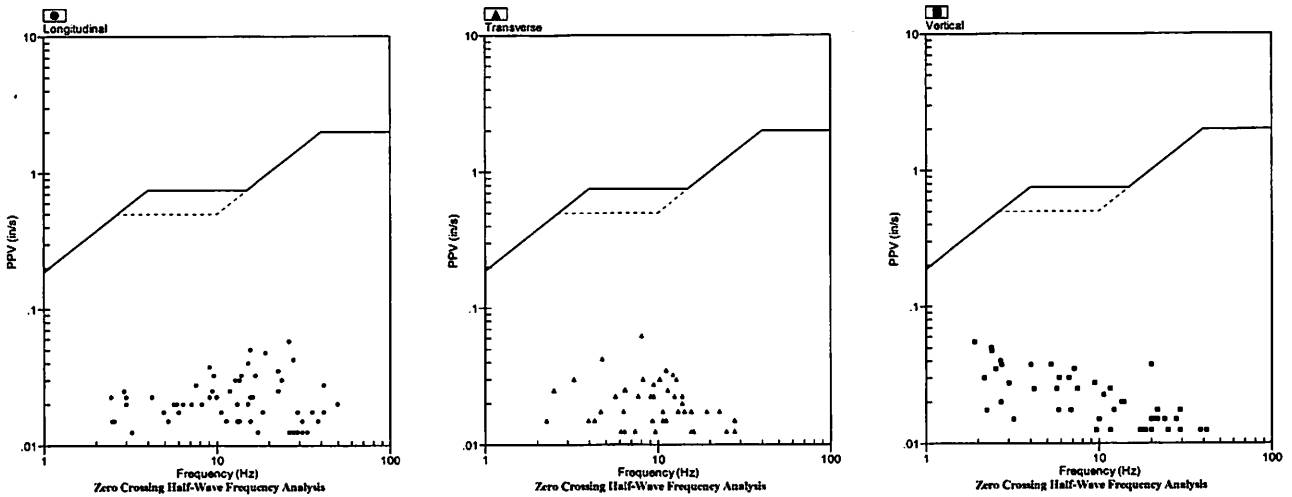
Summary Data

	L	T	V
PPV (in/s)	0.060	0.063	0.055
FREQ (Hz)	10.2	8.1	1.9
PD (.001")	1.60	1.67	3.58
PPA (g)	0.033	0.020	0.020
Peak Vector Sum:	0.075 in/s		
Peak Air Pressure:	110 db		
	0.00087 PSI @ 6.3 Hz		

Additional Info:

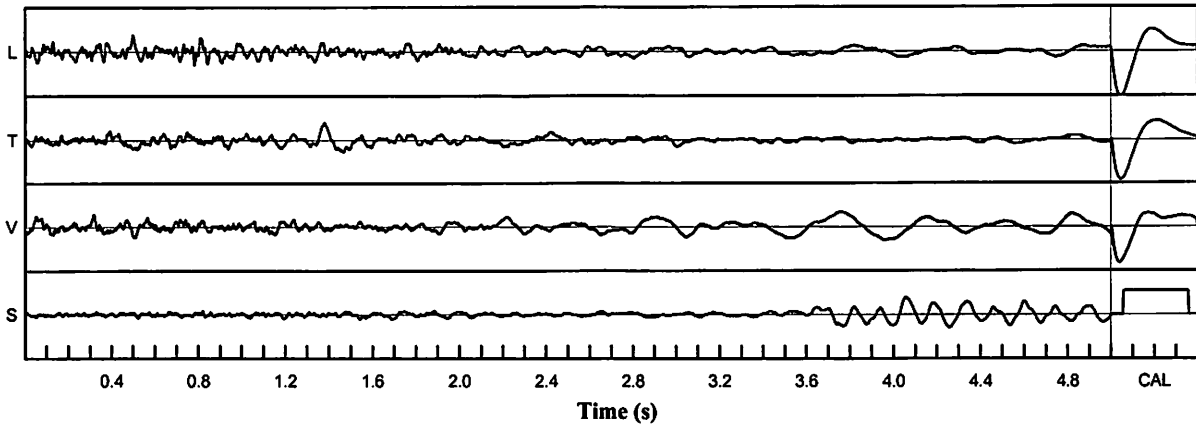
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 1



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 09/09/2019 11:34:43
Event No: 2
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

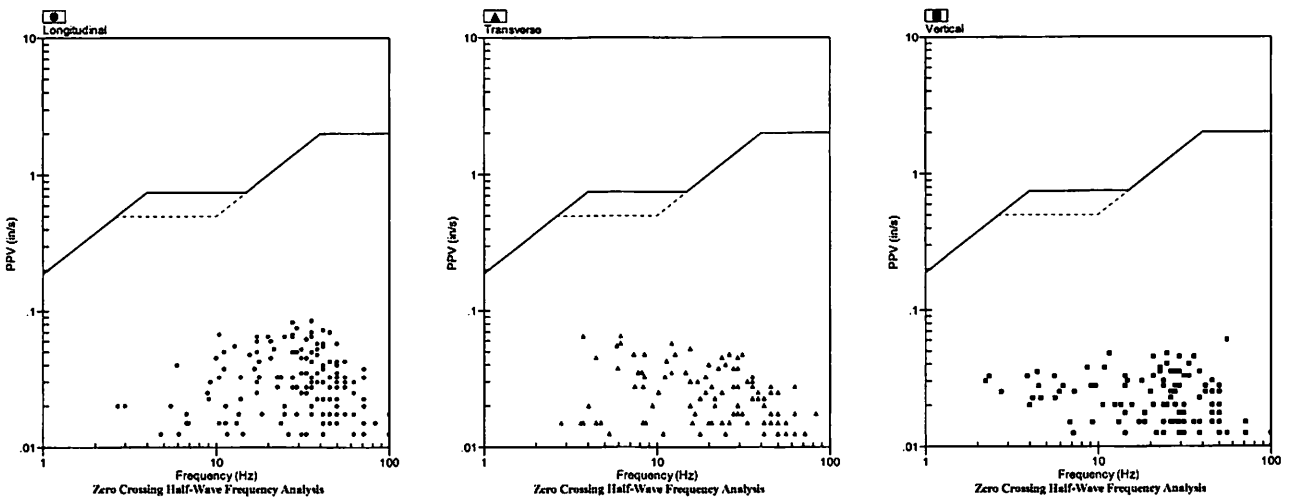
Summary Data

	L	T	V
PPV (in/s)	0.085	0.065	0.060
FREQ (Hz)	35.7	6.2	29.4
PD (.001")	1.00	2.25	1.87
PPA (g)	0.065	0.033	0.039
Peak Vector Sum:	0.088 in/s		
Peak Air Pressure:	101 db		
	0.00036 PSI @ 26.3 Hz		

Additional Info:

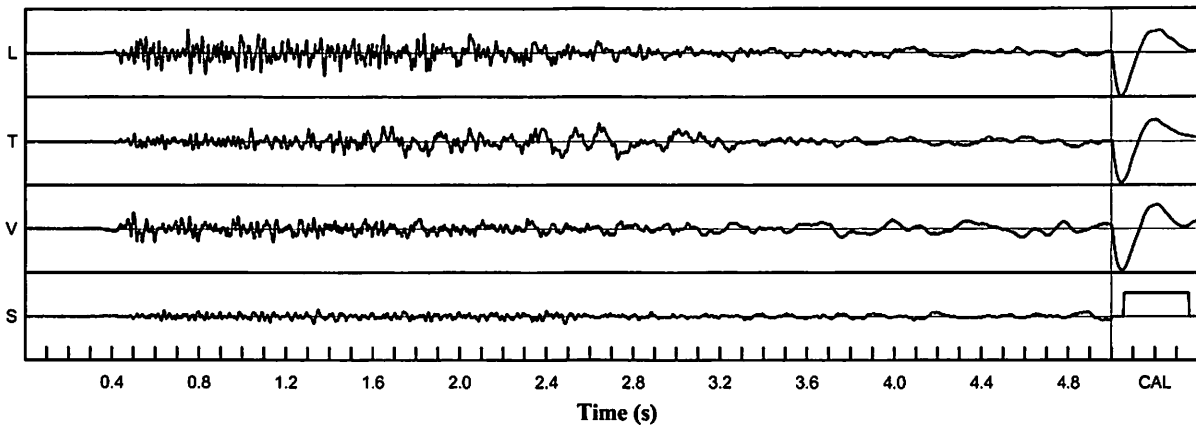
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 2



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 09/13/2019 14:19:41
Event No: 3
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

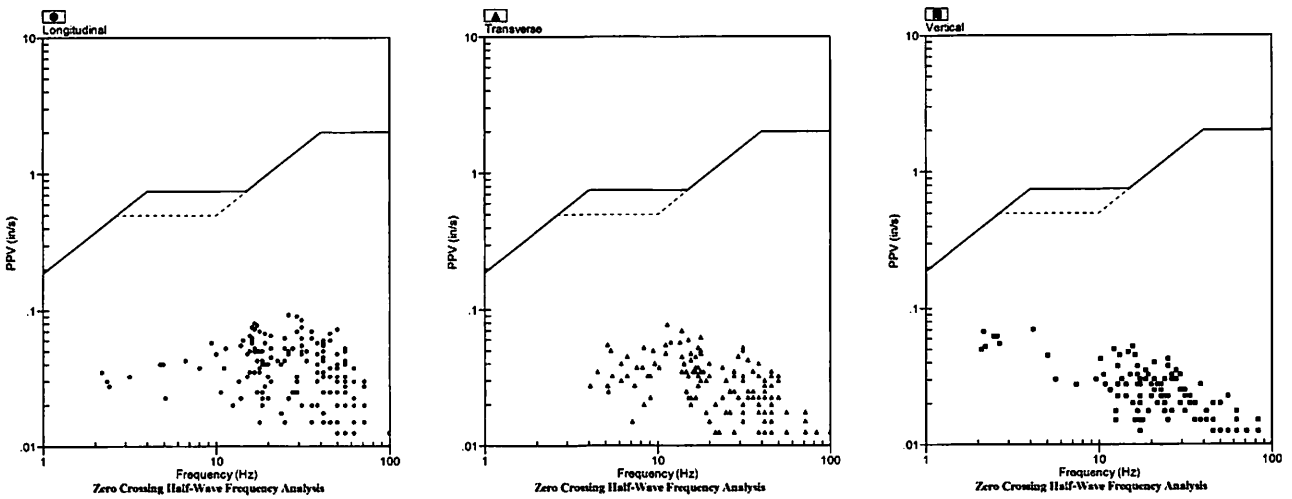
Summary Data

	L	T	V
PPV (in/s)	0.093	0.078	0.070
FREQ (Hz)	26.3	11.4	4.2
PD (.001")	1.64	1.41	3.47
PPA (g)	0.059	0.039	0.026
Peak Vector Sum:	0.108 in/s		
Peak Air Pressure:	101 db		
	0.00037 PSI @ 29.4 Hz		

