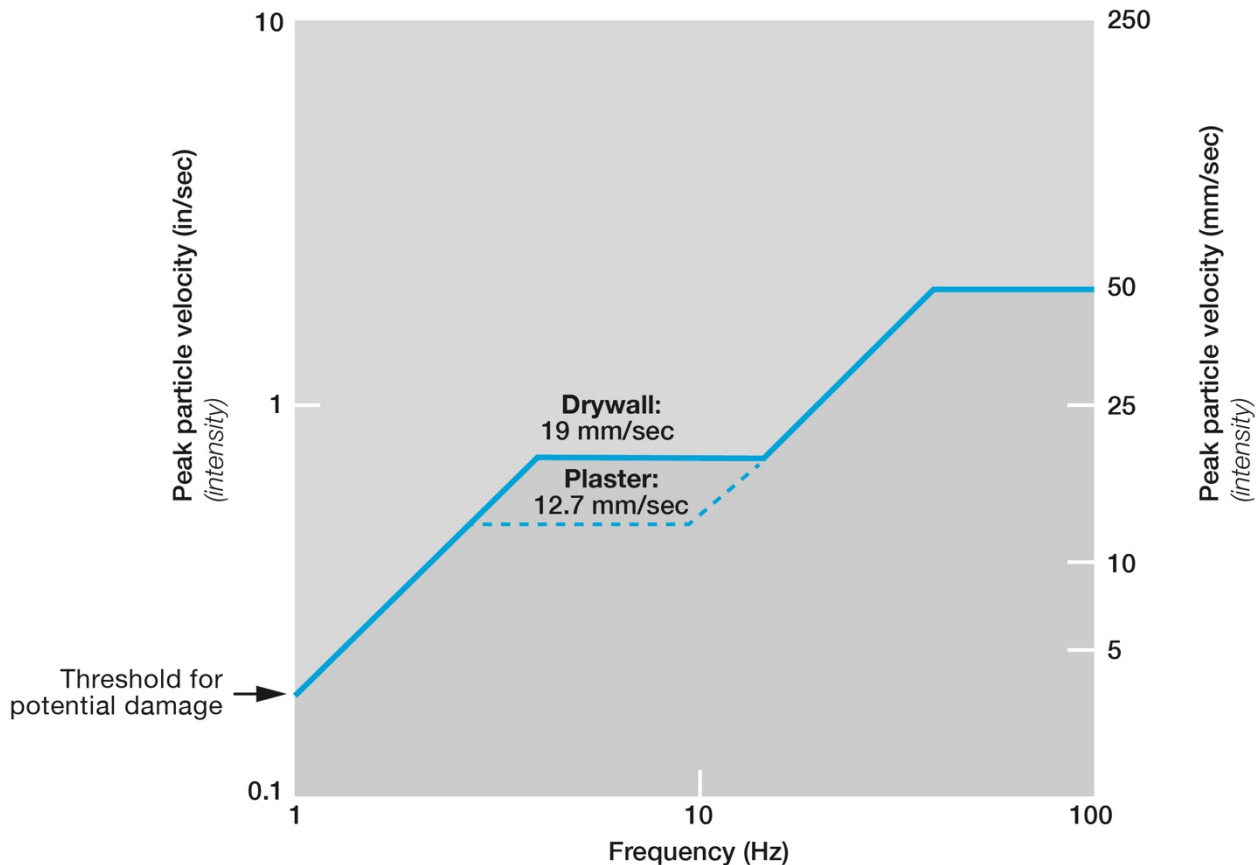


Understanding the Z-Curve

The Z-Curve line establishes a limit above which damage becomes possible, but it is crucial to note that damage does not automatically occur once this limit is breached. Damage would not actually occur in the average residence until ground vibrations reached significantly higher intensities than those outlined by the USBM Z-Curve. If the Z-Curve criteria is exceeded, the probability of damage is merely introduced and will incrementally increase with higher and higher vibration amplitudes.

USBM Z-CURVE (USBM RI 8507)
Threshold damage vibration criteria



Vibrations are occurring around us every day and are highly subjective. Each individual's perception and tolerance will influence the degree to which vibrations are a nuisance or objectionable. Humans and animals are far more sensitive to vibrations than a two-storey timber framed house, bridge or other structures.

Permanent Monitoring Units

West Calgary Ring Road			92 Cougarstone Manor SW, Calgary, AB		9555 2 Avenue SW, Calgary, AB		97 Cougar Ridge Close SW, Calgary, AB		130 Cougarstone Close SW, Calgary, AB		77 Cougar Ridge Close SW, Calgary, AB		128 Cougarstone Manor SW, Calgary, AB		152 Cougarstone Common SW, Calgary, AB		135 Cougarstone Common SW, Calgary, AB	
Blast Date:	Blast no.	Blast time:	PPV	AOP	PPV	AOP	PPV	AOP	PPV	AOP	PPV	AOP	PPV	AOP	PPV	AOP	PPV	AOP
10-Aug-20	WCRR-144	18:02	4.83mm/s	124.7dB(L)	1.40mm/s	116.6dB(L)	14.60mm/s	125.5dB(L)	0.51mm/s	129.4dB(L)	8.38mm/s	126.8dB(L)	5.21mm/s	123.4dB(L)			2.16mm/s	118.1dB(L)
11-Aug-20	WCRR-145	16:03	3.68mm/s	119.0dB(L)	0.76mm/s	109.5dB(L)	11.40mm/s	122.4dB(L)	0.38mm/s	112.0dB(L)	8.76mm/s	121.1dB(L)	4.95mm/s	113.3dB(L)	1.14mm/s	109.5dB(L)	1.02mm/s	104.9dB(L)
12-Aug-20	WCRR-146	16:02	2.29mm/s	125.0dB(L)	1.27mm/s	115.7dB(L)	6.73mm/s	130.2dB(L)	0.51mm/s	112.6dB(L)	5.33mm/s	127.2dB(L)	2.16mm/s	120.0dB(L)			0.89mm/s	113.1dB(L)
14-Aug-20	WCRR-147	15:58	2.29mm/s	126.0dB(L)	0.13mm/s	119.3dB(L)	8.38mm/s	131.6dB(L)	0.38mm/s	131.0dB(L)	6.10mm/s	128.6dB(L)	6.48mm/s	129.8dB(L)	1.02mm/s	120.5dB(L)	0.64mm/s	121.6dB(L)
15-Aug-20	WCRR-148	16:55	1.40mm/s	117.9dB(L)	1.02mm/s	114.2dB(L)	9.52mm/s	121.7dB(L)	0.38mm/s	107.5dB(L)	0.38mm/s	98.8dB(L)	2.03mm/s	113.1dB(L)	3.30mm/s	107.0dB(L)	0.64mm/s	106.5dB(L)

*Click on a highlighted cell to view the seismograph report for the corresponding date and location.

Date/Time Vert At 17:46:13 August 10, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
 Battery Level 6.6 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name M251IL0P.D10W

Notes
 Location: 97 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

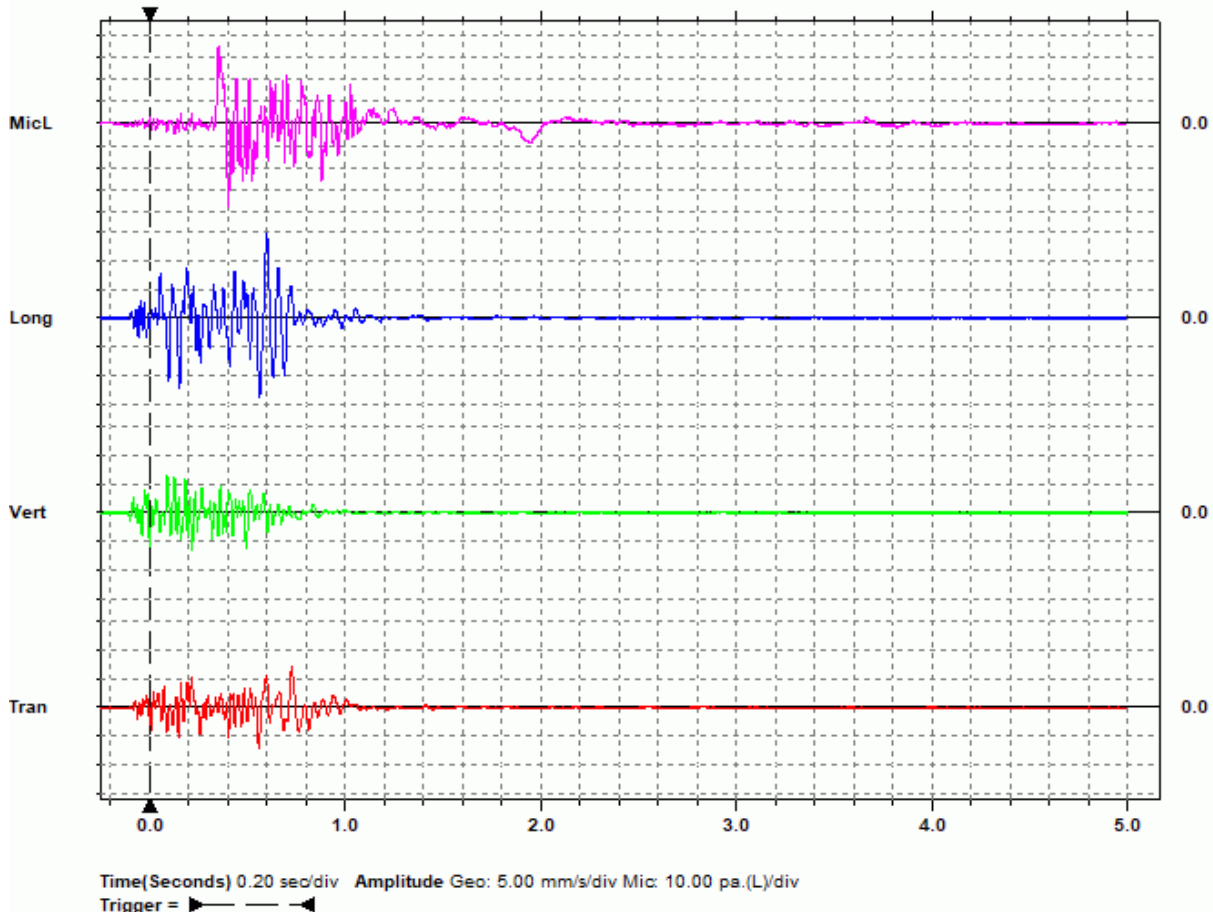
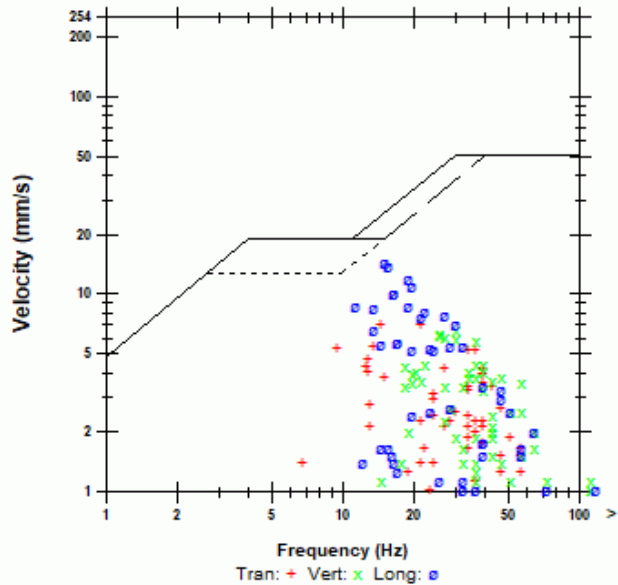
Extended Notes
 Combo Mode August 10, 2020 05:16:49
 Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 125.5 dB(L) at 0.404 sec.
 ZC Freq 22 Hz.
 Channel Test Disabled

	Tran	Vert	Long	
PPV	6.98	6.60	14.6	mm/s
ZC Freq	21	30	15	Hz
Time (Rel. to Trig)	0.560	0.219	0.601	sec
Peak Acceleration	0.119	0.146	0.172	g
Peak Displacement	0.0688	0.0376	0.146	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 15.8 mm/s At 0.601 sec.

