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October 26, 2022

Project No.: 22S001.00

Mr. Daniel Guest
**Hammond River Holdings**
Via email: Guest.Daniel@AtlanticWallboard.com

**Re: Blast Vibration Monitoring – Blast No. 2022-39 – Upham East Gypsum Quarry, Upham, N.B.**

Following are the results of the vibration monitoring carried out on behalf of Hammond River Holdings for the blast detonated by Archibald Drilling & Blasting at 14:01 on October 25, 2022. For the monitoring we positioned eleven (11) digital seismographs in the area.

The location of each monitoring point is noted in the following table.

**Blast No. 2022-39 – October 25, 2022**

| Seismograph Location | Time | Approx. dist. from shot to seismograph (m) | Maximum Velocity (mm/s) | Sound Pressure (dB(L)) | Remarks |
|---|---|---|---|---|---|
| 1. Civic No. 4079 Route 111 (PW-09) | 14:01 | 1,310 m S | < 0.5 mm/s | <120 | Unit was not triggered |
| 2. Civic No. 4126 Route 111 (PW-10) | | 929 m S | 0.74 mm/s @ 73 Hz | 118 | - |
| 3. Civic No. 4150 Route 111 (PW-13) | | 806 m SE | 0.25 mm/s @ 32 Hz | 124 | Triggered from airblast |
| 4. Civic No. 2447 Route 820 (PW-07) | | 1,010 m NE | 0.64 mm/s @ 32 Hz | 128 | - |
| 5. PW-03 - Cottage Route 820 | | 680 m N | 0.70 mm/s @ 30 Hz | 128 | - |
| 6. Civic No. 2341 Route 820 (PW-05) | | 633 m N | 2.16 mm/s @ 64 Hz | 129 | >128 |
| 7. Civic No. 50 Myron Road (PW-15) | | 817 m NW | 1.52 mm/s @ 39 Hz | 126 | - |
| 8. Civic No. 86 Myron Road (PW-16) | | 757 m W | 1.29 mm/s @ 43 Hz | 129 | >128 |
| 9. Civic No. 220 Myron Road (PW-01) | | 1,320 m S | < 0.5 mm/s | <120 | Unit was not triggered |
| 10. Civic No. 2337 Route 820 (PW-04) | | 711 m N | 0.70 mm/s @ 32 Hz | 127 | - |
| 11. Civic No. 4140 Route 111 (PW-12) | | 881 m SE | 0.76 mm/s @ 73 Hz | 125 | - |
| **maximum limits as per Approval to Operate** | | | **12.5 mm/s** | **128 dB** | |

The monitors did not detect any vibrations that exceeded the maximum allowable peak particle velocity of 12.5 mm/s (1.25 cm/s) as established in the Approval to Operate (I-10936).

A maximum air overpressure (airblast or sound pressure) of 129 dB(L) was recorded at 2341 Route 820 and 86 Myron Road. The air overpressure recorded at both locations slightly exceeds the limit of 128 dB(L) as established in the Approval to Operate (I-10936).

We trust this information is sufficient at this time. If you have any questions, please do not hesitate to contact us.

Best regards,
**CBCL Limited**

Robert Y. Cyr, M.A.Sc., P.Eng.
*Senior Technical Specialist*

Attachments: Blast Record
Blast and Seismograph Location Plan
Blast Event Reports

Project No: 22S001.00

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# Attachment A

*Blast Record*

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

## IDENTIFICATION:

| | | | |
|---|---|---|---|
| **Blasting Contractor:** | Archibald Drilling & Blasting | | |
| **Blaster's Certification No.:** | 1297 | **Blaster's Name:** | Anthony Wallace |
| **Blast Location:** | N 45º28'52" W 65º38'05" (see attached sketch) | | |
| **Type of Rock:** | Anhydrate/Gypsum | **Est. Vol. or Tonnage:** | 12,595 tonnes |
| **Weather at time of Blast:** | Cloudy – overcast | **Air Temp.:** | 18ºC |
| **Est. Wind Speed :** | ≈10 km/h | **Wind Direction:** | N |
| **Cloud Cover:** | Yes | **Precipitation:** | No |

## BLAST DESIGN:

| | | | |
|---|---|---|---|
| **Total No. Holes:** | 100 | **Hole Diameter:** | 4.5" |
| **Average Depth:** | 5.3 m | **Spacing:** | 10 ft x 10 ft |
| **No. Holes per Delay:** | 2 | **Collar Length:** | 7 ft - 8 ft |
| **Delay between Holes:** | 25 ms | **Delay between Rows:** | 17 & 67 ms |
| **Initiation Method:** | Non-Electric | | |
| **Weight of Explosives per Delay:** | Max.: 110 kg | | |
| **Type and weight of Explosives for Blast:** | 4,910 kg - Fortis ANE | | |

Sketch of shot location, hole layout, timing sequence, free face etc. if available.

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

## BLAST MONITORING

| | |
|---|---|
| **Distance to the Nearest Structure:** | 633 m |
| **Direction to the Nearest Structure:** | N |
| **Structure Type:** | House |
| **Scaled Distance Factor: (distance / sq. rt. of max. wt. per delay):** | 60.4 |

## SAFETY:

| | |
|---|---|
| **Type of Warning Signal Used:** | Siren |
| **Blasting Mats Used (yes or no ):** | No |
| **Airblast Measurement ( yes or no ):** | Yes |
| **Vibration Measurement ( yes or no ):** | Yes |
| **Warning Signs Posted ( yes or no ):** | Yes |
| **Accesses Guarded ( yes or no ):** | Yes |
| **Flyrock Damage ( yes or no ):** | No |

**If Yes, Describe:**

| | |
|---|---|
| **Misfire ( yes or no ):** | No |

**Reviewed By:** Robert Y. Cyr, M.A.Sc., P.Eng.

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

**Data Collection – Seismometer #1**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #21348 |
| Calibration Date: | July 23, 2022 |
| Location of seismograph: | Civic Number 4079 Route 111 (PW-09) |
| Distance and Direction from Blast: | 1,310 m South |
| Transverse Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Vertical Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Longitudinal Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Peak Particle Velocity: | N/A |
| Maximum Airblast: | <120 dB(L) – Unit was not triggered |