Additional Info:

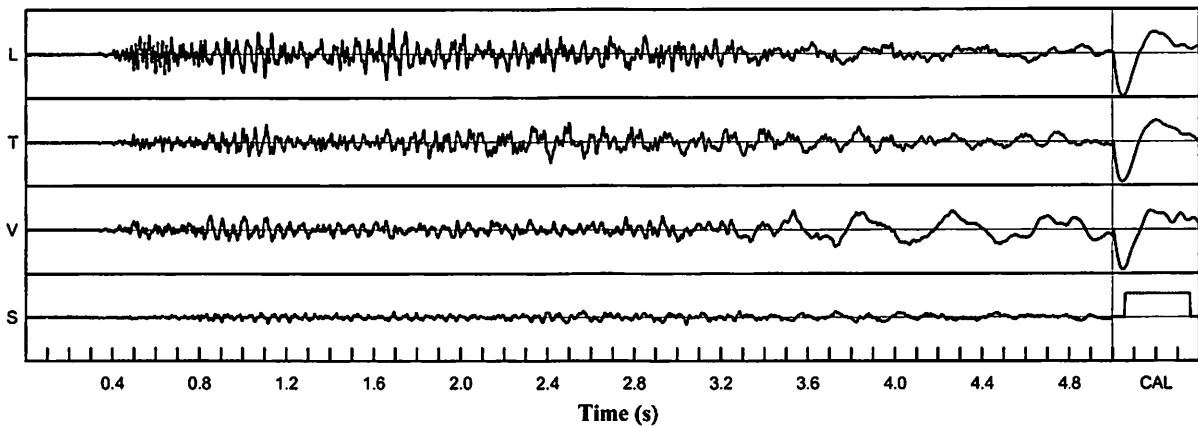
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 3



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 09/18/2019 13:16:43
Event No: 4
Record Time: 5.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

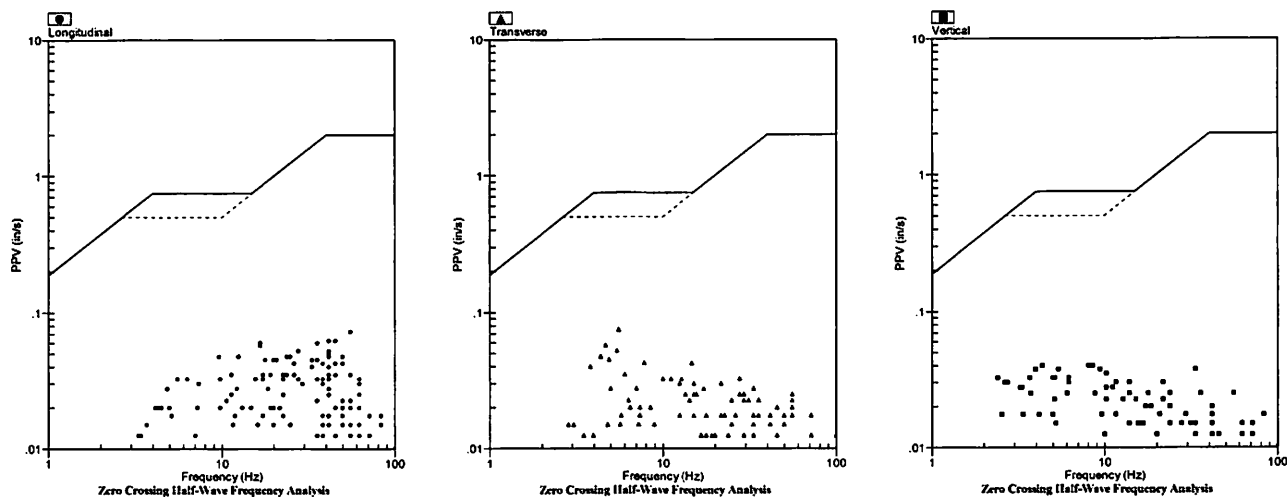
Summary Data

	L	T	V
PPV (in/s)	0.075	0.075	0.050
FREQ (Hz)	31.3	5.6	27.8
PD (.001")	0.93	2.49	1.85
PPA (g)	0.059	0.033	0.033
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	94 db		
	0.00021 PSI @ 16.1 Hz		

Additional Info:

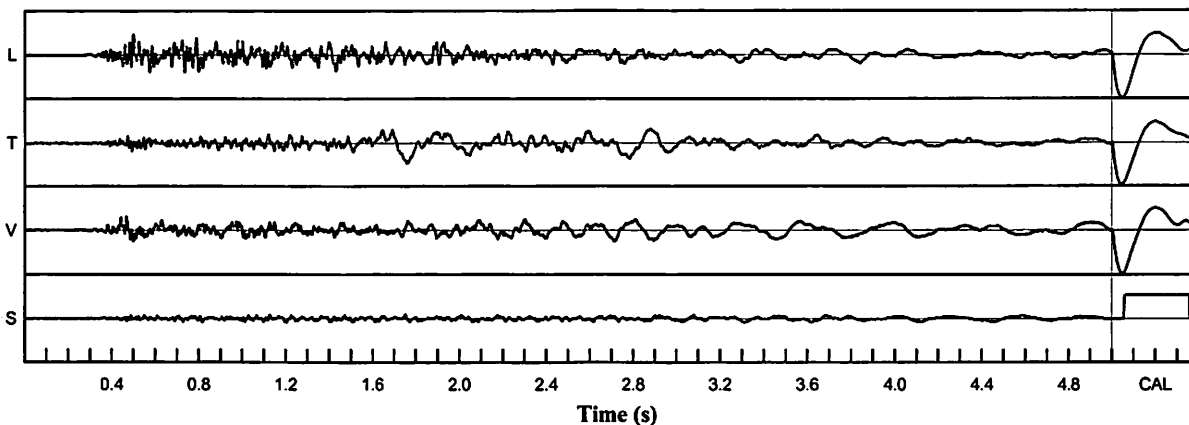
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 4



Velocity Waveform Graph Scale

Time Scale: 0.100 s
Seismic Scale: +/- 0.160 in/s
Sound Scale: +/- 0.0023 PSI

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 10/01/2019 13:45:36
Event No: 5
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

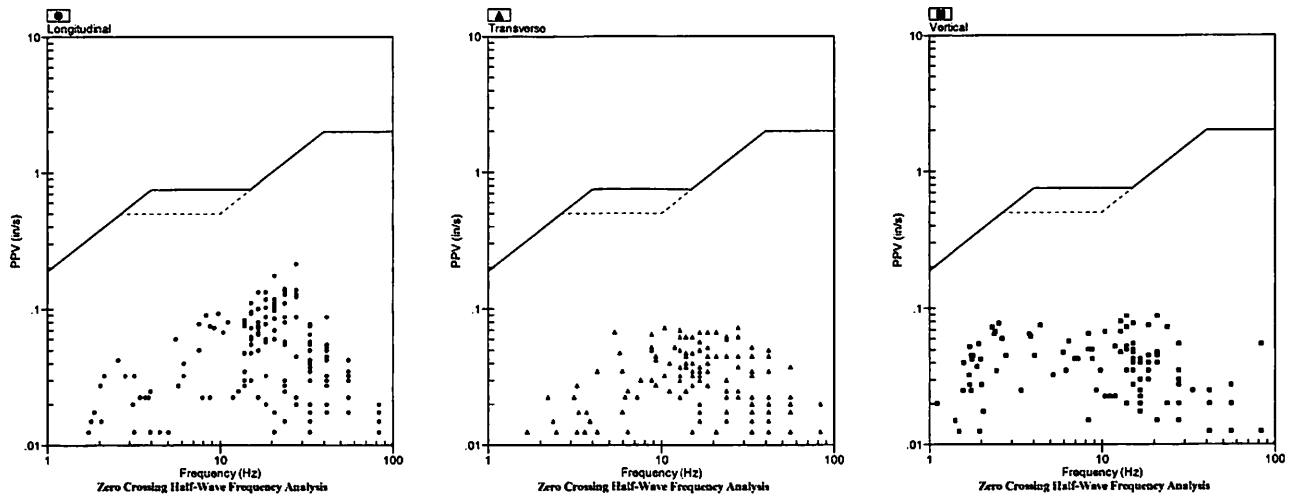
Summary Data

	L	T	V
PPV (in/s)	0.213	0.073	0.103
FREQ (Hz)	27.8	27.8	12.8
PD (.001")	2.20	1.98	5.05
PPA (g)	0.104	0.039	0.039
Peak Vector Sum:	0.218 in/s		
Peak Air Pressure:	105 db		
	0.00059 PSI @ 27.8 Hz		

Additional Info:

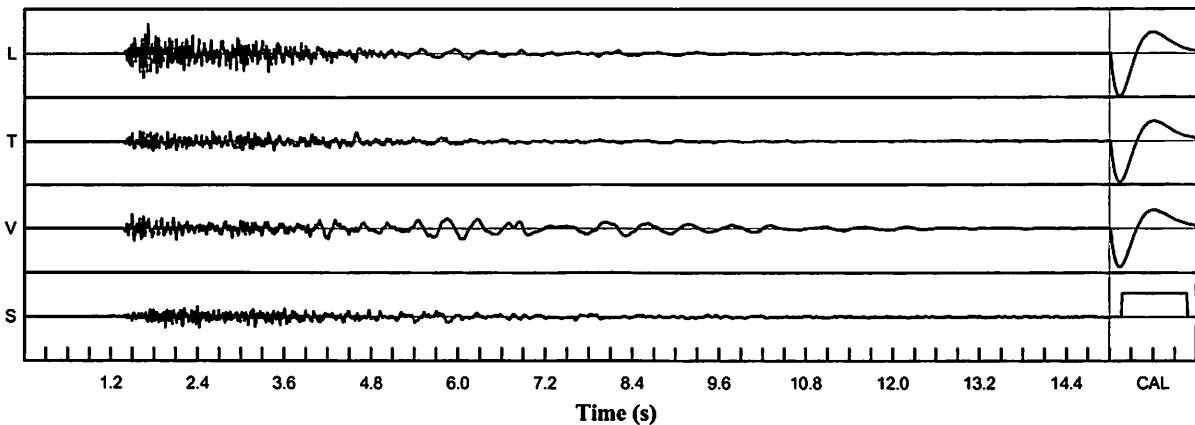
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 5



Velocity Waveform Graph Scale

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

Seismic Analysis

USBM/Velocity Waveform Report

Serial No: 5149 v3.67
Date: 10/02/2019 13:30:25
Event No: 6
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