USBM RI8507 And OSMRE



Date/Time Vert At 17:46:13 August 10, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
Battery Level 6.6 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name M251IL0P.D10W

Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 10, 2020 05:16:49
Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Vert At 15:47:54 August 11, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
 Battery Level 6.7 Volts
 Unit Calibration October 23, 2019 by Instantel
 File Name M251IL2E.JU0W

Notes
 Location: 97 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

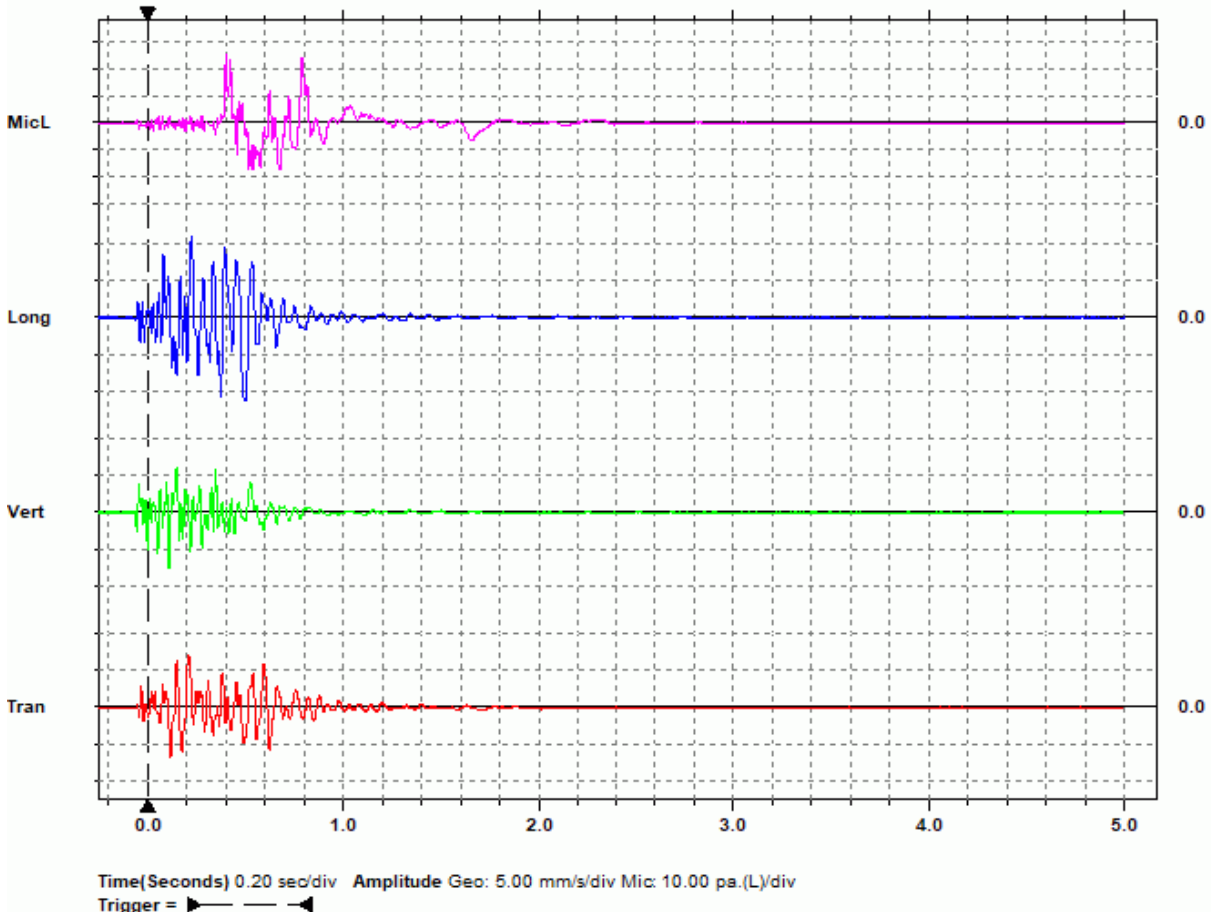
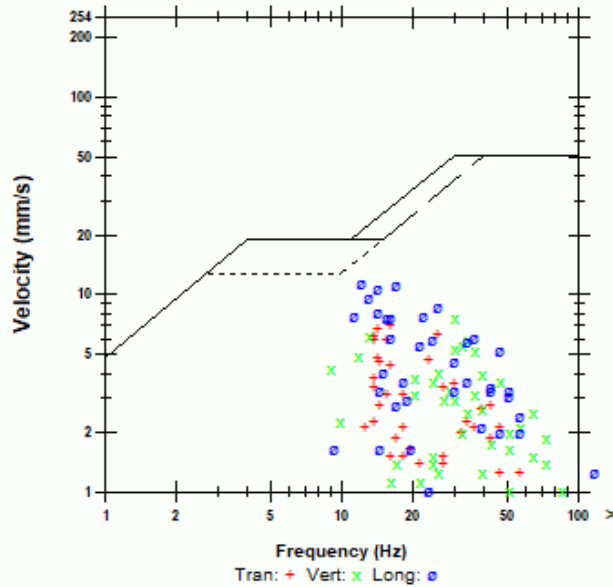
Combo Mode August 11, 2020 05:16:45
 Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 122.4 dB(L) at 0.400 sec.
 ZC Freq 6.3 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	6.98	7.62	11.4	mm/s
ZC Freq	16	30	12	Hz
Time (Rel. to Trig)	0.206	0.108	0.499	sec
Peak Acceleration	0.106	0.172	0.199	g
Peak Displacement	0.0747	0.0609	0.165	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 12.5 mm/s At 0.222 sec.

USBM R18507 And OSMRE



Date/Time Vert At 15:47:54 August 11, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
Battery Level 6.7 Volts
Unit Calibration October 23, 2019 by Instantel
File Name M251IL2E.JU0W

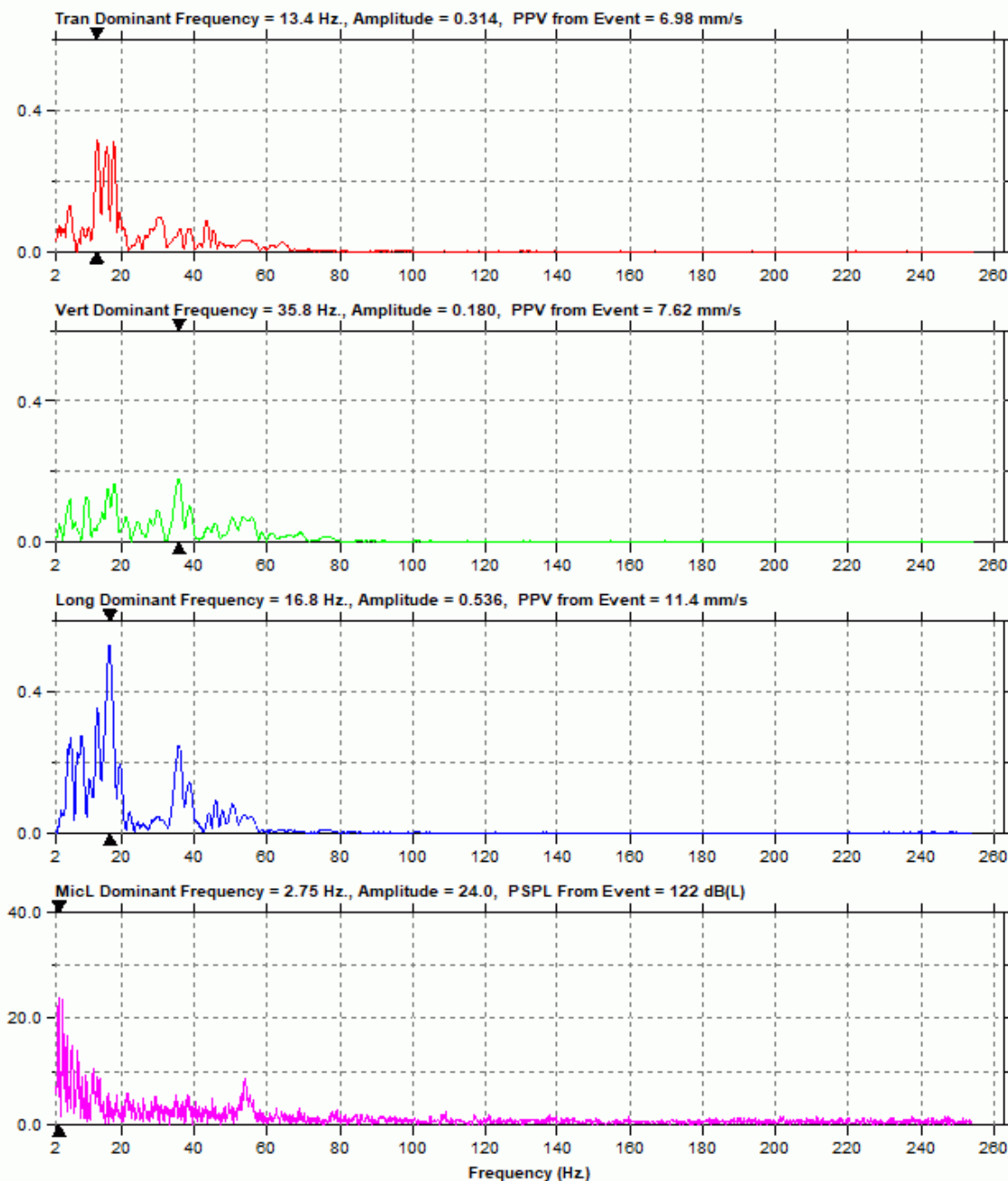
Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 11, 2020 05:16:45
Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Long At 15:46:41 August 12, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
 Battery Level 6.7 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name M251IL49.5T0W

Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

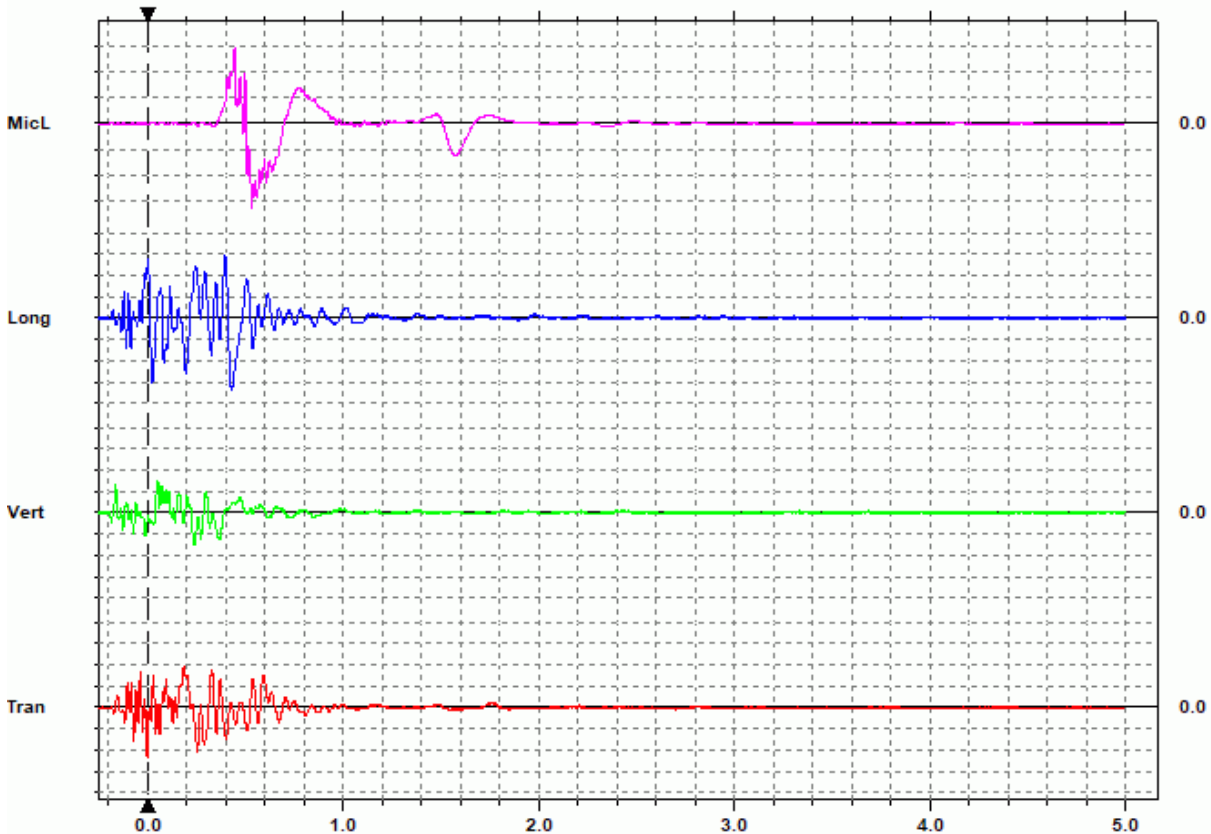
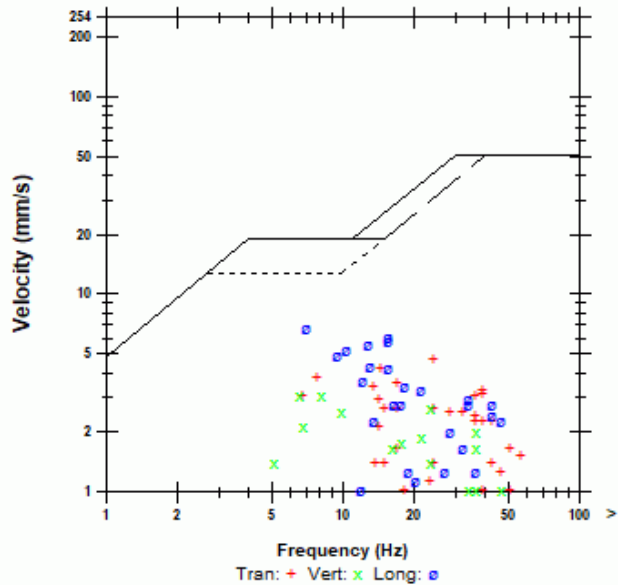
Combo Mode August 12, 2020 05:16:47
 Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 130.2 dB(L) at 0.534 sec.
 ZC Freq 2.6 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	4.70	3.05	6.73	mm/s
ZC Freq	24	6.5	7.0	Hz
Time (Rel. to Trig)	-0.001	0.052	0.430	sec
Peak Acceleration	0.0795	0.0530	0.0928	g
Peak Displacement	0.0737	0.0618	0.132	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 6.96 mm/s At 0.000 sec.