**Data Collection – Seismometer #2**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #20204 |
| Calibration Date: | May 31, 2022 |
| Location of seismograph: | Civic Number 4126 Route 111 (PW-10) |
| Distance and Direction from Blast: | 929 m South |
| Transverse Particle Velocity: | 0.37 mm/s @ 34 Hz |
| Vertical Particle Velocity: | 0.74 mm/s @ 73 Hz |
| Longitudinal Particle Velocity: | 0.44 mm/s @ 57 Hz |
| Peak Particle Velocity: | 0.74 mm/s @ 73 Hz |
| Maximum Airblast: | 118 dB(L) |

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

**Data Collection – Seismometer #3**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5371 |
| Calibration Date: | July 27, 2022 |
| Location of seismograph: | Civic Number 4150 Route 111 (PW-13) |
| Distance and Direction from Blast: | 806 m Southeast |
| Transverse Particle Velocity: | 0.06 mm/s @ N/A Hz |
| Vertical Particle Velocity: | 0.19 mm/s @ 43 Hz |
| Longitudinal Particle Velocity: | 0.25 mm/s @ 32 Hz |
| Peak Particle Velocity: | 0.25 mm/s @ 32 Hz |
| Maximum Airblast: | 124 dB(L) |

**Data Collection – Seismometer #4**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5489 |
| Calibration Date: | April 25, 2022 |
| Location of seismograph: | Civic Number 2447 Route 820 (PW-07) |
| Distance and Direction from Blast: | 1,010 m Northeast |
| Transverse Particle Velocity: | 0.64 mm/s @ 32 Hz |
| Vertical Particle Velocity: | 0.51 mm/s @ 28 Hz |
| Longitudinal Particle Velocity: | 0.51 mm/s @ 37 Hz |
| Peak Particle Velocity: | 0.64 mm/s @ 32 Hz |
| Maximum Airblast: | 128 dB(L) |

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

**Data Collection – Seismometer #5**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5635 |
| Calibration Date: | March 1, 2022 |
| Location of seismograph: | Cottage - PW-03 - Route 820 |
| Distance and Direction from Blast: | 680 m North |
| Transverse Particle Velocity: | 0.64 mm/s @ 47 Hz |
| Vertical Particle Velocity: | 0.57 mm/s @ 39 Hz |
| Longitudinal Particle Velocity: | 0.70 mm/s @ 30 Hz |
| Peak Particle Velocity: | 0.70 mm/s @ 30 Hz |
| Maximum Airblast: | 128 dB(L) |

**Data Collection – Seismometer #6**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5632 |
| Calibration Date: | November 15, 2021 |
| Location of seismograph: | Civic Number 2341 Route 820 (PW-05) |
| Distance and Direction from Blast: | 633 m North |
| Transverse Particle Velocity: | 2.10 mm/s @ 51 Hz |
| Vertical Particle Velocity: | 2.16 mm/s @ 64 Hz |
| Longitudinal Particle Velocity: | 1.91 mm/s @ 57 Hz |
| Peak Particle Velocity: | 2.16 mm/s @ 64 Hz |
| Maximum Airblast: | 129 dB(L) (>128 dB(L)) |

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

**Data Collection – Seismometer #7**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5487 |
| Calibration Date: | February 18, 2022 |
| Location of seismograph: | Civic Number 50 Myron Road (PW-15) |
| Distance and Direction from Blast: | 817 m Northwest |
| Transverse Particle Velocity: | 1.52 mm/s @ 39 Hz |
| Vertical Particle Velocity: | 0.83 mm/s @ 39 Hz |
| Longitudinal Particle Velocity: | 1.46 mm/s @ 37 Hz |
| Peak Particle Velocity: | 1.52 mm/s @ 39 Hz |
| Maximum Airblast: | 126 dB(L) |

**Data Collection – Seismometer #8**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #20205 |
| Calibration Date: | May 31, 2022 |
| Location of seismograph: | Civic Number 86 Myron Road (PW-16) |
| Distance and Direction from Blast: | 757 m West |
| Transverse Particle Velocity: | 1.28 mm/s @ 17 Hz |
| Vertical Particle Velocity: | 0.91 mm/s @ 39 Hz |
| Longitudinal Particle Velocity: | 1.29 mm/s @ 43 Hz |
| Peak Particle Velocity: | 1.29 mm/s @ 43 Hz |
| Maximum Airblast: | 129 dB(L) (>128 dB(L)) |

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

**Data Collection – Seismometer #9**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5676 |
| Calibration Date: | February 28, 2022 |
| Location of seismograph: | Civic Number 220 Myron Road (PW-01) |
| Distance and Direction from Blast: | 1,320 m South |
| Transverse Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Vertical Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Longitudinal Particle Velocity: | <0.5 mm/s – Unit was not triggered |
| Peak Particle Velocity: | N/A |
| Maximum Airblast: | <120 dB(L) – Unit was not triggered |

**Data Collection – Seismometer #10**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #5372 |
| Calibration Date: | February 18, 2022 |
| Location of seismograph: | Civic Number 2337 Route 820 (PW-04) |
| Distance and Direction from Blast: | 711 m North |
| Transverse Particle Velocity: | 0.45 mm/s @ 57 Hz |
| Vertical Particle Velocity: | 0.51 mm/s @ 51 Hz |
| Longitudinal Particle Velocity: | 0.70 mm/s @ 32 Hz |
| Peak Particle Velocity: | 0.70 mm/s @ 32 Hz |
| Maximum Airblast: | 127 dB(L) |

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Platinum member

# BLAST RECORD

| | | | |
|---|---|---|---|
| **Project Name:** | Upham Gypsum Quarry | **Date of Blast:** | October 25, 2022 |
| **Project No.:** | 22S001.00 | **Time of Blast:** | 14:01 |
| **Inspector:** | H. Awada | **Blast No.:** | 2022-39 |
| **Client:** | Hammond River Holdings | | |