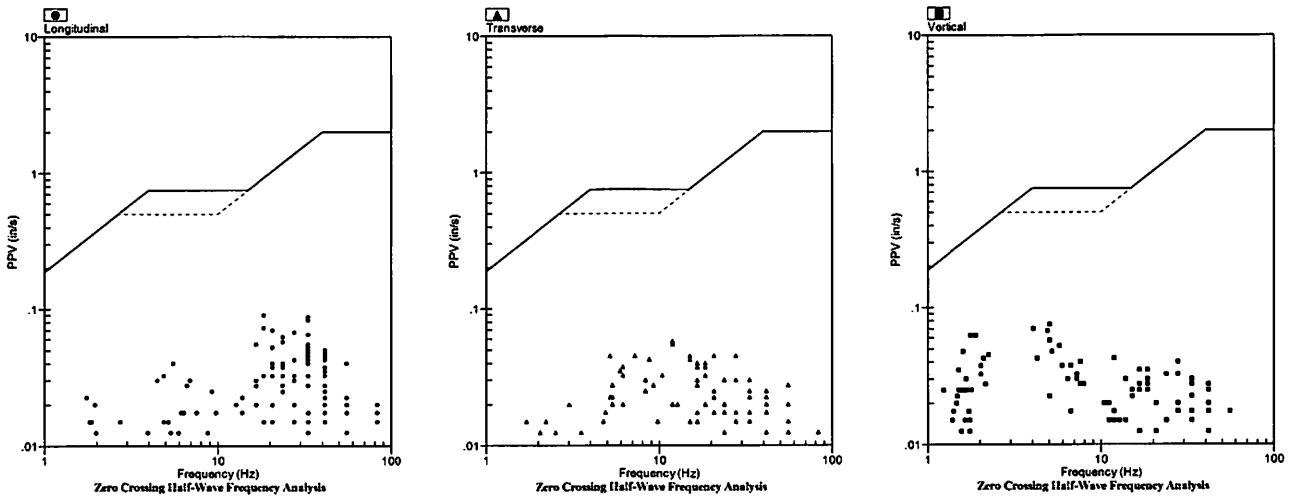
Summary Data

	L	T	V
PPV (in/s)	0.090	0.065	0.075
FREQ (Hz)	18.5	6.9	5.1
PD (.001")	1.43	1.69	4.66
PPA (g)	0.046	0.026	0.020
Peak Vector Sum:	0.093 in/s		
Peak Air Pressure:	102 db		
	0.00041 PSI @ 13.9 Hz		

Additional Info:

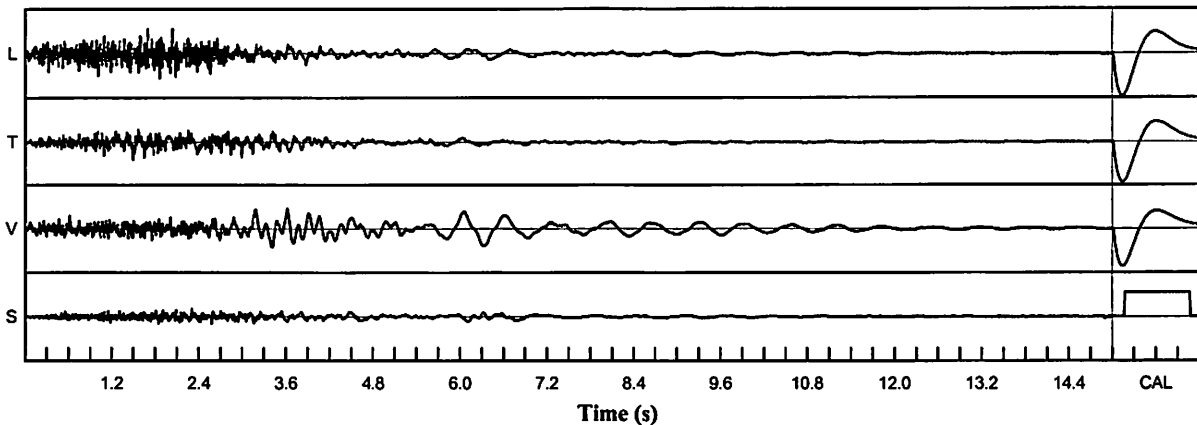
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 6



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

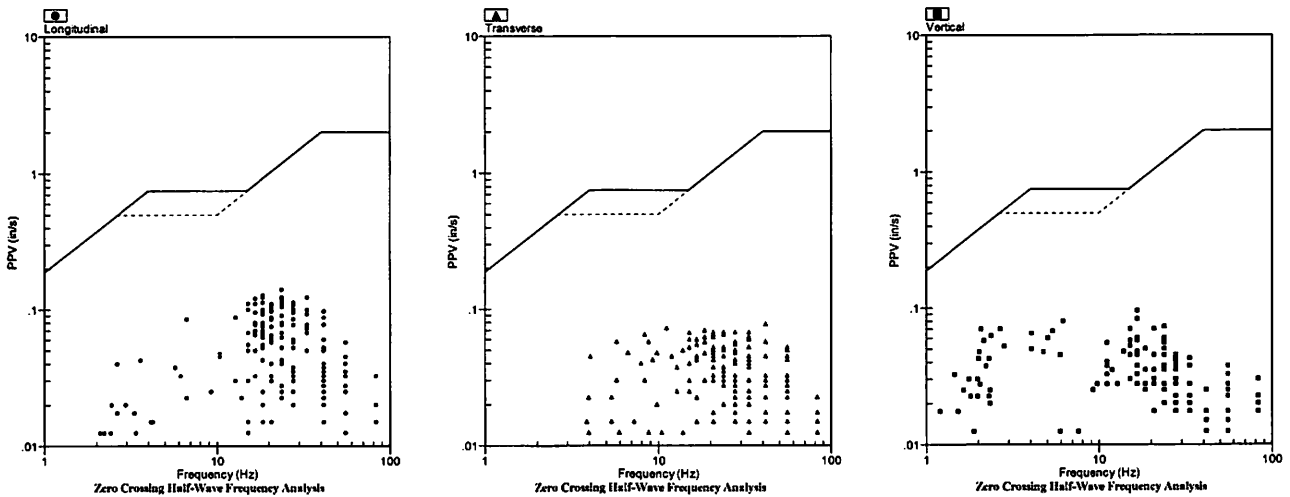
Serial No: 5149 v3.67
Date: 10/07/2019 13:15:57
Event No: 7
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.140	0.078	0.095
FREQ (Hz)	23.8	41.7	16.7
PD (.001")	1.68	1.52	4.64
PPA (g)	0.085	0.046	0.039
Peak Vector Sum:	0.155 in/s		
Peak Air Pressure:	108 db		
	0.00075 PSI @ 6.2 Hz		

Additional Info:

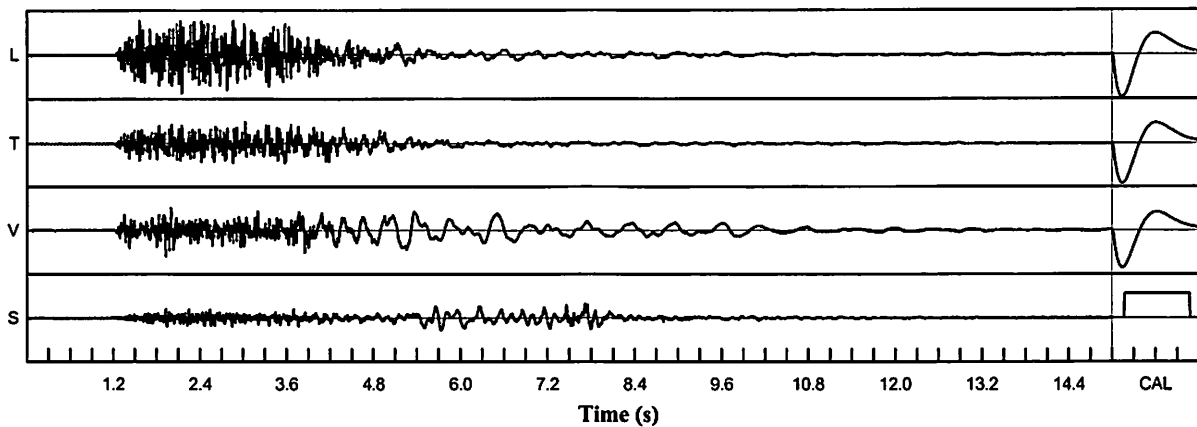
Shaketable Calibrated: 06/19/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5149 Event: 7



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: 5148 v3.67
Date: 10/18/2019 14:31:52
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: 0.050 in/s

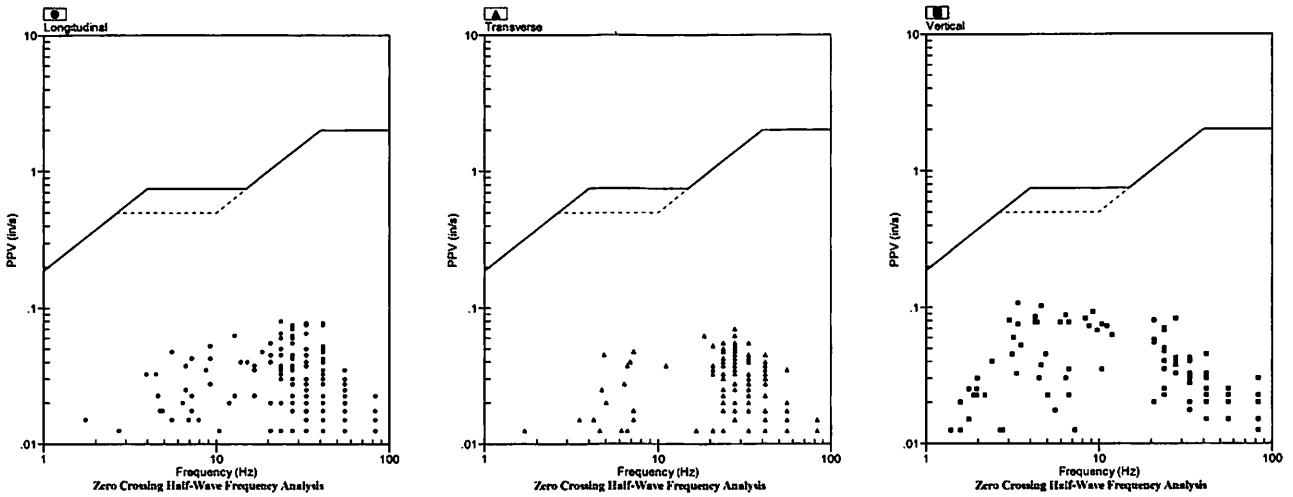
Summary Data

	L	T	V
PPV (in/s)	0.080	0.070	0.108
FREQ (Hz)	23.8	27.8	3.4
PD (.001")	1.47	1.29	3.61
PPA (g)	0.052	0.033	0.039
Peak Vector Sum:	0.115 in/s		
Peak Air Pressure:	106 db		
	0.00057 PSI @ 8.8 Hz		