USBM R18507 And OSMRE



Time(Seconds) 0.20 sec/div Amplitude Geo: 2.00 mm/s/div Mic: 20.0 ps.(L)/div
 Trigger =

Date/Time Long At 15:46:41 August 12, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
Battery Level 6.7 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name M251IL49.5T0W

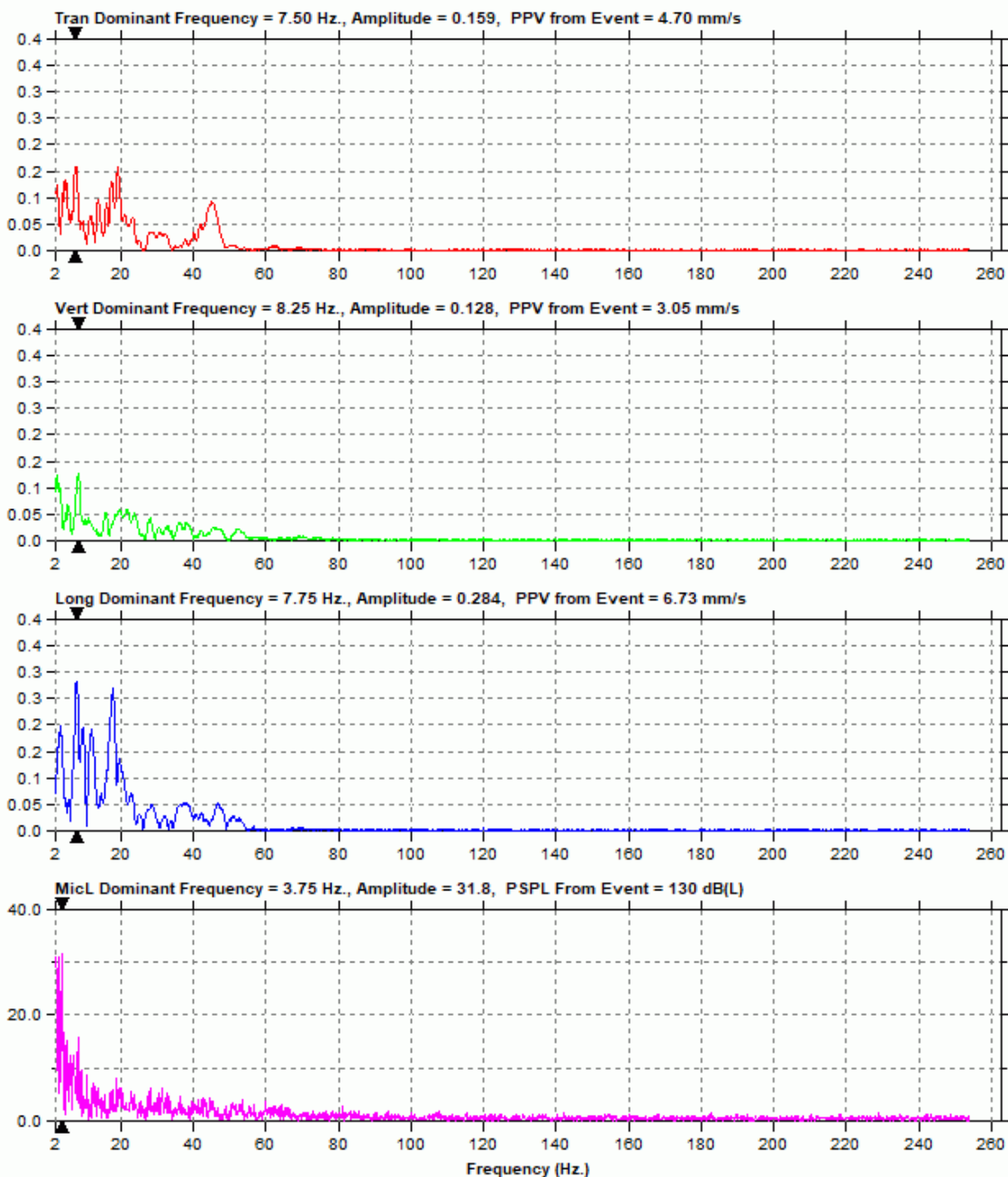
Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 12, 2020 05:16:47
Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Tran At 15:42:17 August 14, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
 Battery Level 6.7 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name M251IL7Y.AH0W

Notes
 Location: 97 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

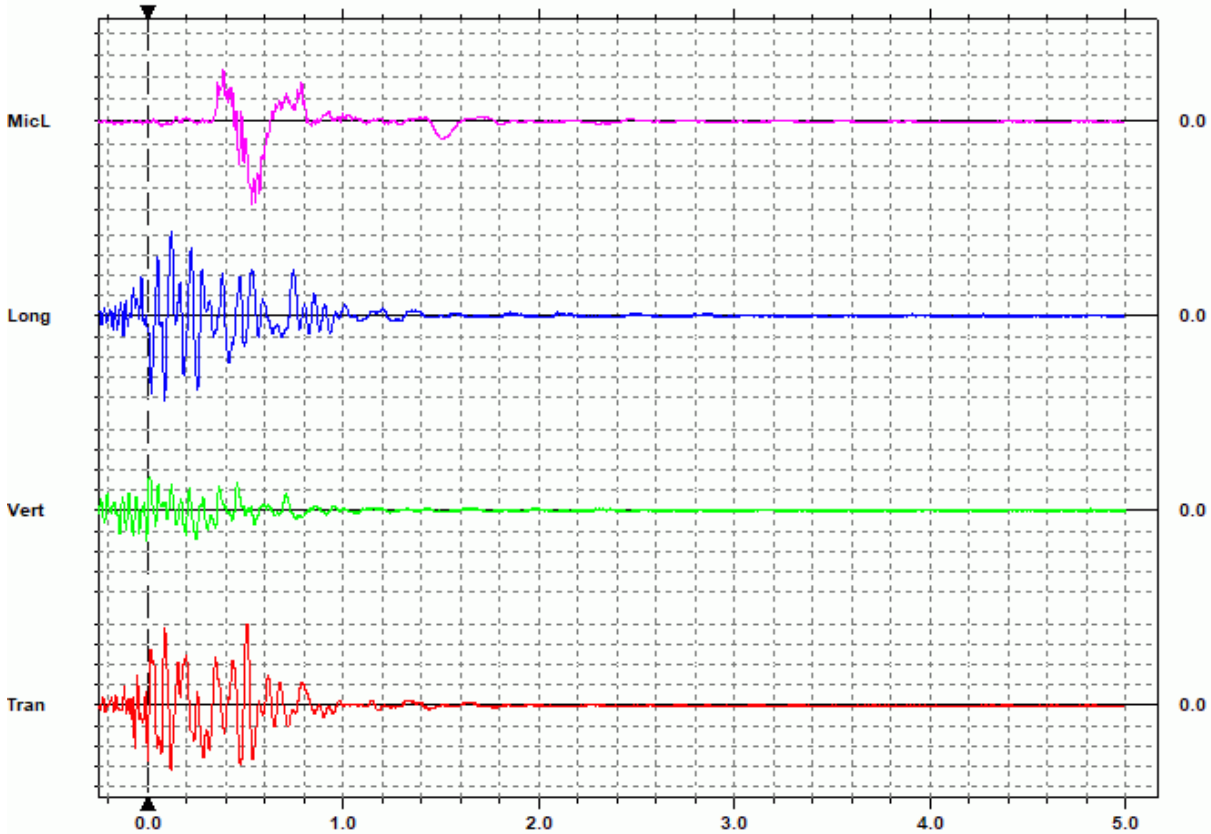
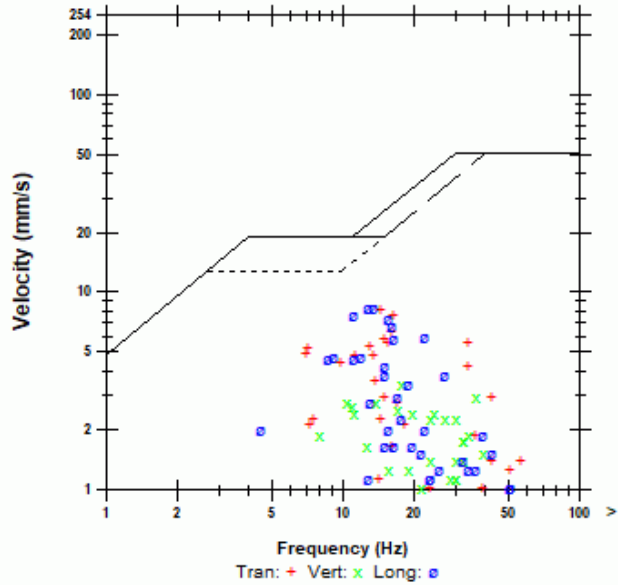
Combo Mode August 14, 2020 05:16:47
 Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 131.6 dB(L) at 0.534 sec.
 ZC Freq 3.4 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	8.13	3.43	8.38	mm/s
ZC Freq	15	18	13	Hz
Time (Rel. to Trig)	0.510	0.009	0.088	sec
Peak Acceleration	0.133	0.0795	0.0928	g
Peak Displacement	0.112	0.0363	0.0884	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 11.4 mm/s At 0.089 sec.

USBM RI8507 And OSMRE



Time(Seconds) 0.20 sec/div Amplitude Geo: 2.00 mm/s/div Mic: 20.0 pa.(L)/div
 Trigger =

Date/Time Tran At 15:42:17 August 14, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
Battery Level 6.7 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name M251L7Y.AH0W

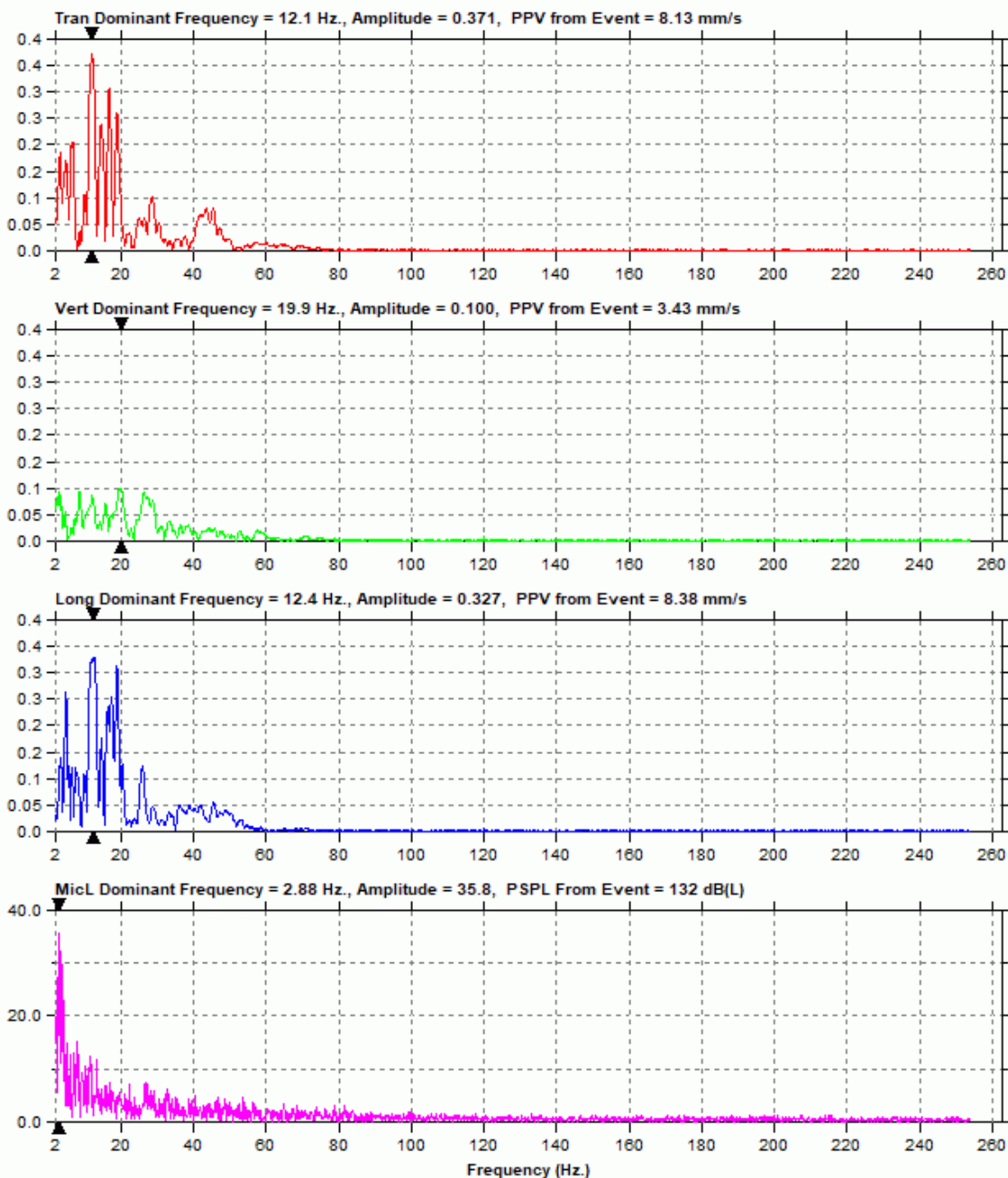
Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 14, 2020 05:16:47
Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Tran At 16:39:45 August 15, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
 Battery Level 6.6 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name M251IL9V.M90W