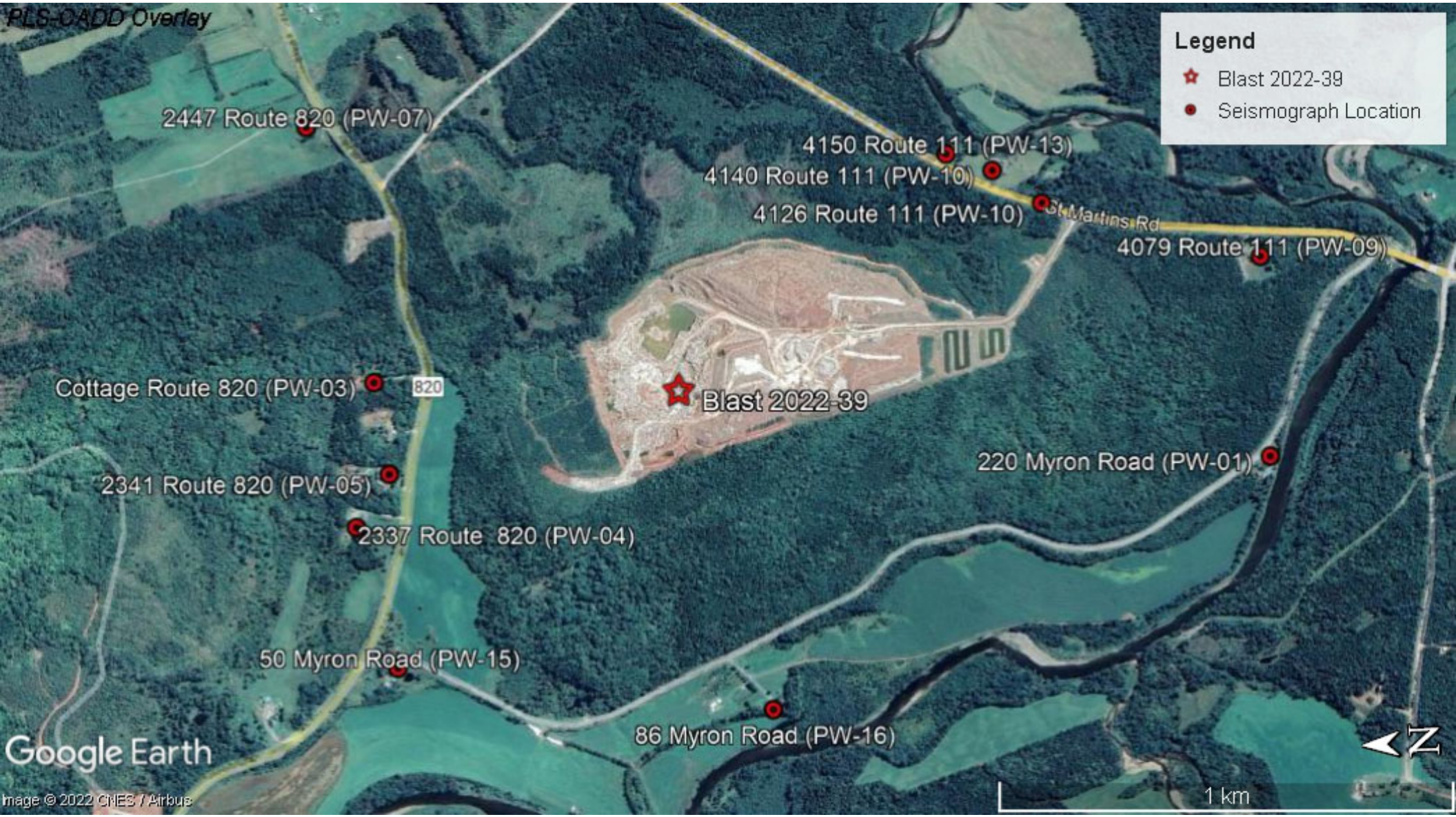
**Data Collection – Seismometer #11**

| | |
|---|---|
| Make, Model and Serial # of unit: | Instantel Mini Mate, Serial #21349 |
| Calibration Date: | July 20, 2022 |
| Location of seismograph: | Civic Number 4140 Route 111 (PW-12) |
| Distance and Direction from Blast: | 881 m Southeast |
| Transverse Particle Velocity: | 0.64 mm/s @ 64 Hz |
| Vertical Particle Velocity: | 0.76 mm/s @ 73 Hz |
| Longitudinal Particle Velocity: | 0.76 mm/s @ 73 Hz |
| Peak Particle Velocity: | 0.76 mm/s @ 73 Hz |
| Maximum Airblast: | 125 dB(L) |

# Attachment B

*Blast and Seismograph Location Plan*

**Blast and Seismograph Location Plan**
**Blast No:** 2022-39
Upham East Gypsum Quarry
Upham, NB




**Date:** October 25, 2022
**Project No.:** 22S001.00

CBCL

# Attachment C

*Blast Event Reports*

# Event Report

| | |
|---|---|
| **Date/Time** | Vert at 14:01:11 October 25, 2022 |
| **Trigger Source** | Geo: 0.500 mm/s, Mic: 120.0 dB(L) |
| **Range** | Geo: 254.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |
| **Operator/Setup:** | Operator/GAYTON.MMB |

| | |
|---|---|
| **Serial Number** | UM20204 V 10-90GC Micromate ISEE |
| **Battery Level** | 3.8 Volts |
| **Unit Calibration** | May 31, 2022 by Instantel |
| **File Name** | UM20204_20221025140111.IDFW |