Additional Info:

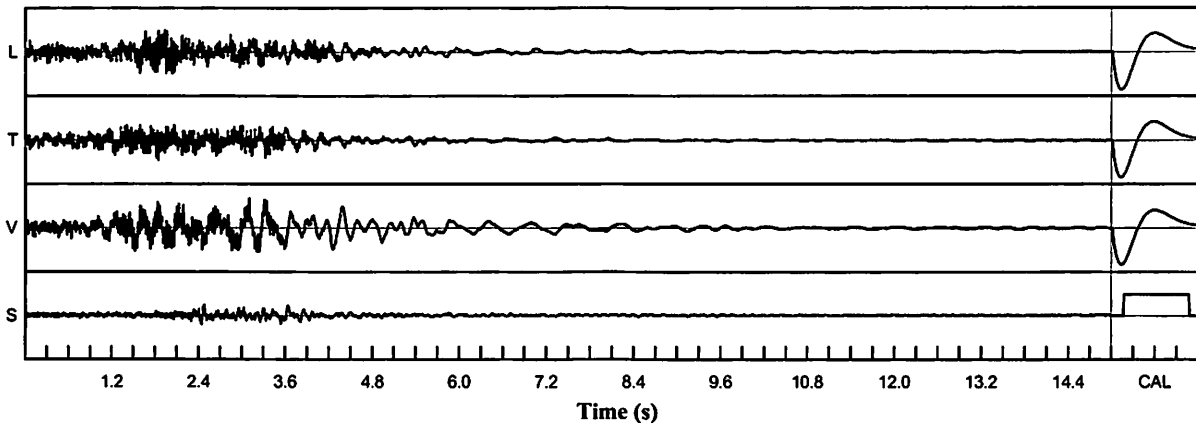
Shaketable Calibrated: 07/25/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5148 Event: 15



Velocity Waveform Graph Scale

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

Siesmic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.29
Date: 10/22/2019 14:30:28
Event No: I
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

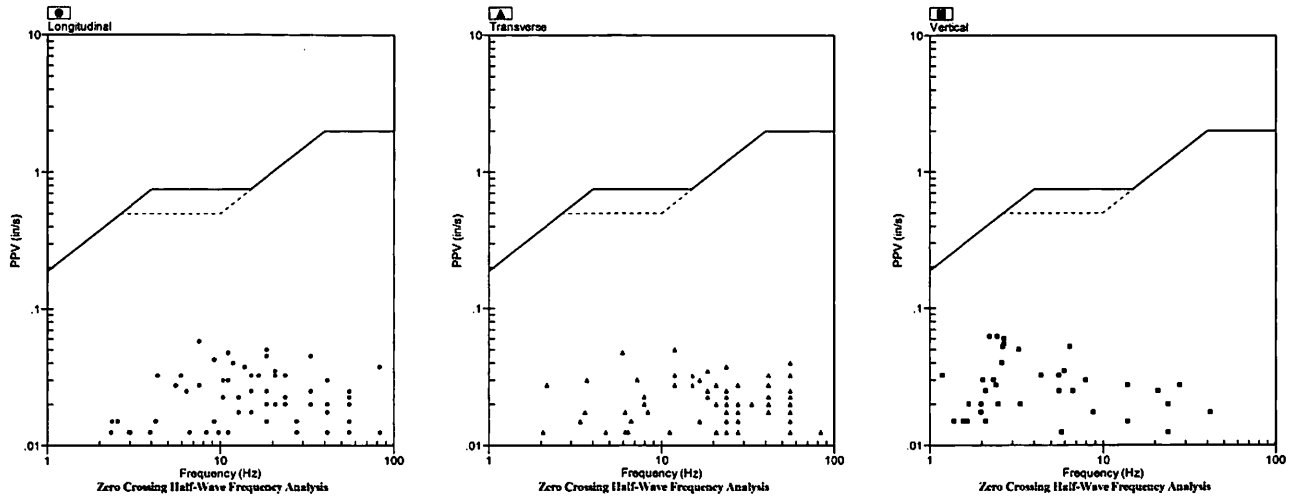
Summary Data

	L	T	V
PPV (in/s)	0.073	0.055	0.063
FREQ (Hz)	23.8	15.2	2.5
PD (.001")	1.49	1.52	3.36
PPA (g)	0.033	0.026	0.020
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	116 db		
	0.00174 PSI @ 6.4 Hz		

Additional Info:

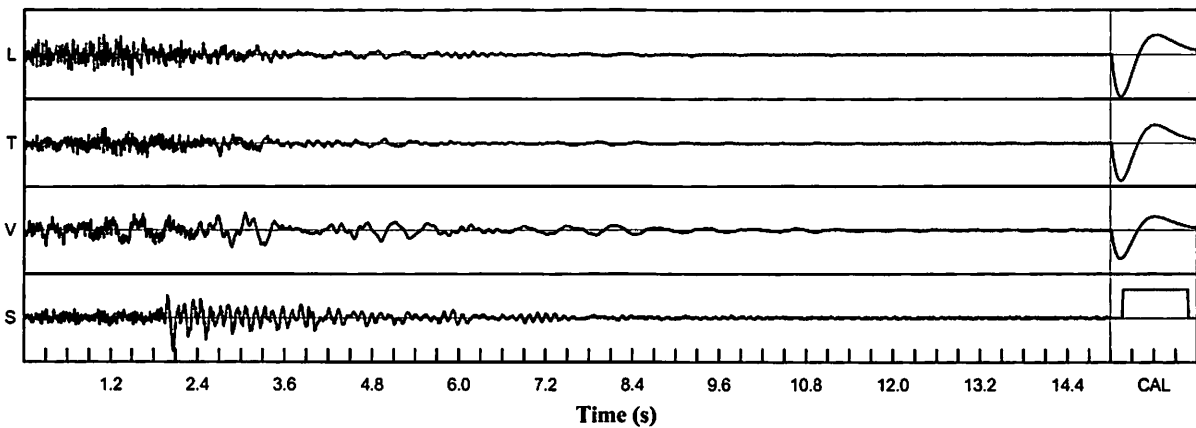
Shaketable Calibrated: 09/27/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: I



Velocity Waveform Graph Scale

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

Siesmic Analysis

USBM/Velocity Waveform Report

Serial No: 5218 v5.29
Date: 10/24/2019 13:30:59
Event No: 2
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 16171 SW 49th Ct
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.050 in/s

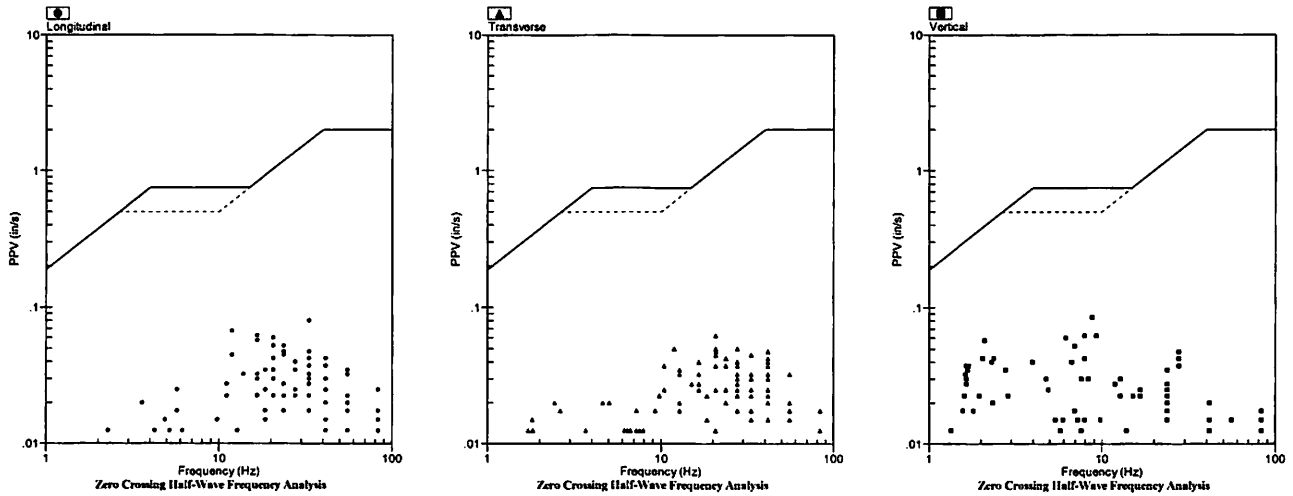
Summary Data

	L	T	V
PPV (in/s)	0.080	0.063	0.100
FREQ (Hz)	33.3	20.8	6.7
PD (.001")	1.39	1.46	3.37
PPA (g)	0.039	0.033	0.026
Peak Vector Sum:	0.108 in/s		
Peak Air Pressure:	111 db		
	0.00121 PSI @ 6.4 Hz		

Additional Info:

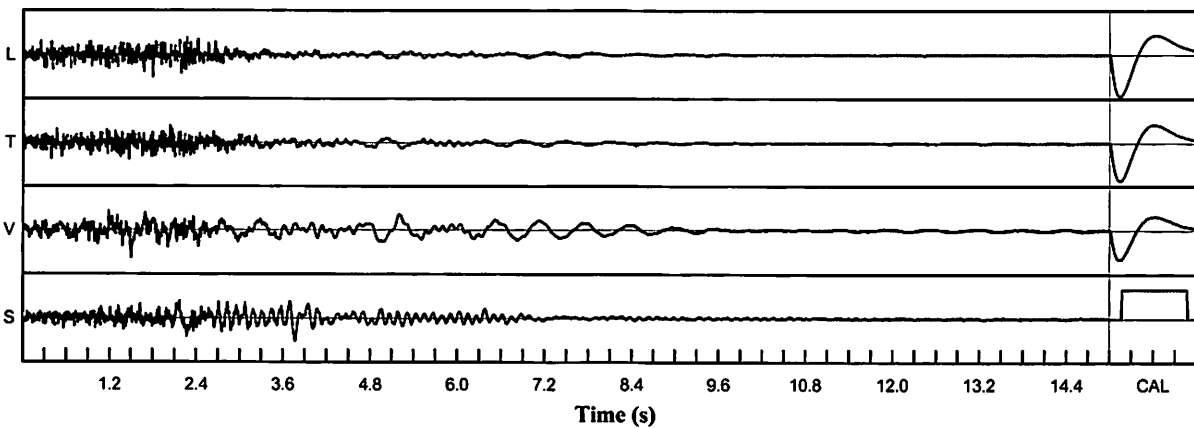
Shaketable Calibrated: 09/27/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5218 Event: 2



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: 5150 v3.67
Date: 09/05/2019 13:17:47
Event No: 7
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