Notes
 Location: 97 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

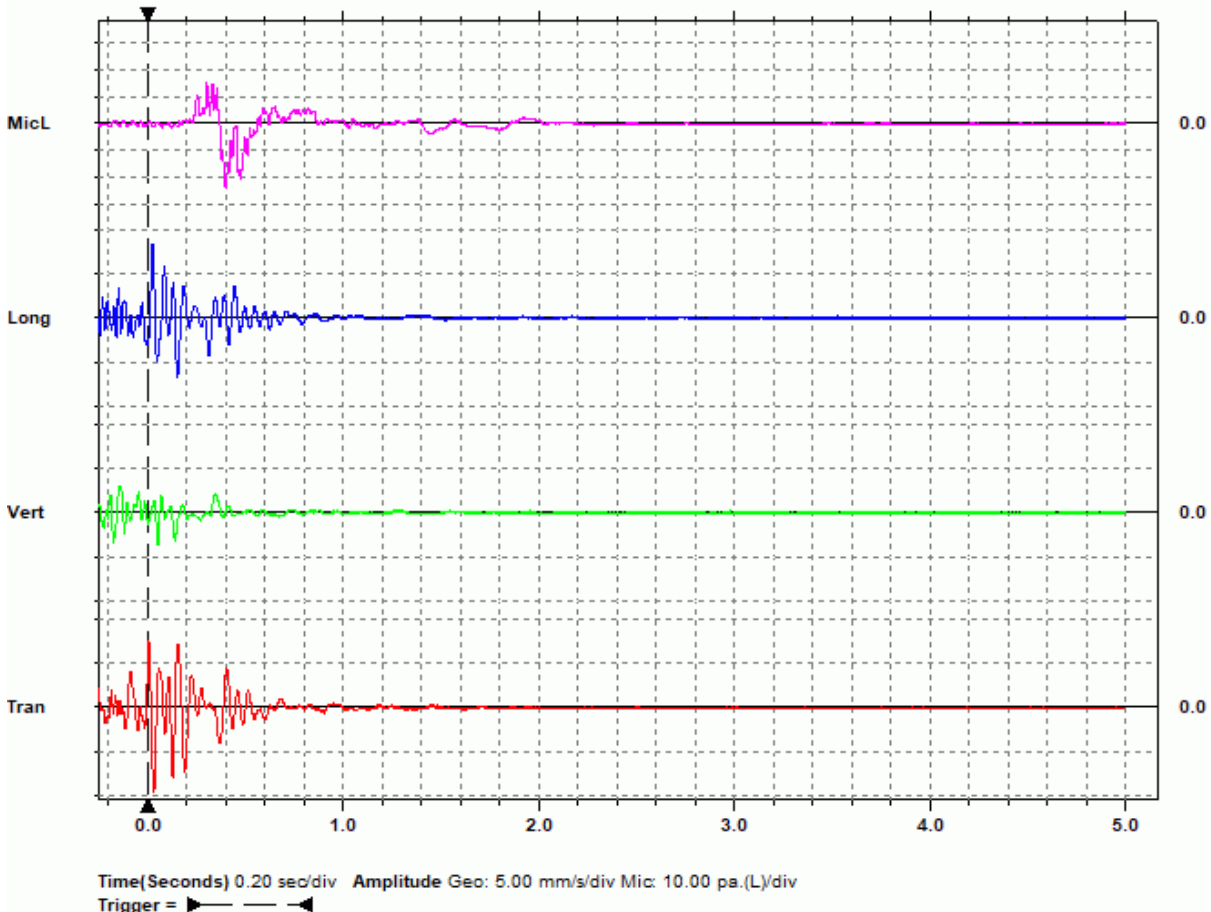
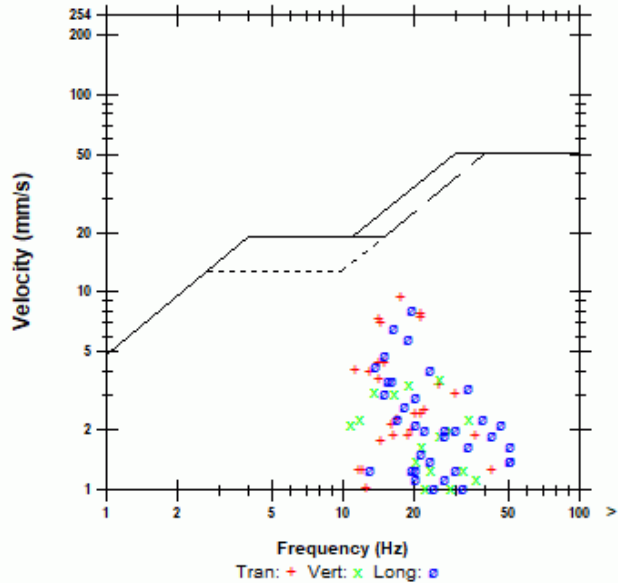
Combo Mode August 15, 2020 05:16:44
 Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 121.7 dB(L) at 0.400 sec.
 ZC Freq 2.6 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	9.52	3.68	8.25	mm/s
ZC Freq	18	26	20	Hz
Time (Rel. to Trig)	0.031	0.051	0.024	sec
Peak Acceleration	0.106	0.0663	0.106	g
Peak Displacement	0.0851	0.0327	0.0653	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 11.8 mm/s At 0.028 sec.

USBM RI8507 And OSMRE



Date/Time Tran At 16:39:45 August 15, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE11251 V 10.72-8.17 MiniMate Plus
Battery Level 6.6 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name M251IL9V.M90W

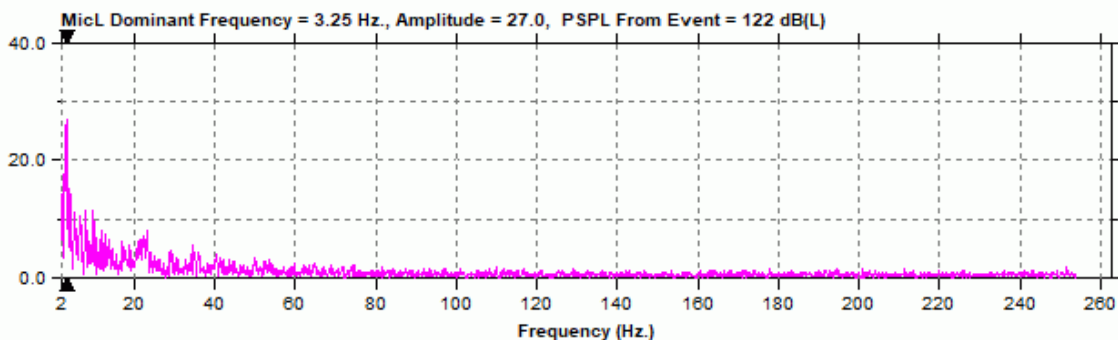
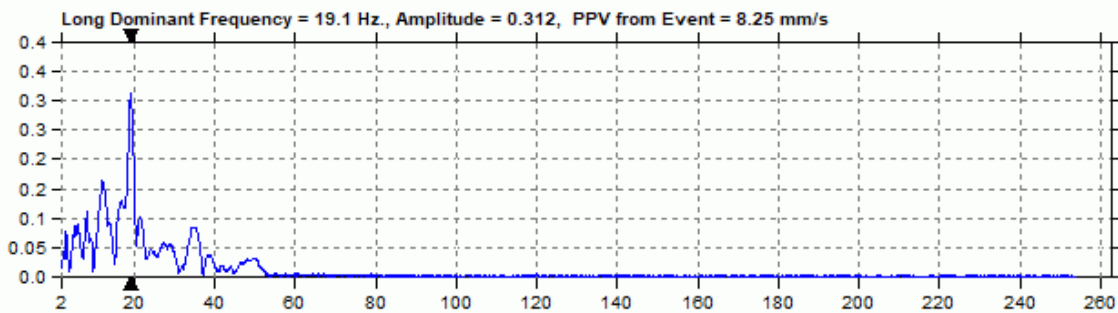
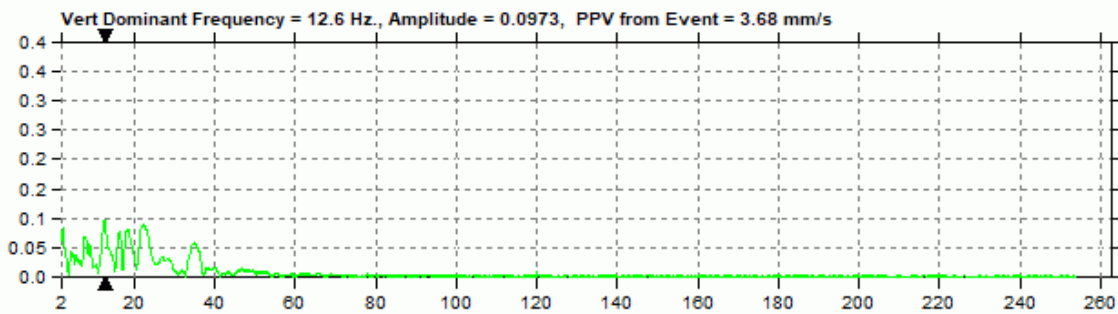
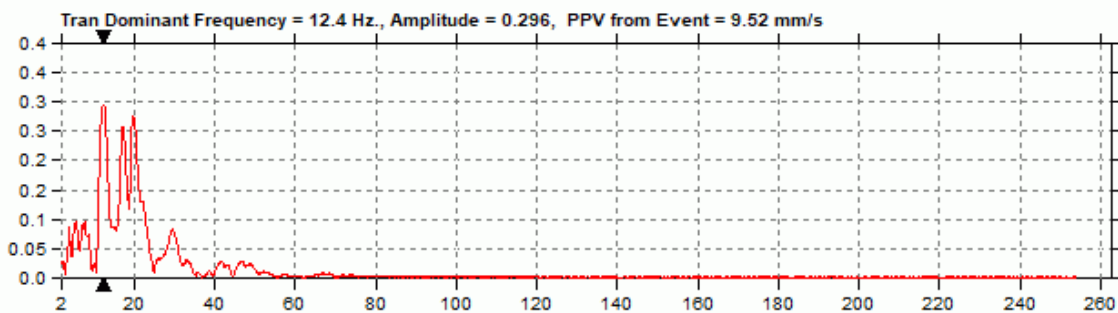
Notes

Location: 97 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 15, 2020 05:16:44
Geophone is sandbagged under the stairs of the backyard deck at 97 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Long At 17:46:35 August 10, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
 Battery Level 6.7 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name R263IL0P.DNOW