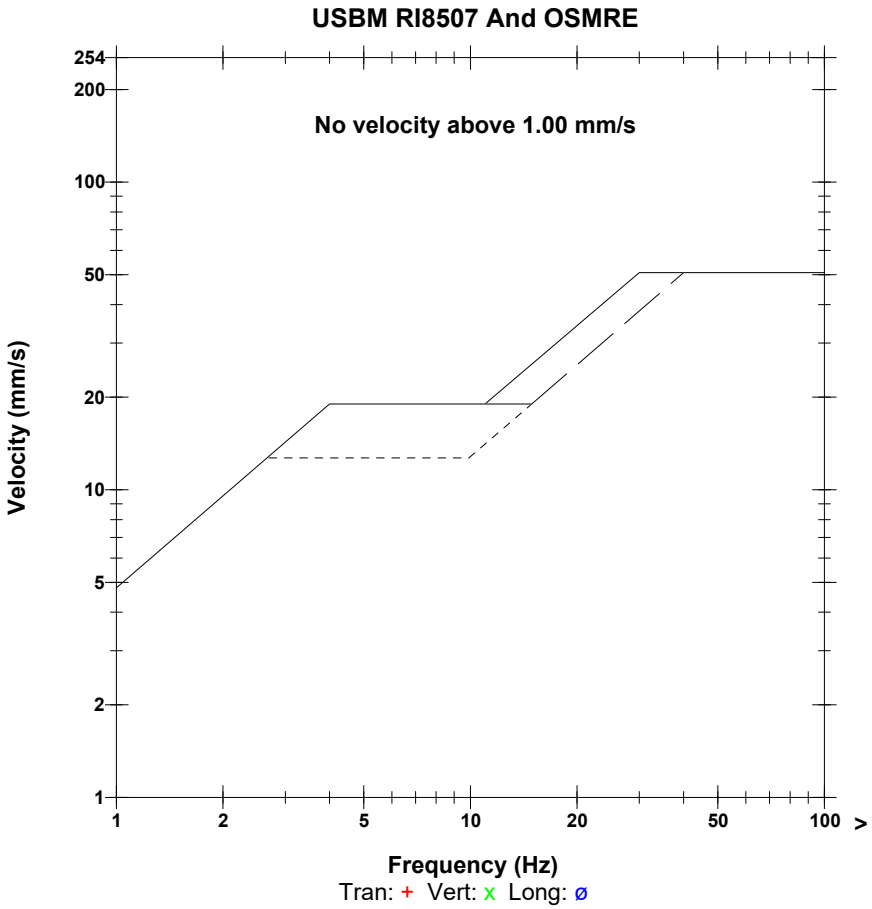
**Notes**
Location:
Client:
User Name:
General:

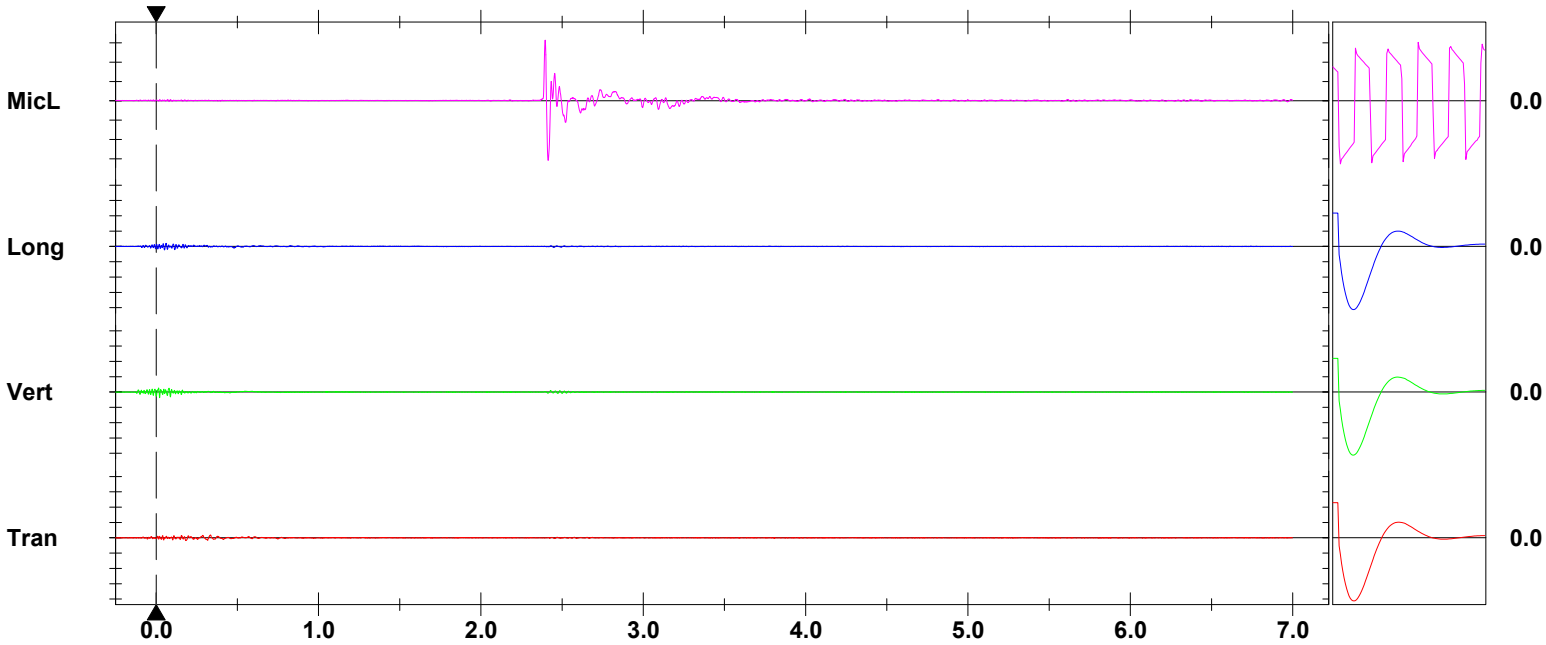
**Post Event Notes**
Location: 4126 Route 111 (PW-10)
Blast No.: 2022-39
Project No: 22S001.00

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 117.9 dB(L) 15.73 pa.(L) at 2.396 sec |
| **ZC Freq** | 4.7 Hz |
| **Channel Test** | Passed (Freq = 20.5 Hz Amp = 1385 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.370 | 0.741 | 0.441 | mm/s |
| **PPV** | 42.37 | 48.40 | 43.90 | dB |
| **ZC Freq** | 34 | 73 | 57 | Hz |
| **Time (Rel. to Trig)** | 0.183 | 0.021 | 0.051 | sec |
| **Peak Acceleration** | 0.021 | 0.032 | 0.027 | g |
| **Peak Displacement** | 0.002 | 0.004 | 0.002 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 7.3 | 7.5 | 7.5 | Hz |
| **Overswing Ratio** | 4.0 | 4.2 | 4.1 | |

**Peak Vector Sum** 0.774 mm/s at 0.021 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 5.000 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | MicL at 14:01:15 October 25, 2022 |
| **Trigger Source** | Geo: 0.492 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

| | |
|---|---|
| **Serial Number** | 5371 V 2.61 MiniMate |
| **Battery Level** | 5.9 Volts |
| **Unit Calibration** | July 27, 2022 by Instantel |
| **File Name** | G371JQIU.Y30 |