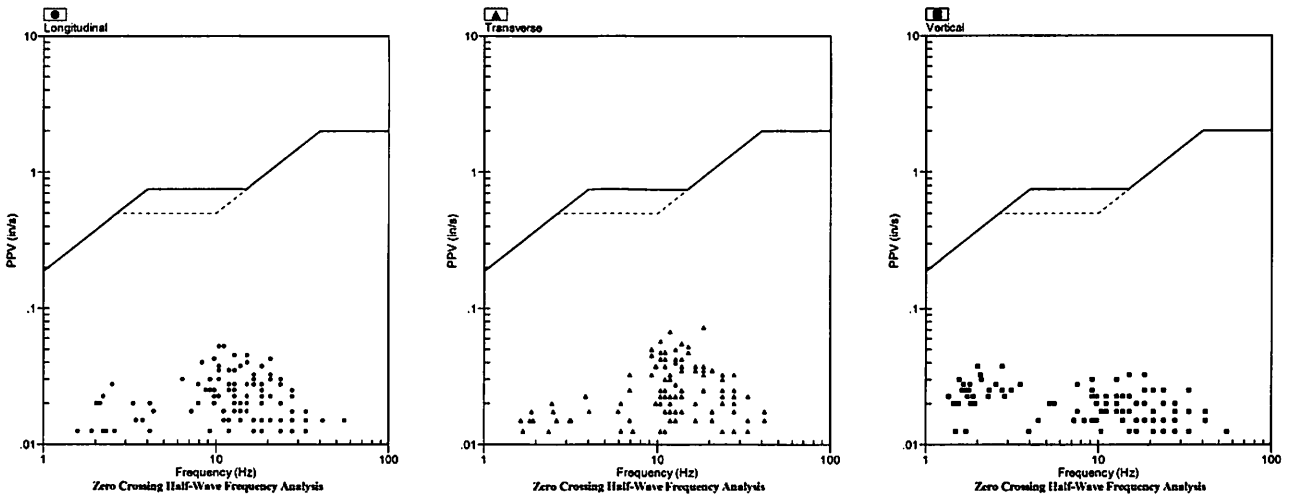
Summary Data

	L	T	V
PPV (in/s)	0.053	0.073	0.038
FREQ (Hz)	10.4	18.5	2.8
PD (.001")	1.47	1.55	3.00
PPA (g)	0.020	0.020	0.013
Peak Vector Sum:	0.083 in/s		
Peak Air Pressure:	106 db		
	0.00066 PSI @ 8.3 Hz		

Additional Info:

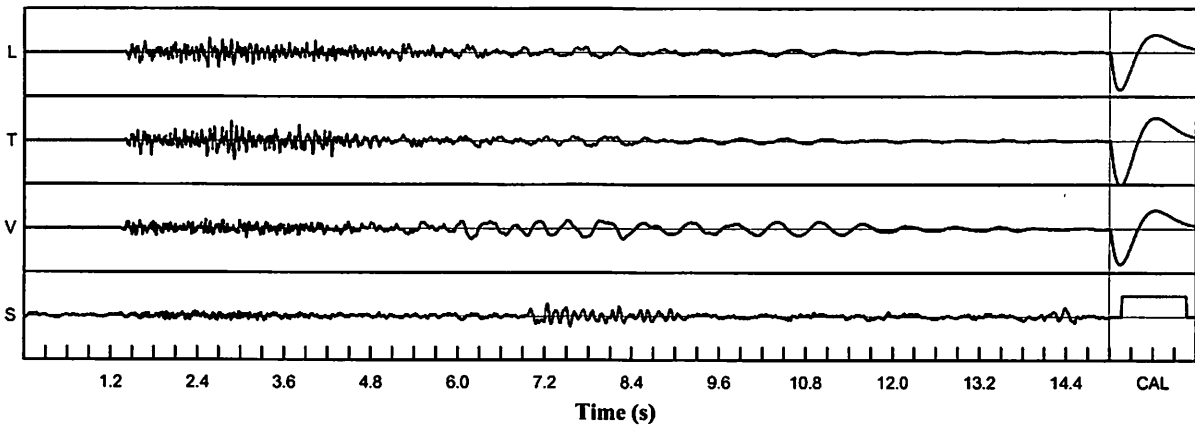
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 7



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: 5150 v3.67
Date: 09/09/2019 11:35:10
Event No: 9
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

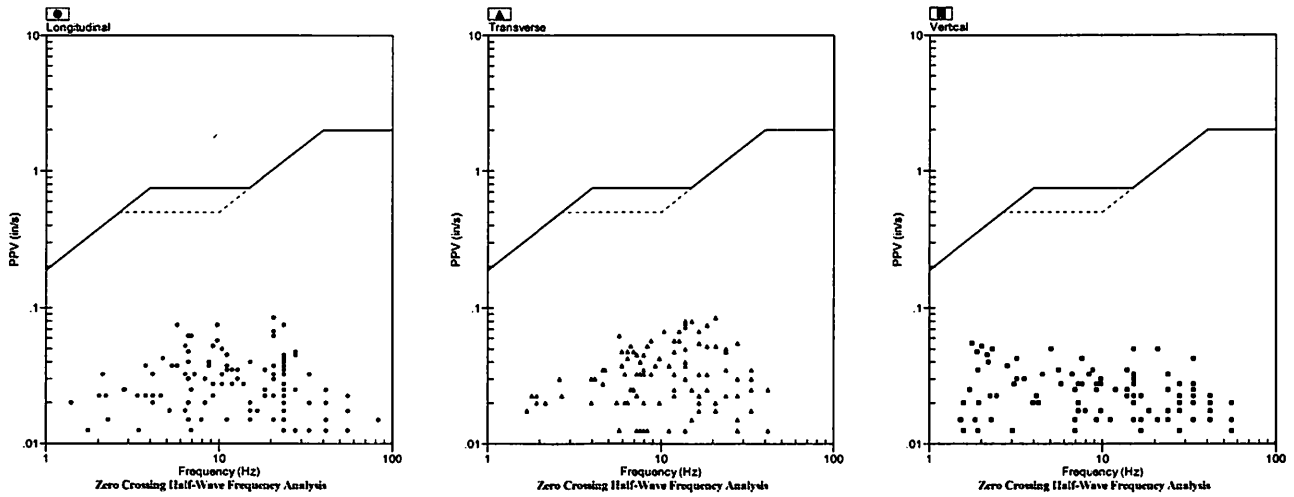
Summary Data

	L	T	V
PPV (in/s)	0.085	0.085	0.055
FREQ (Hz)	20.8	20.8	1.8
PD (.001")	1.95	1.89	4.50
PPA (g)	0.033	0.033	0.020
Peak Vector Sum:	0.113 in/s		
Peak Air Pressure:	102 db		
	0.00039 PSI @ 3.4 Hz		

Additional Info:

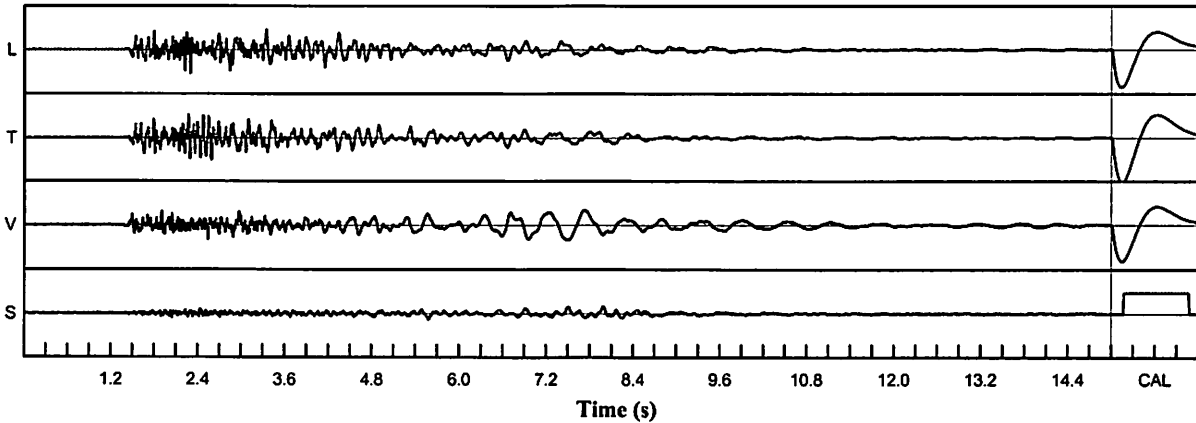
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 9



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: 5150 v3.67
Date: 09/13/2019 14:20:00
Event No: 10
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A
Comment: In Ground
Seismic Trigger: 0.020 in/s

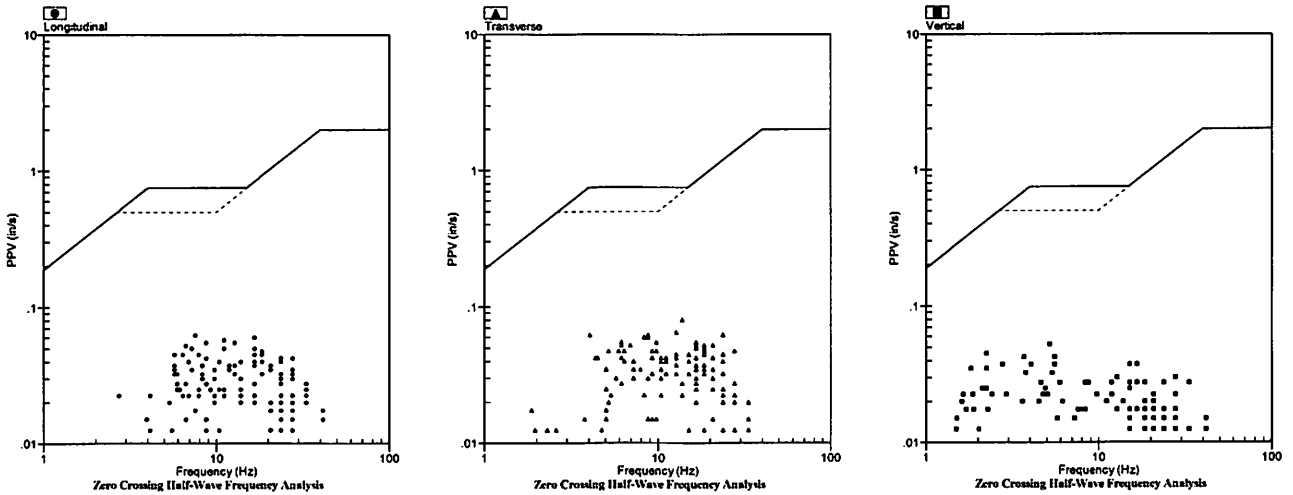
Summary Data

	L	T	V
PPV (in/s)	0.063	0.080	0.053
FREQ (Hz)	7.6	13.9	5.2
PD (.001")	1.59	1.73	2.78
PPA (g)	0.020	0.026	0.013
Peak Vector Sum:	0.088 in/s		
Peak Air Pressure:	102 db		
	0.00039 PSI @ 5.7 Hz		