Notes
 Location: 77 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

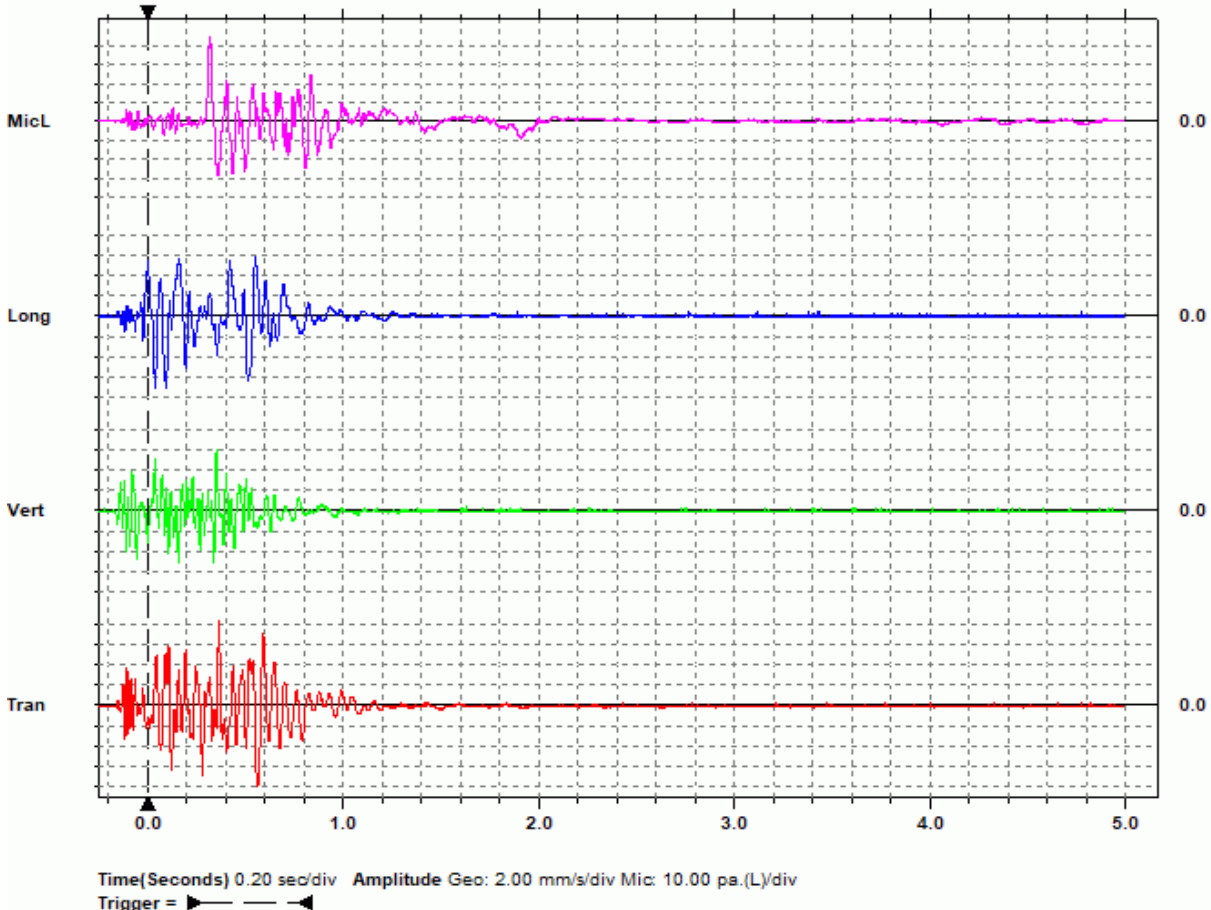
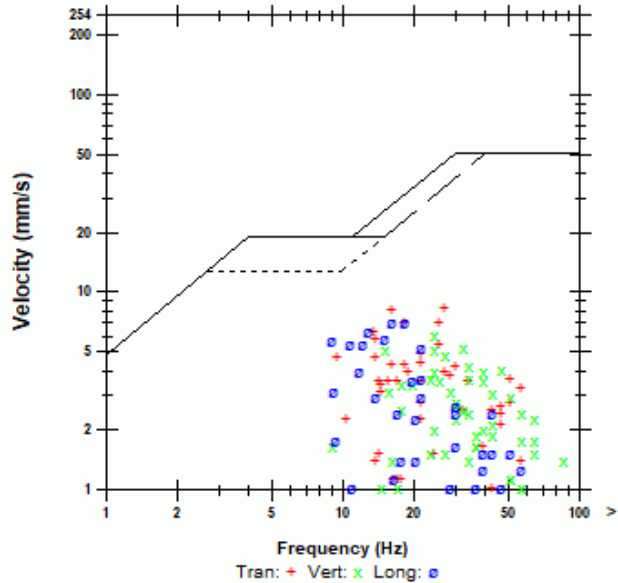
Combo Mode August 10, 2020 05:16:47
 Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 126.8 dB(L) at 0.321 sec.
 ZC Freq 9.5 Hz.
 Channel Test Disabled

	Tran	Vert	Long	
PPV	8.38	6.10	7.11	mm/s
ZC Freq	27	24	18	Hz
Time (Rel. to Trig)	0.365	0.354	0.039	sec
Peak Acceleration	0.146	0.146	0.0795	g
Peak Displacement	0.0850	0.0335	0.0946	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 9.14 mm/s At 0.039 sec.

USBM R18507 And OSMRE



Date/Time Long At 17:46:35 August 10, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
Battery Level 6.7 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name R263IL0P.DNOW

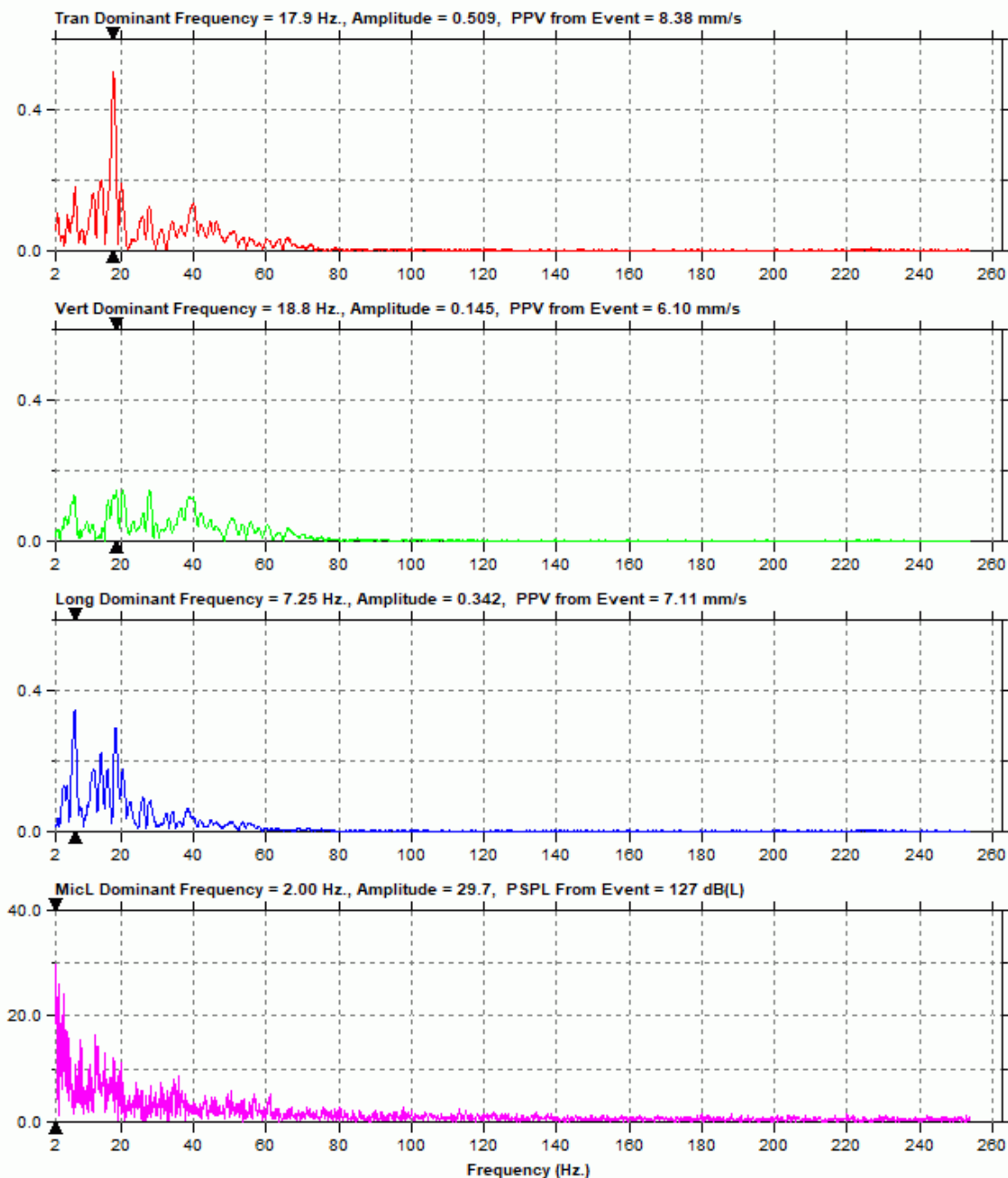
Notes

Location: 77 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 10, 2020 05:16:47
Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Tran At 15:48:16 August 11, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
 Battery Level 6.8 Volts
 Unit Calibration October 23, 2019 by Instantel
 File Name R263IL2E.KGOW

Notes

Location: 77 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

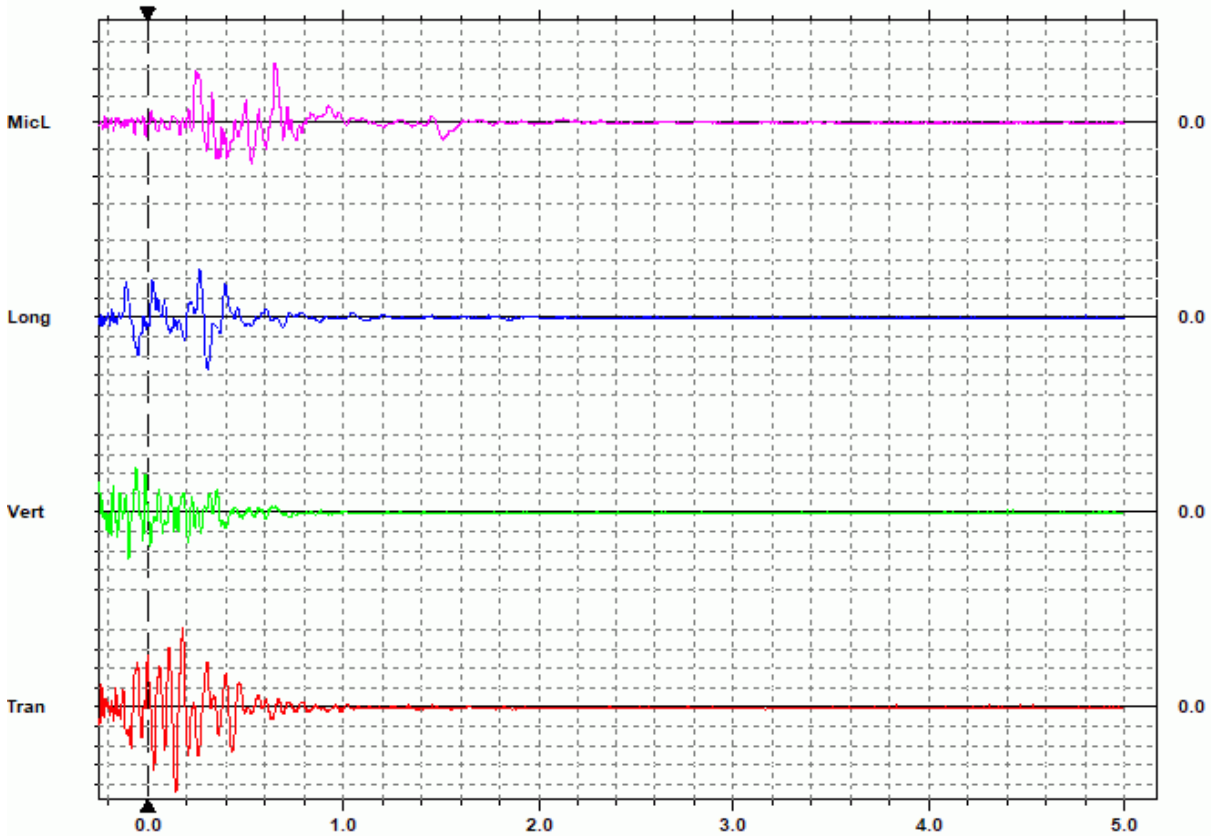
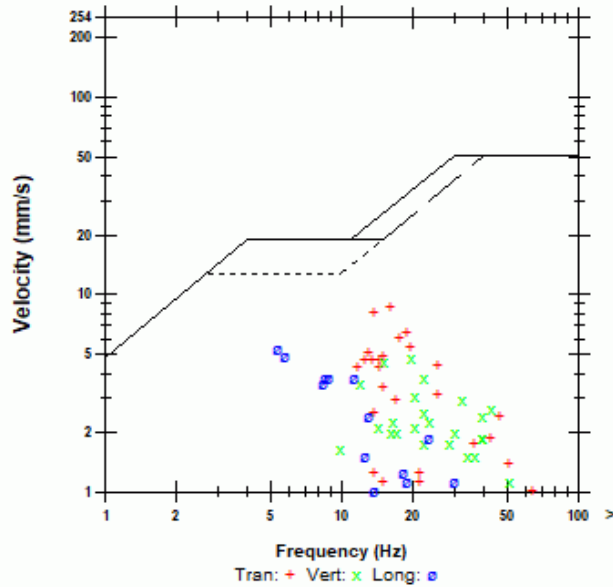
Combo Mode August 11, 2020 05:16:40
 Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 121.1 dB(L) at 0.651 sec.
 ZC Freq 8.5 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	8.76	4.83	5.33	mm/s
ZC Freq	16	20	5.4	Hz
Time (Rel. to Trig)	0.146	-0.094	0.307	sec
Peak Acceleration	0.133	0.106	0.0795	g
Peak Displacement	0.0892	0.0429	0.102	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 8.82 mm/s At 0.147 sec.