**Post Event Notes**
Location: 4150 Route 111 (PW-13)
Blast No.: 2022-39
Project No: 22S001.00

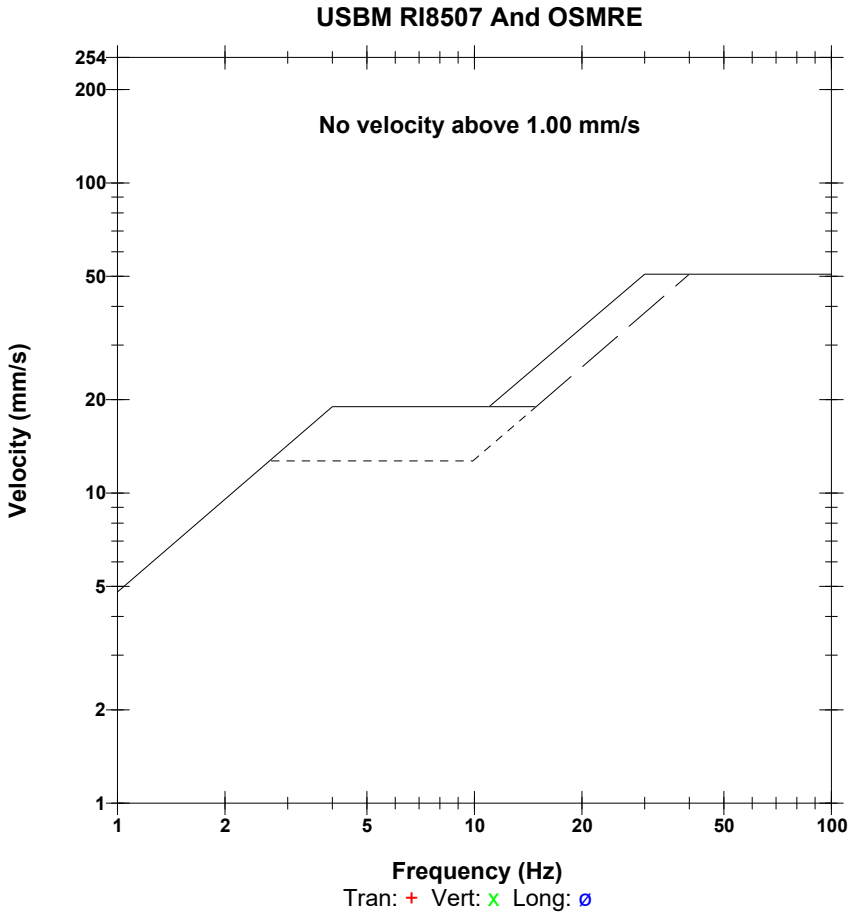
**Notes**
Location:
Client:
User Name:
Converted: October 25, 2022 16:45:08 (V10.72.1)

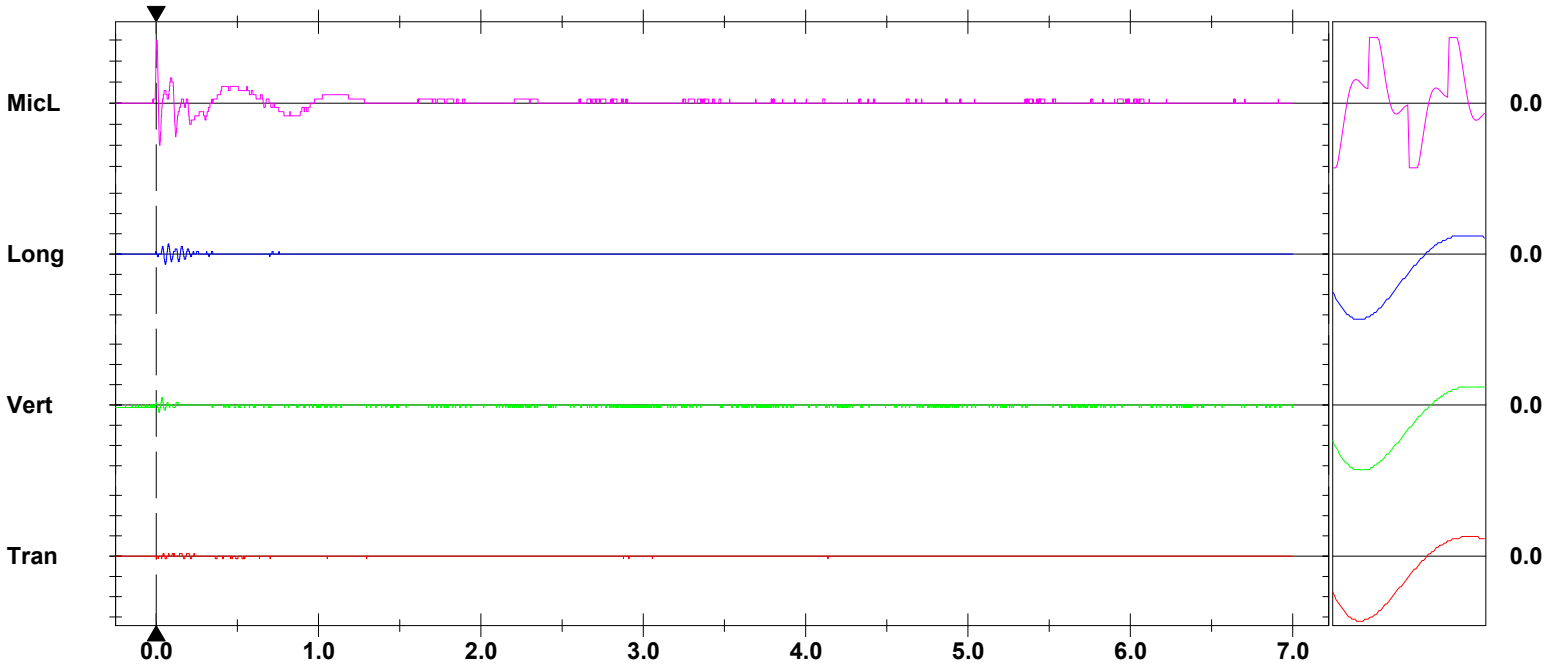
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 123.5 dB(L) 30.00 pa.(L) at 0.005 sec |
| **ZC Freq** | 16 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 302 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.064 | 0.191 | 0.254 | mm/s |
| **PPV** | 27.06 | 36.60 | 39.10 | dB |
| **ZC Freq** | N/A | 43 | 32 | Hz |
| **Time (Rel. to Trig)** | 0.002 | 0.018 | 0.056 | sec |
| **Peak Acceleration** | 0.007 | 0.007 | 0.007 | g |
| **Peak Displacement** | 0.000 | 0.000 | 0.001 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 8.2 | 7.8 | 8.3 | Hz |
| **Overswing Ratio** | 3.5 | 3.7 | 3.7 | |