Additional Info:

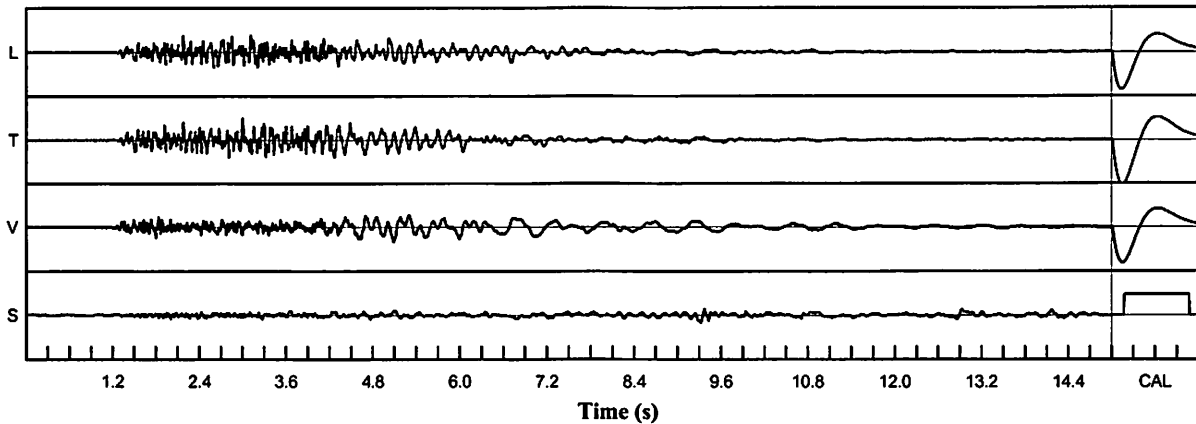
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 10



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: 5150 v3.67
Date: 10/01/2019 13:45:28
Event No: 1
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

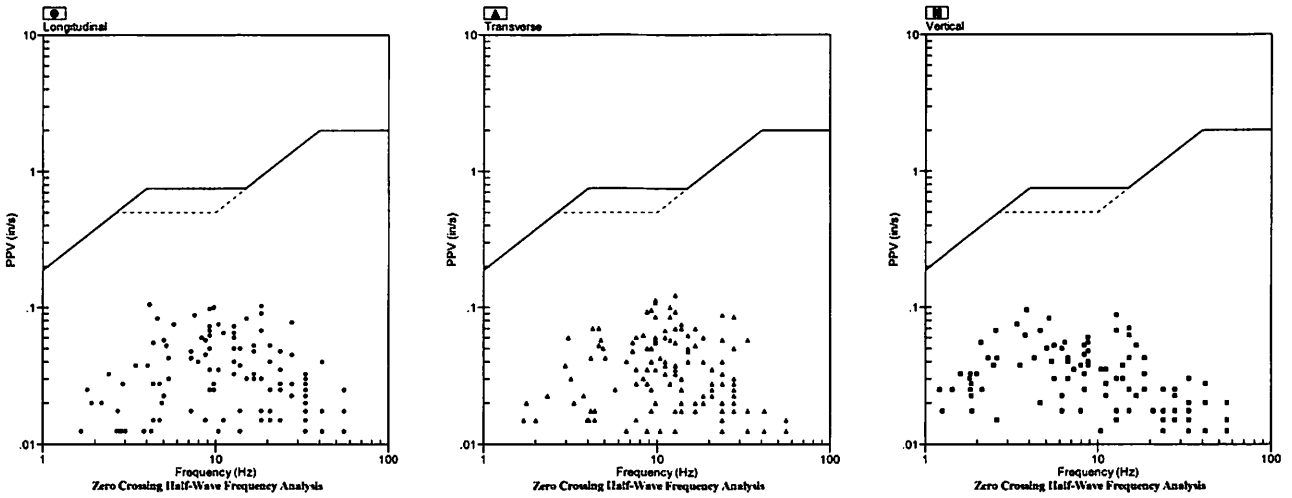
Summary Data

	L	T	V
PPV (in/s)	0.105	0.123	0.095
FREQ (Hz)	4.2	12.8	3.9
PD (.001")	2.31	2.85	3.46
PPA (g)	0.033	0.033	0.033
Peak Vector Sum:	0.165 in/s		
Peak Air Pressure:	101 db		
	0.00036 PSI @ 4.1 Hz		

Additional Info:

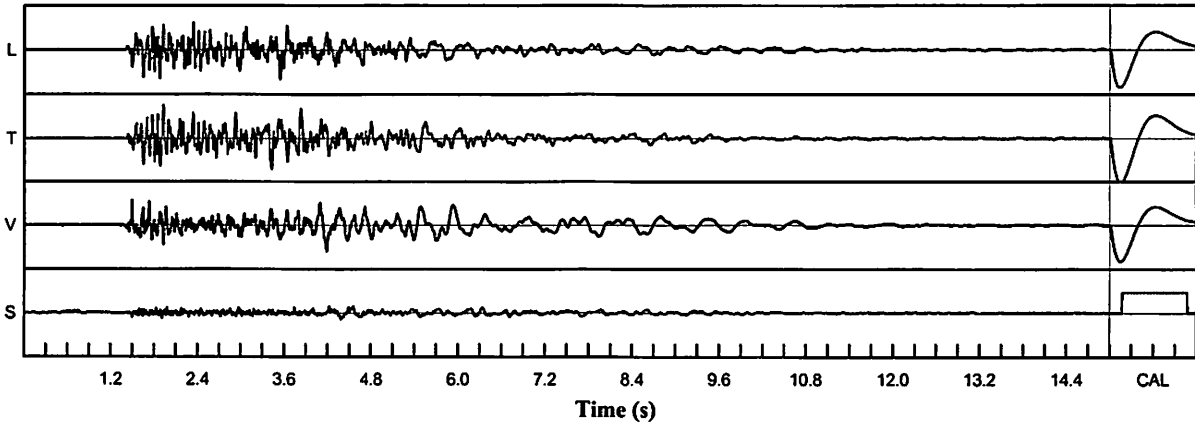
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 1



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

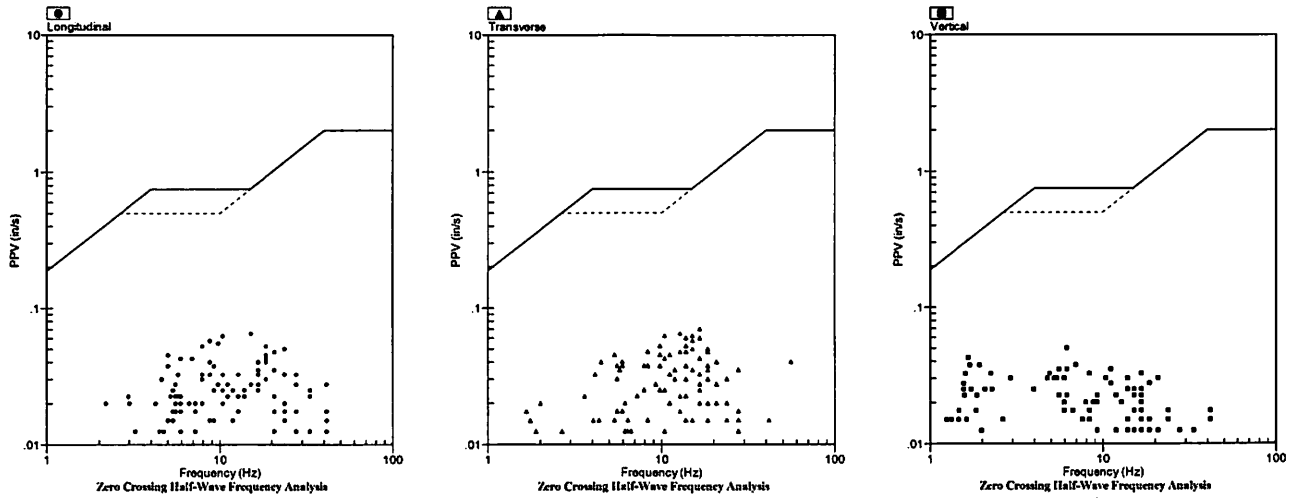
Serial No: 5150 v3.67
Date: 10/02/2019 13:30:15
Event No: 2
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

	L	T	V
PPV (in/s)	0.065	0.070	0.050
FREQ (Hz)	15.2	16.7	6.2
PD (.001")	1.61	1.39	3.33
PPA (g)	0.020	0.020	0.013
Peak Vector Sum:	0.085 in/s		
Peak Air Pressure:	97 db		
	0.00025 PSI @ 15.2 Hz		

Additional Info:

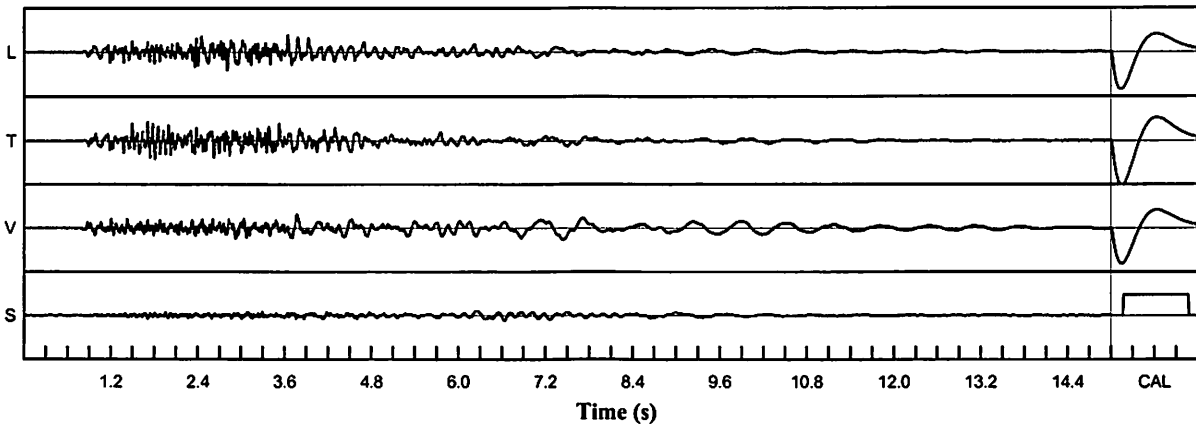
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 2



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: 5150 v3.67
Date: 10/07/2019 13:15:38
Event No: 3
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