USBM R18507 And OSMRE



Time(Seconds) 0.20 sec/div Amplitude Geo: 2.00 mm/s/div Mic: 10.00 pa.(L)/div
 Trigger =

Date/Time Tran At 15:48:16 August 11, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
Battery Level 6.8 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name R263IL2E.KG0W

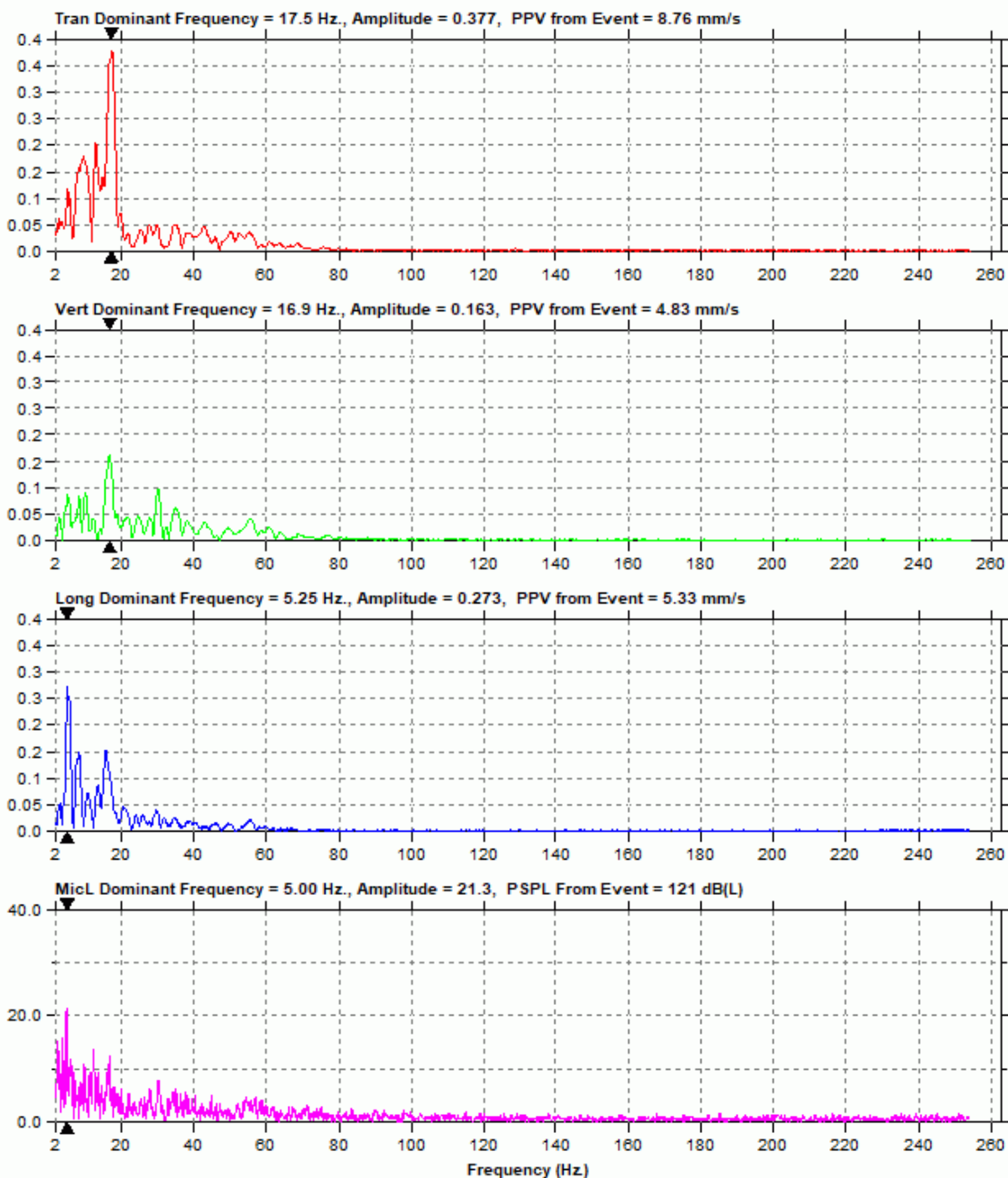
Notes

Location: 77 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 11, 2020 05:16:40
Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Tran At 15:47:03 August 12, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
 Battery Level 6.8 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name R283IL49.8F0W

Notes
 Location: 77 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

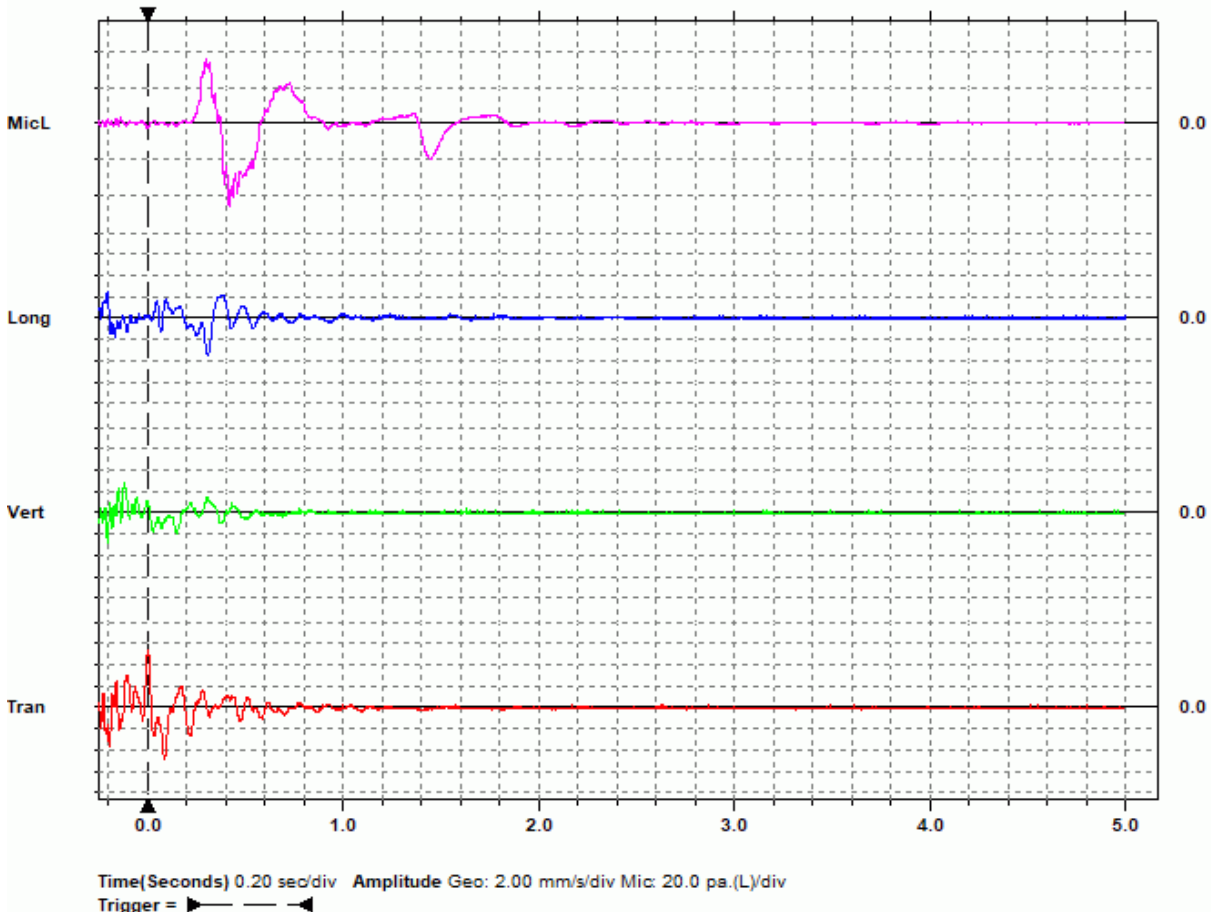
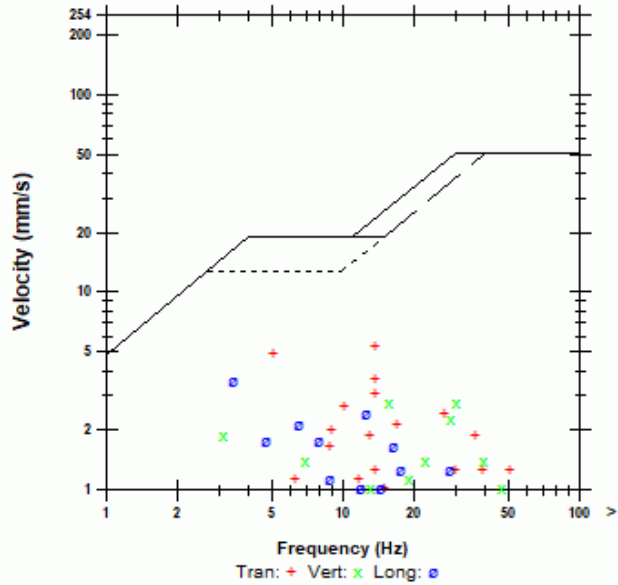
Combo Mode August 12, 2020 05:16:47
 Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 127.2 dB(L) at 0.420 sec.
 ZC Freq 2.5 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	5.33	2.79	3.56	mm/s
ZC Freq	14	30	3.4	Hz
Time (Rel. to Trig)	0.003	-0.203	0.310	sec
Peak Acceleration	0.0795	0.0530	0.0398	g
Peak Displacement	0.109	0.0749	0.100	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 5.44 mm/s At 0.003 sec.

USBM RI8507 And OSMRE



Date/Time Tran At 15:47:03 August 12, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
Battery Level 6.8 Volts
Unit Calibration October 23, 2019 by Instantel
File Name R263IL49.6F0W

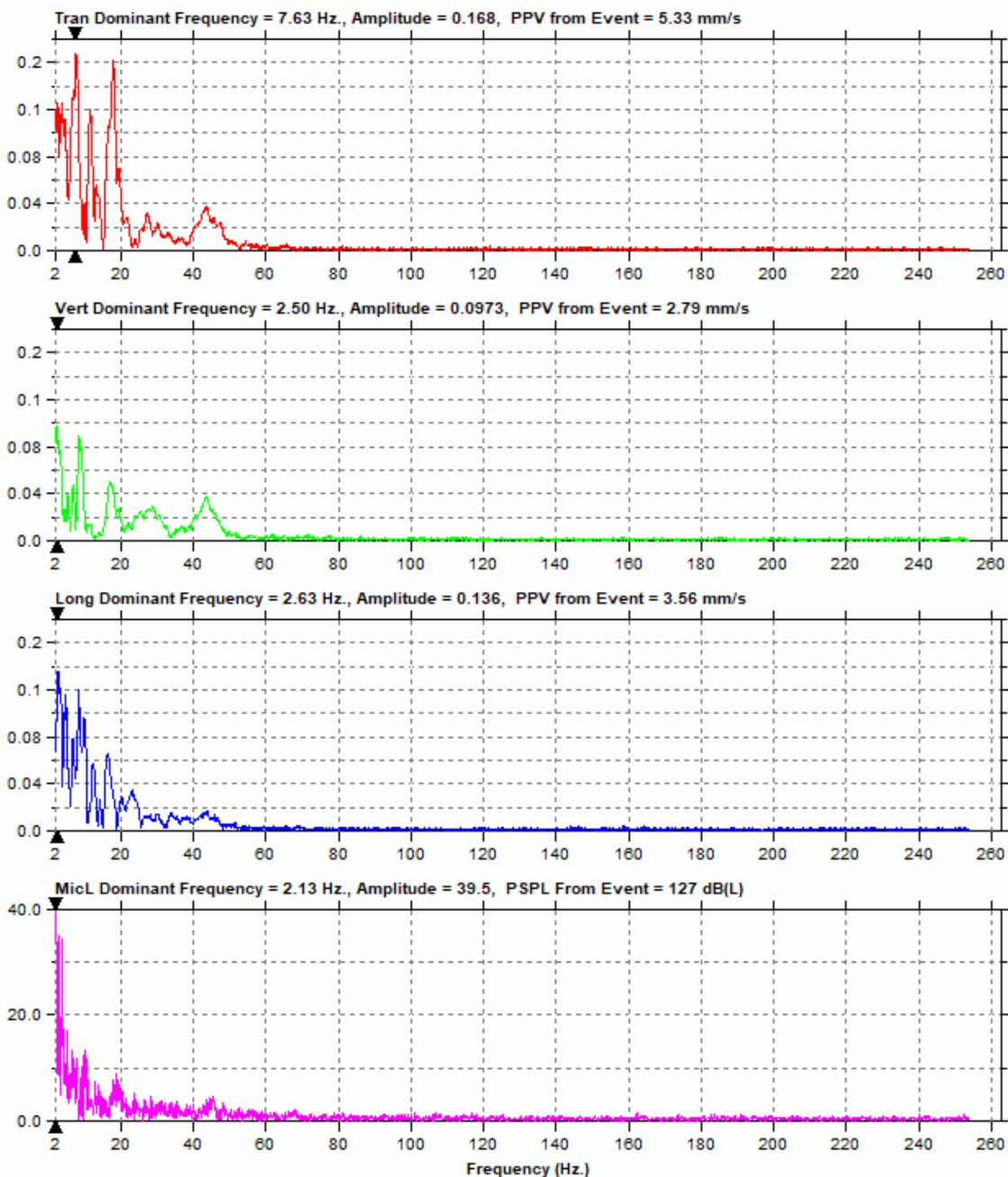
Notes

Location: 77 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 12, 2020 05:16:47
Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Tran At 15:42:38 August 14, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
 Battery Level 6.8 Volts
 Unit Calibration October 23, 2019 by InstanTel
 File Name R263IL7Y.B20W

Notes
 Location: 77 Cougar Ridge Close SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