**Peak Vector Sum** 0.286 mm/s at 0.056 sec
**N/A: Not Applicable**




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 10.000 pa.(L)/div Sensor Check
**Trigger =**


**Format © 1995-2015 Xmark Corporation**

# Event Report

| | |
|---|---|
| **Date/Time** | Tran at 14:01:13 October 25, 2022 |
| **Trigger Source** | Geo: 0.492 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

| | |
|---|---|
| **Serial Number** | 5489 V 2.61 MiniMate |
| **Battery Level** | 6.3 Volts |
| **Unit Calibration** | April 25, 2022 by Instantel |
| **File Name** | G489JQIU.Y10 |

**Post Event Notes**
Location: 2447 Route 820 (PW-07)
Blast No.: 2022-39
Project No: 22S001.00

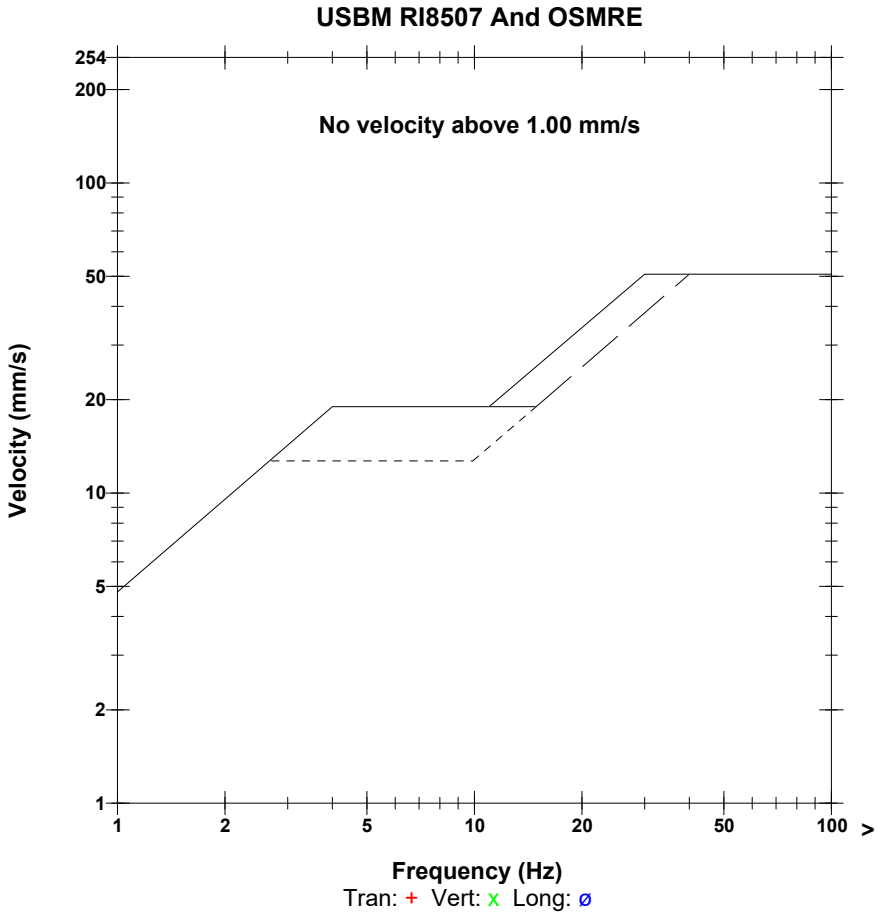
**Notes**
Location:
Client:
User Name:
Converted: October 25, 2022 16:47:56 (V10.72.1)

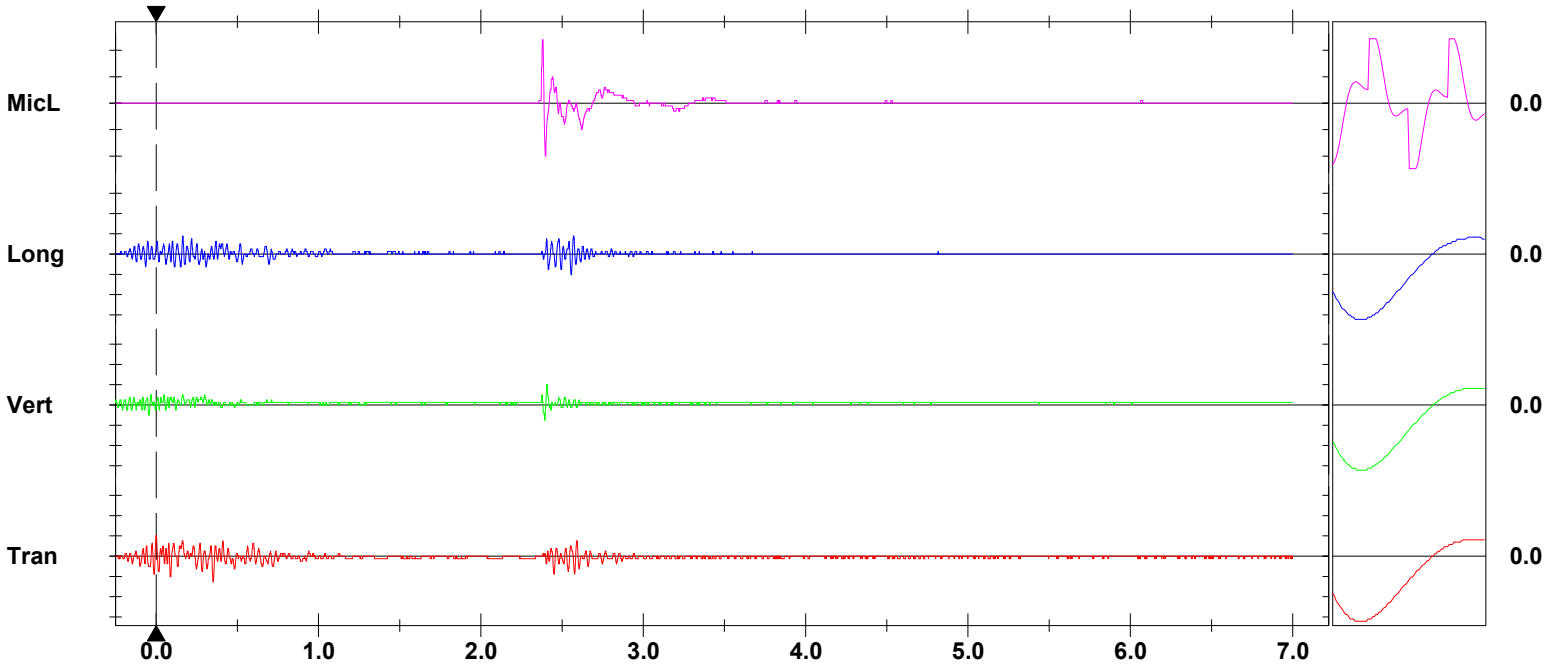
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 127.6 dB(L) 48.00 pa.(L) at 2.380 sec |
| **ZC Freq** | 16 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 272 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.635 | 0.508 | 0.508 | mm/s |
| **PPV** | 47.06 | 45.12 | 45.12 | dB |
| **ZC Freq** | 32 | 28 | 37 | Hz |
| **Time (Rel. to Trig)** | 0.352 | 2.407 | 2.556 | sec |
| **Peak Acceleration** | 0.013 | 0.013 | 0.013 | g |
| **Peak Displacement** | 0.003 | 0.002 | 0.002 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 7.7 | 7.7 | 7.7 | Hz |
| **Overswing Ratio** | 3.8 | 4.0 | 3.9 | |