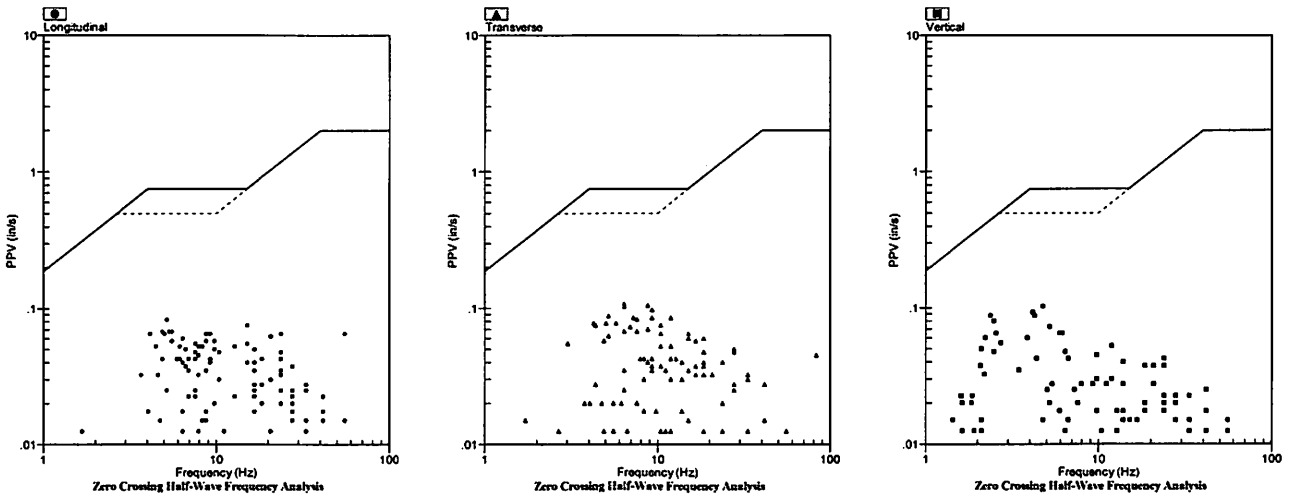
Summary Data

	L	T	V
PPV (in/s)	0.083	0.108	0.103
FREQ (Hz)	5.2	6.4	4.8
PD (.001")	2.55	2.91	4.18
PPA (g)	0.033	0.039	0.026
Peak Vector Sum:	0.118 in/s		
Peak Air Pressure:	110 db		
	0.00091 PSI @ 9.8 Hz		

Additional Info:

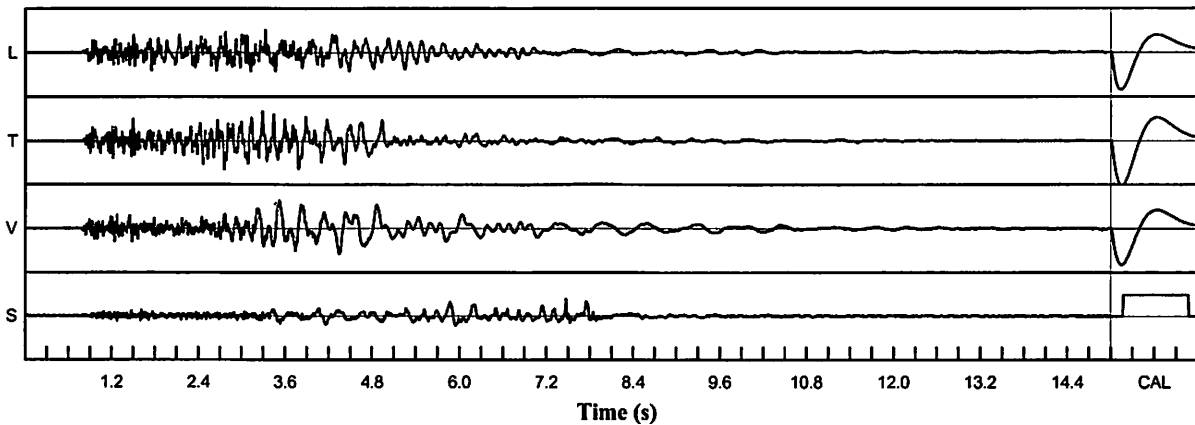
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 3



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: 5150 v3.67
Date: 10/11/2019 09:08:59
Event No: 4
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

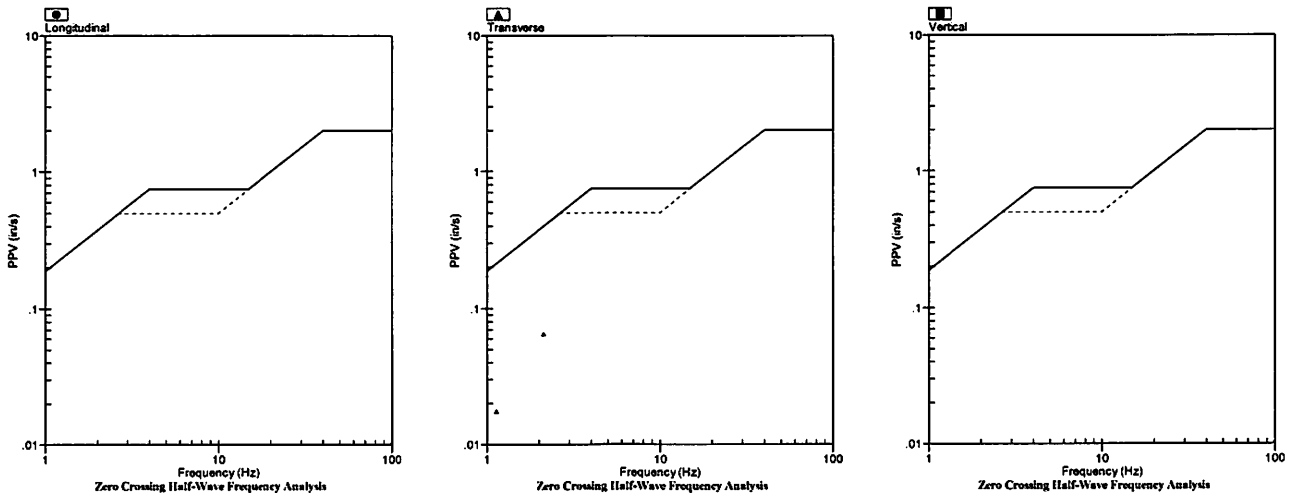
Summary Data

	L	T	V
PPV (in/s)	0.075	0.065	0.035
FREQ (Hz)	166.7	1.5	83.3
PD (.001")	0.43	5.06	0.48
PPA (g)	0.124	0.091	0.046
Peak Vector Sum:	0.095 in/s		
Peak Air Pressure:	84 db		
	0.00011 PSI @ 11.9 Hz		

Additional Info:

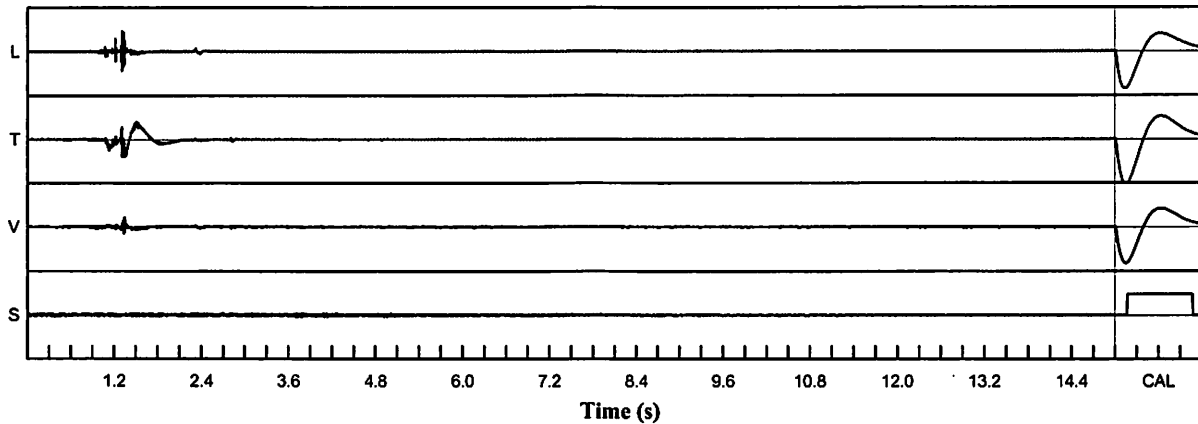
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 4



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: 5150 v3.67
Date: 10/18/2019 14:31:30
Event No: 5
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

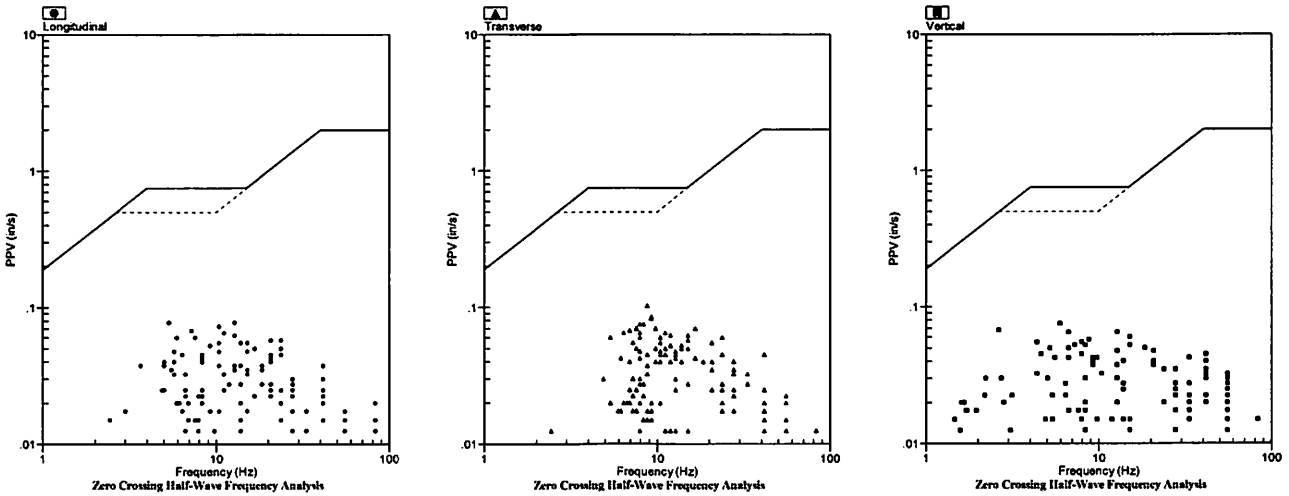
Summary Data

	L	T	V
PPV (in/s)	0.078	0.103	0.075
FREQ (Hz)	12.8	8.8	6.0
PD (.001")	2.13	2.10	3.27
PPA (g)	0.033	0.026	0.033
Peak Vector Sum:	0.105 in/s		
Peak Air Pressure:	108 db		
	0.00078 PSI @ 6.0 Hz		