Extended Notes

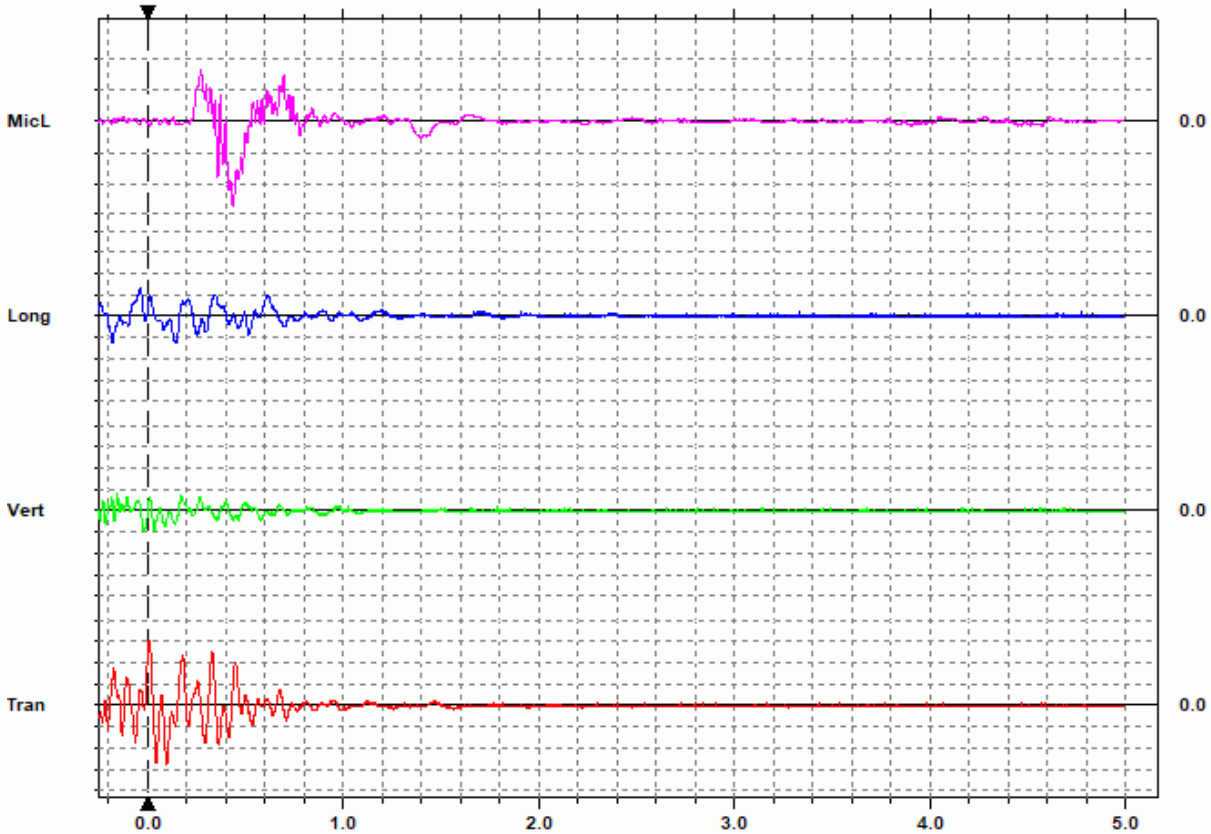
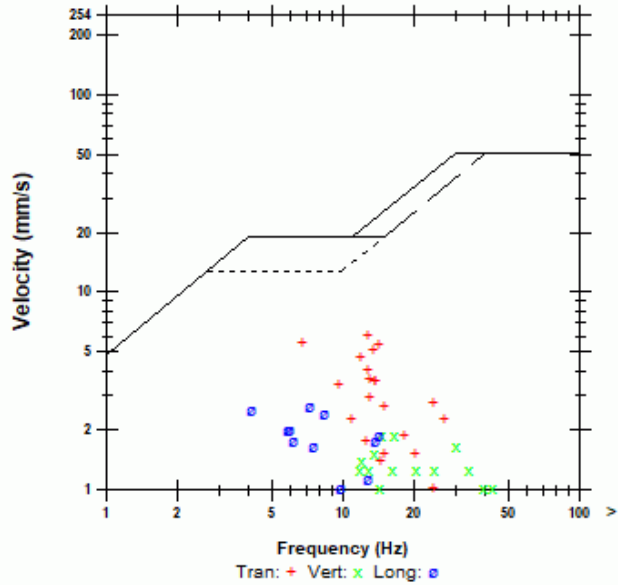
Combo Mode August 14, 2020 05:17:05
 Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 128.6 dB(L) at 0.436 sec.
 ZC Freq 4.2 Hz
 Channel Test Disabled

	Tran	Vert	Long	
PPV	6.10	1.90	2.67	mm/s
ZC Freq	13	15	7.3	Hz
Time (Rel. to Trig)	0.005	-0.015	-0.037	sec
Peak Acceleration	0.0663	0.0530	0.0398	g
Peak Displacement	0.0890	0.0222	0.0614	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 6.42 mm/s At 0.009 sec.

USBM RI8507 And OSMRE



Time(Seconds) 0.20 sec/div Amplitude Geo: 2.00 mm/s/div Mic: 20.0 pa.(L)/div
 Trigger =

Date/Time Tran At 15:42:38 August 14, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE16263 V 10.72-8.17 MiniMate Plus
Battery Level 6.8 Volts
Unit Calibration October 23, 2019 by InstanTel
File Name R263IL7Y.B20W

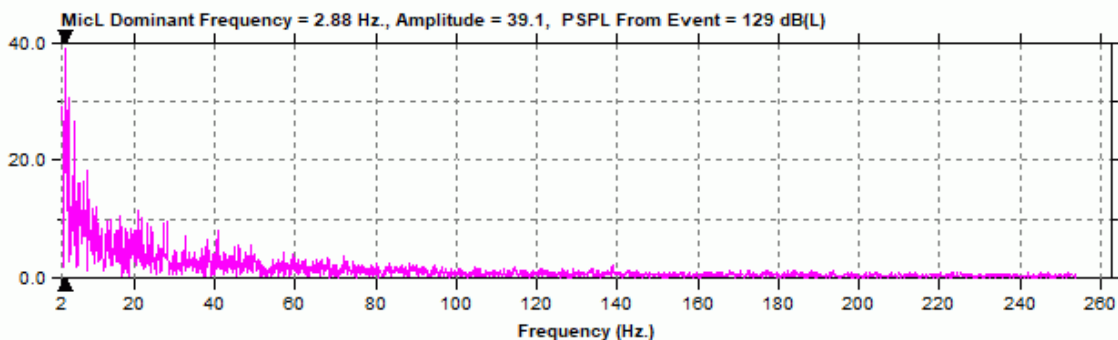
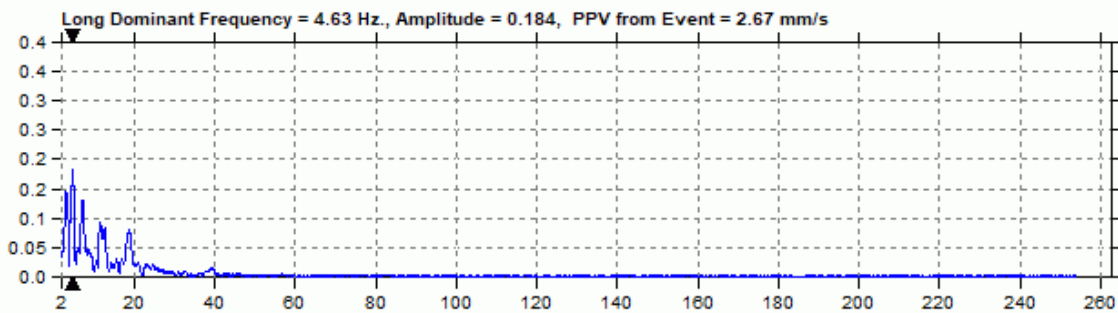
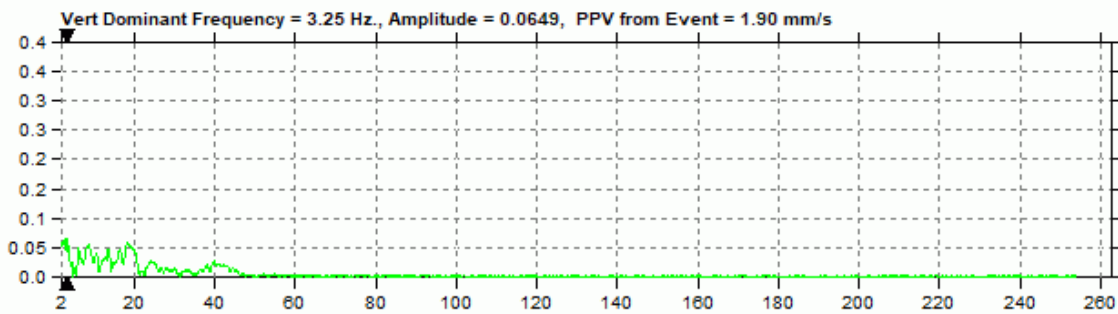
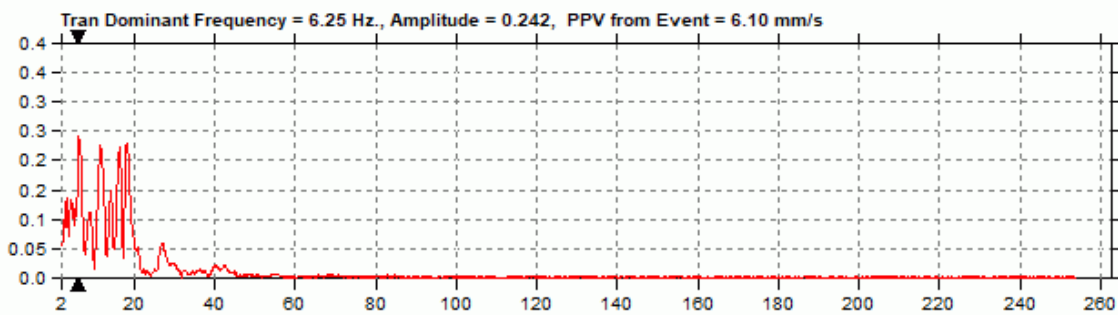
Notes

Location: 77 Cougar Ridge Close SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 14, 2020 05:17:05
Geophone is sandbagged along the Western wall in the backyard of 77 Cougar Ridge Close SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Vert At 17:49:39 August 10, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE9028 V 10.72-8.17 MiniMate Plus
 Battery Level 6.6 Volts
 Unit Calibration December 10, 2019 by InstanTel
 File Name K028IL0P.IR0W

Notes
 Location: 128 Cougarstone Manor SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

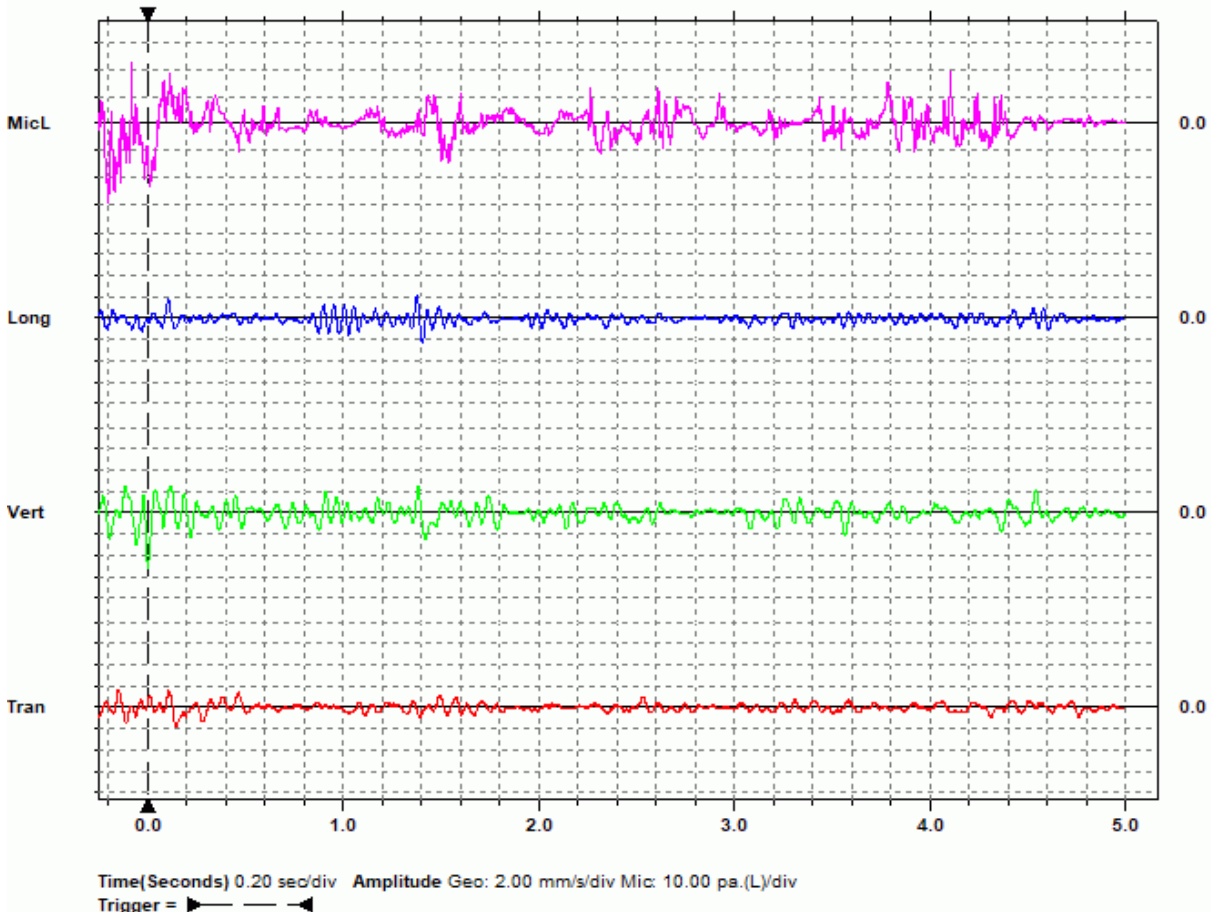
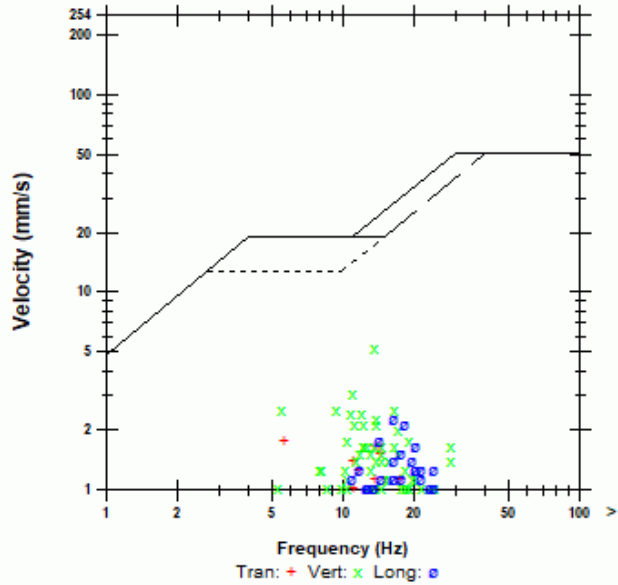
Extended Notes
 Combo Mode August 10, 2020 17:22:28
 Geophone is sandbagged in the backyard of 128 Cougarstone Manor SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 PSPL 123.4 dB(L) at -0.198 sec.
 ZC Freq 12 Hz.
 Channel Test Disabled