**Peak Vector Sum** 0.635 mm/s at 0.352 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 20.00 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Long at 14:01:14 October 25, 2022 |
| **Trigger Source** | Geo: 0.492 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

**Notes**
Location:
Client:
User Name:
Converted: October 25, 2022 16:54:16 (V10.72.1)

| | |
|---|---|
| **Serial Number** | 5635 V 2.61 MiniMate |
| **Battery Level** | 6.4 Volts |
| **Unit Calibration** | March 1, 2022 by Instantel |
| **File Name** | G635JQIU.Y20 |

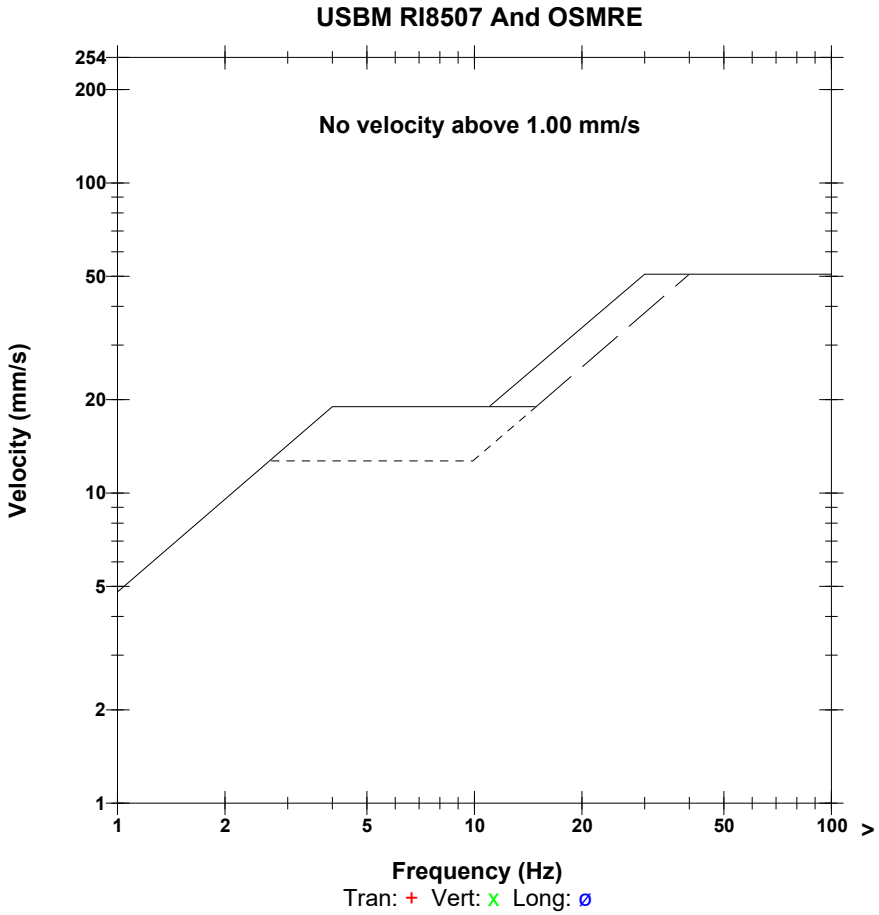
**Post Event Notes**
Location: Cottage - Route 820 (PW-03)
Blast No.: 2022-39
Project No: 22S001.00