Additional Info:

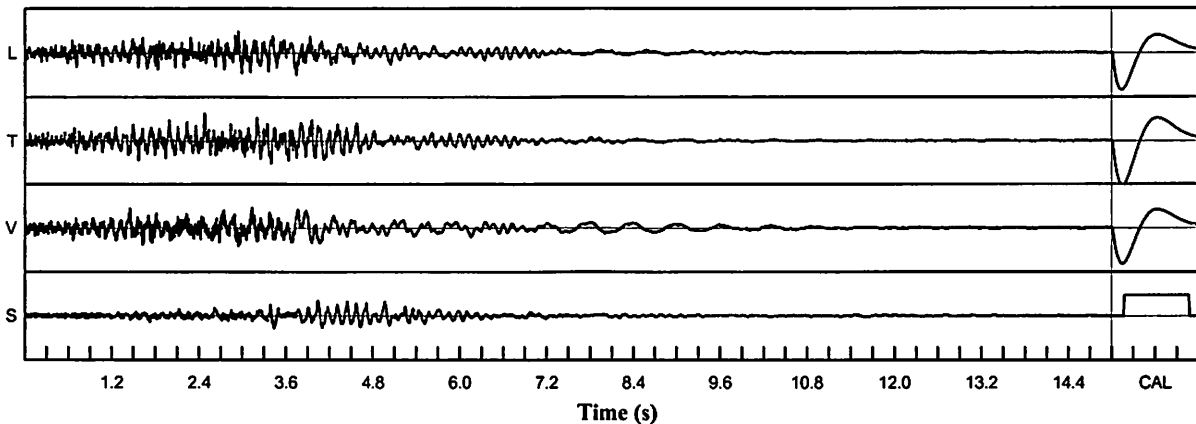
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 5



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: 5150 v3.67
Date: 10/22/2019 14:31:19
Event No: 1
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

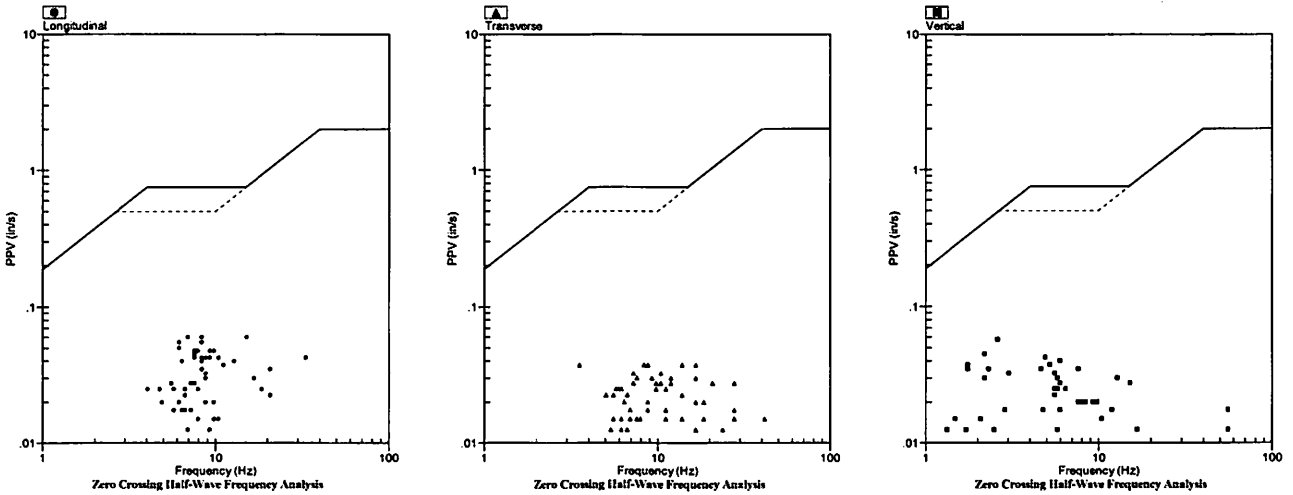
Summary Data

	L	T	V
PPV (in/s)	0.065	0.038	0.058
FREQ (Hz)	7.6	13.9	2.6
PD (.001")	1.74	1.30	2.76
PPA (g)	0.020	0.013	0.013
Peak Vector Sum:	0.078 in/s		
Peak Air Pressure:	106 db		
	0.00066 PSI @ 5.6 Hz		

Additional Info:

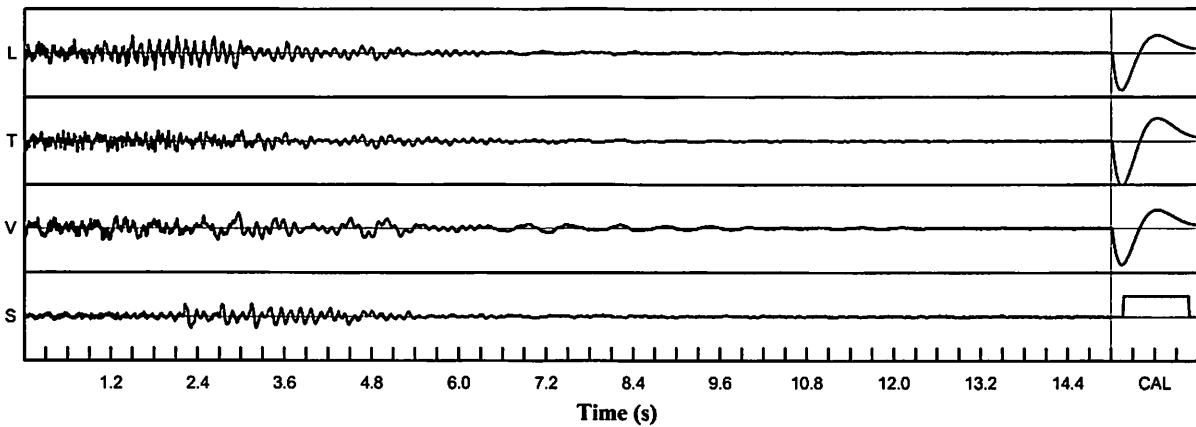
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 1



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: 5150 v3.67
Date: 10/24/2019 13:31:51
Event No: 2
Record Time: 15.0 s
Client: City of Miramar
Operation: White Rock Quarries
Location: 5276 SW 152 Ave
Distance:
Operator: Roy A.
Comment: In Ground
Seismic Trigger: 0.050 in/s

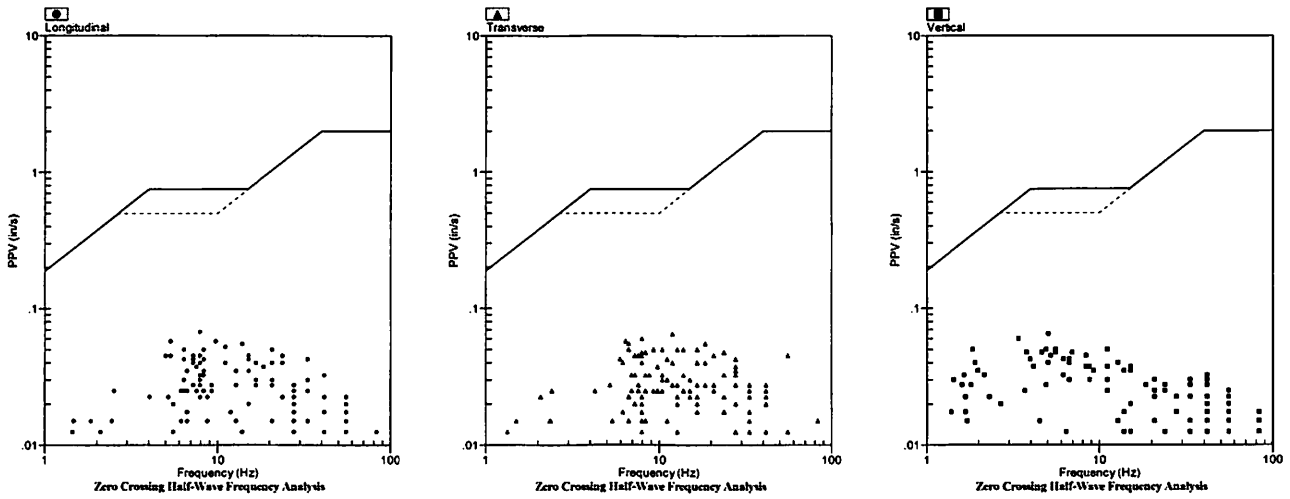
Summary Data

	L	T	V
PPV (in/s)	0.068	0.065	0.065
FREQ (Hz)	7.9	11.9	5.1
PD (.001")	1.84	1.82	3.42
PPA (g)	0.026	0.026	0.020
Peak Vector Sum:	0.083 in/s		
Peak Air Pressure:	107 db		
	0.00070 PSI @ 2.9 Hz		

Additional Info:

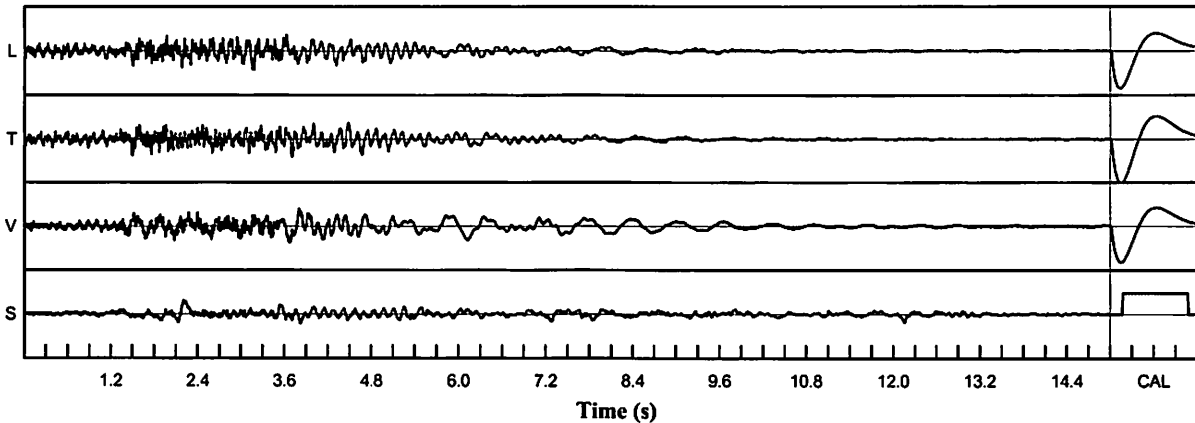
Shaketable Calibrated: 03/02/2019
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

USBM Safe Blasting Levels



Velocity Waveform

SN: 5150 Event: 2



Velocity Waveform Graph Scale

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