	Tran	Vert	Long	
PPV	1.78	5.21	2.29	mm/s
ZC Freq	5.7	13	17	Hz
Time (Rel. to Trig)	0.145	0.002	1.404	sec
Peak Acceleration	0.0265	0.0530	0.0398	g
Peak Displacement	0.0395	0.0607	0.0229	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 5.25 mm/s At 0.003 sec.

USBM R18507 And OSMRE



Date/Time Vert At 17:49:39 August 10, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE9028 V 10.72-8.17 MiniMate Plus
Battery Level 6.6 Volts
Unit Calibration December 10, 2019 by Instantel
File Name K028IL0P.IR0W

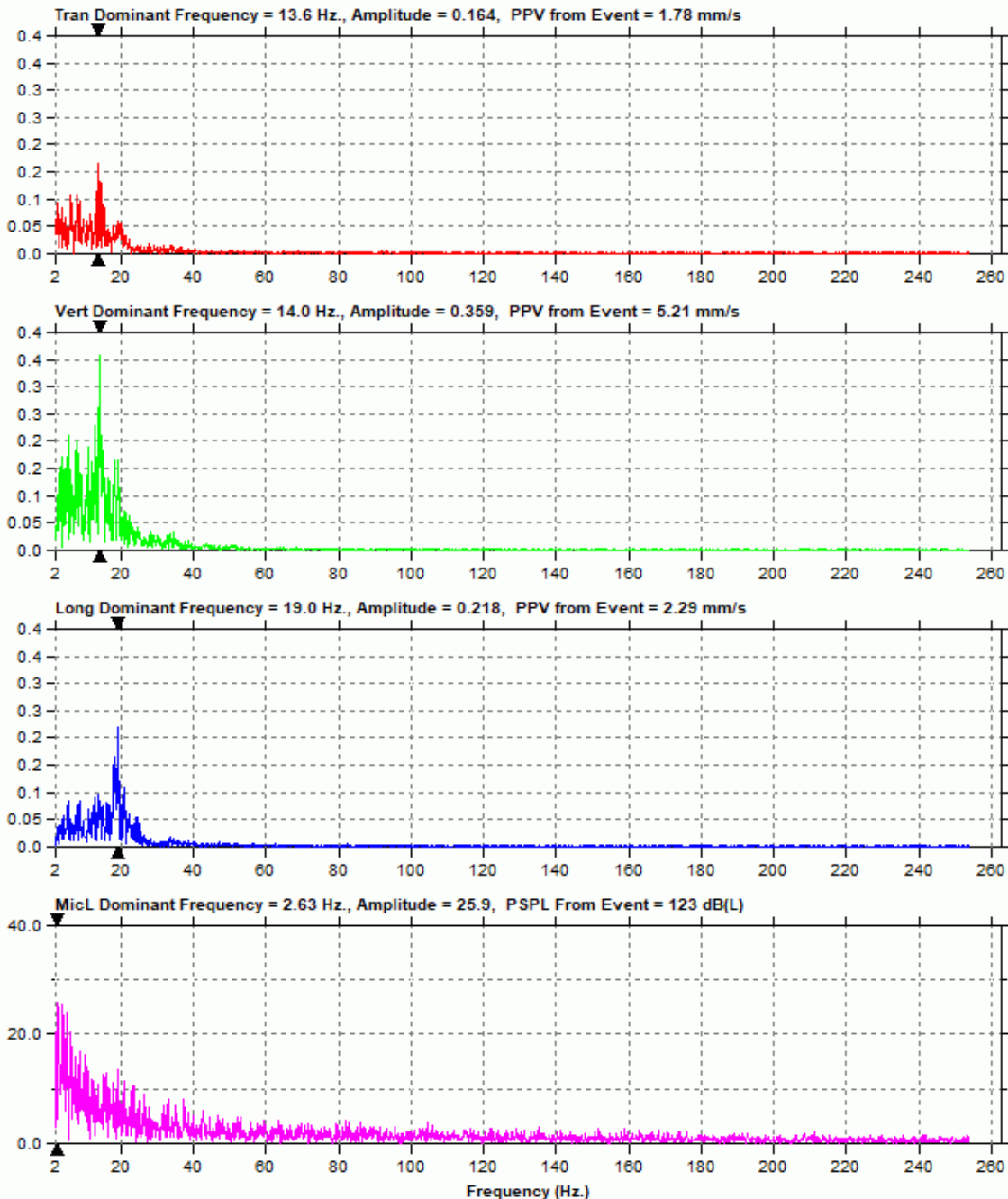
Notes

Location: 128 Cougarstone Manor SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 10, 2020 17:22:28
Geophone is sandbagged in the backyard of 128 Cougarstone Manor SW adjacent ongoing blasting operations.

Post Event Notes



Date/Time Vert At 15:47:54 August 14, 2020
 Trigger Source Geo: 5.00 mm/s
 Range Geo: 254 mm/s
 Sample Rate 5.0 sec. At 1024 Sps
 Job Number 8177

Serial Number BE9028 V 10.72-8.17 MiniMate Plus
 Battery Level 6.6 Volts
 Unit Calibration December 10, 2019 by InstanTel
 File Name K028IL7Y.JU0W

Notes
 Location: 128 Cougarstone Manor SW, Calgary, AB
 Client: McCaw's Drilling and Blasting
 User Name: Explotech Engineering Ltd.
 General: Sandbagged on ground

Post Event Notes

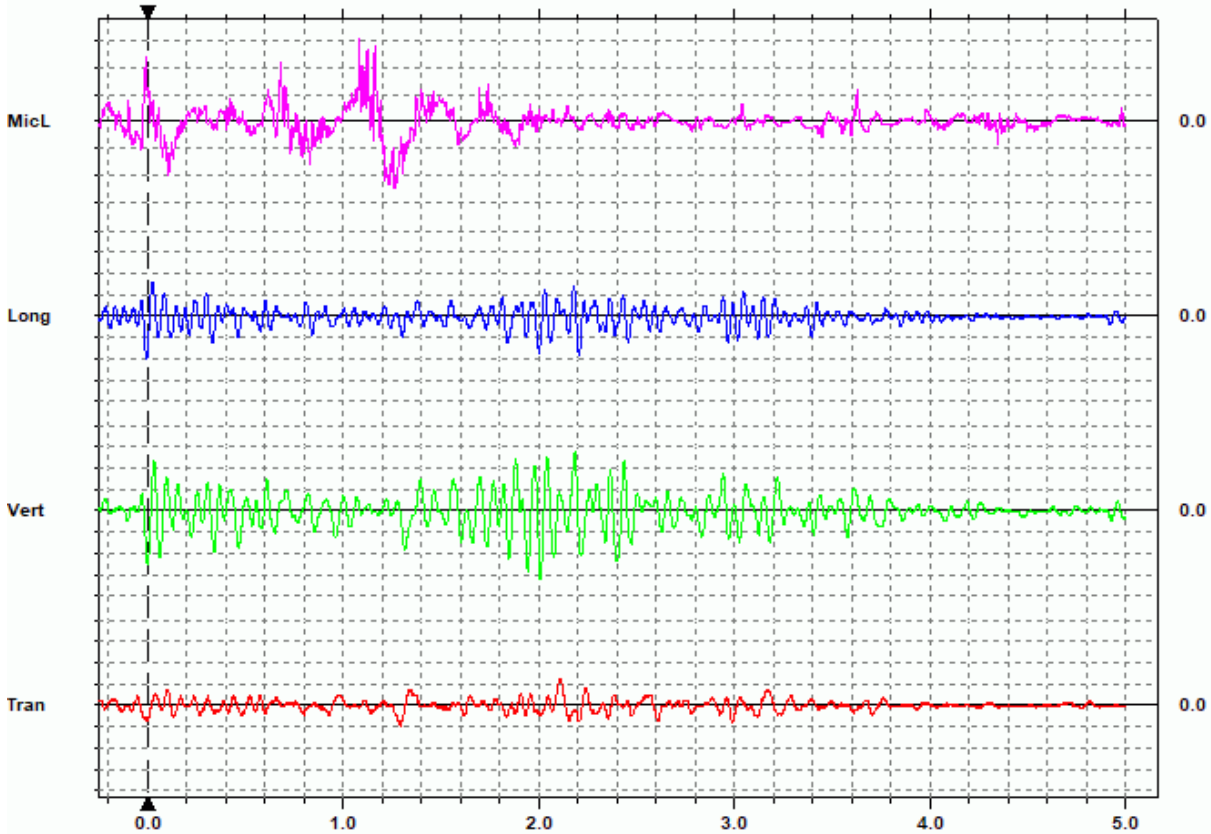
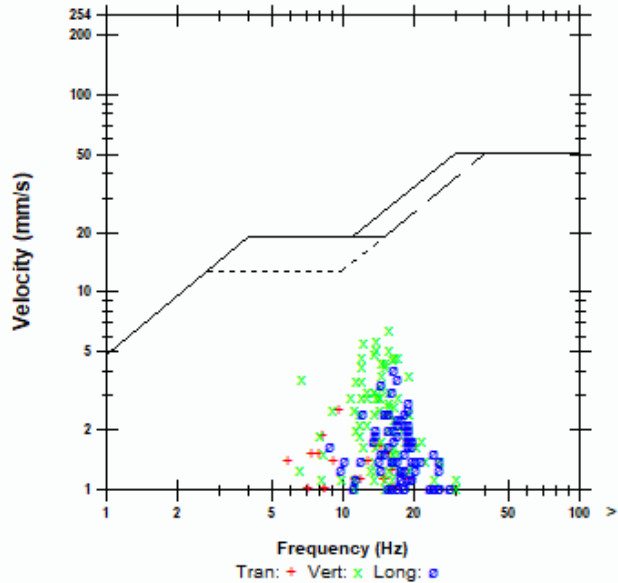
Extended Notes
 Combo Mode August 14, 2020 15:39:12
 Geophone is sandbagged in the backyard of 128 Cougarstone Manor SW adjacent ongoing blasting operations.

Microphone Linear Weighting
 P SPL 129.8 dB(L) at 1.085 sec.
 ZC Freq 3.4 Hz.
 Channel Test Disabled

	Tran	Vert	Long	
PPV	2.54	6.48	4.06	mm/s
ZC Freq	9.7	16	17	Hz
Time (Rel. to Trig)	2.110	2.010	-0.004	sec
Peak Acceleration	0.0265	0.0795	0.0530	g
Peak Displacement	0.0416	0.0691	0.0399	mm
Sensor Check	Disabled	Disabled	Disabled	

Peak Vector Sum 7.06 mm/s At 2.010 sec.

USBM RI8507 And OSMRE



Time(Seconds) 0.20 sec/div Amplitude Geo: 2.00 mm/s/div Mic: 20.0 pa(L)/div
 Trigger = > <

Date/Time Vert At 15:47:54 August 14, 2020
Trigger Source Geo: 5.00 mm/s
Range Geo: 254 mm/s
Sample Rate 5.0 sec. At 1024 Sps
Job Number 8177

Serial Number BE9028 V 10.72-8.17 MiniMate Plus
Battery Level 6.6 Volts
Unit Calibration December 10, 2019 by InstanTel
File Name K028IL7Y.JU0W

Notes

Location: 128 Cougarstone Manor SW, Calgary, AB
Client: McCaw's Drilling and Blasting
User Name: Explotech Engineering Ltd.
General: Sandbagged on ground

Extended Notes

Combo Mode August 14, 2020 15:39:12
Geophone is sandbagged in the backyard of 128 Cougarstone Manor SW adjacent ongoing blasting operations.

Post Event Notes