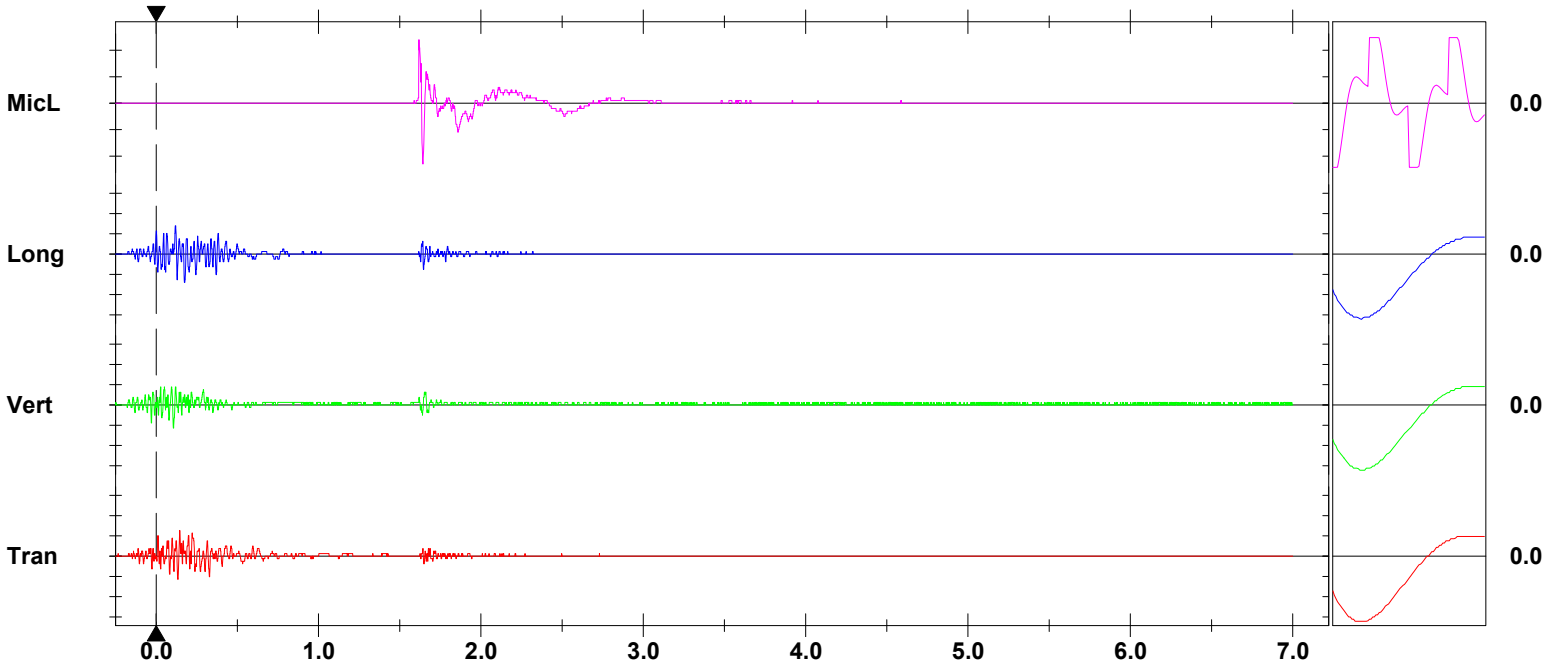
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 127.6 dB(L) 48.00 pa.(L) at 1.619 sec |
| **ZC Freq** | 15 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 297 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.635 | 0.572 | 0.699 | mm/s |
| **PPV** | 47.06 | 46.14 | 47.88 | dB |
| **ZC Freq** | 47 | 39 | 30 | Hz |
| **Time (Rel. to Trig)** | 0.146 | 0.106 | 0.118 | sec |
| **Peak Acceleration** | 0.020 | 0.020 | 0.027 | g |
| **Peak Displacement** | 0.003 | 0.002 | 0.003 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 8.1 | 7.8 | 7.8 | Hz |
| **Overswing Ratio** | 3.2 | 3.7 | 3.9 | |

**Peak Vector Sum** 0.857 mm/s at 0.119 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 20.00 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Vert at 14:01:12 October 25, 2022 |
| **Trigger Source** | Geo: 0.508 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

| | |
|---|---|
| **Serial Number** | 5632 V 2.61 MiniMate |
| **Battery Level** | 6.1 Volts |
| **Unit Calibration** | November 15, 2021 by Instantel |
| **File Name** | G632JQIU.Y00 |

**Notes**
Location:
Client:
User Name:
Converted: October 25, 2022 16:50:04 (V10.72.1)

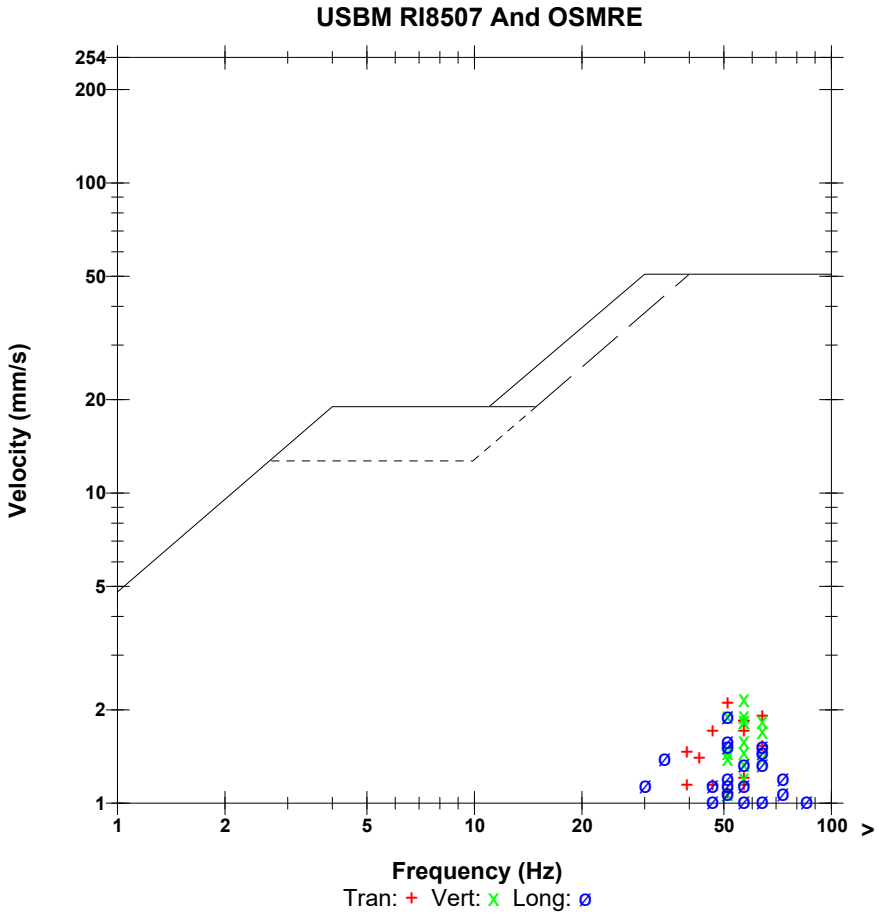
**Post Event Notes**
Location: 2341 Route 820 (PW-05)
Blast No.: 2022-39
Project No: 22S001.00

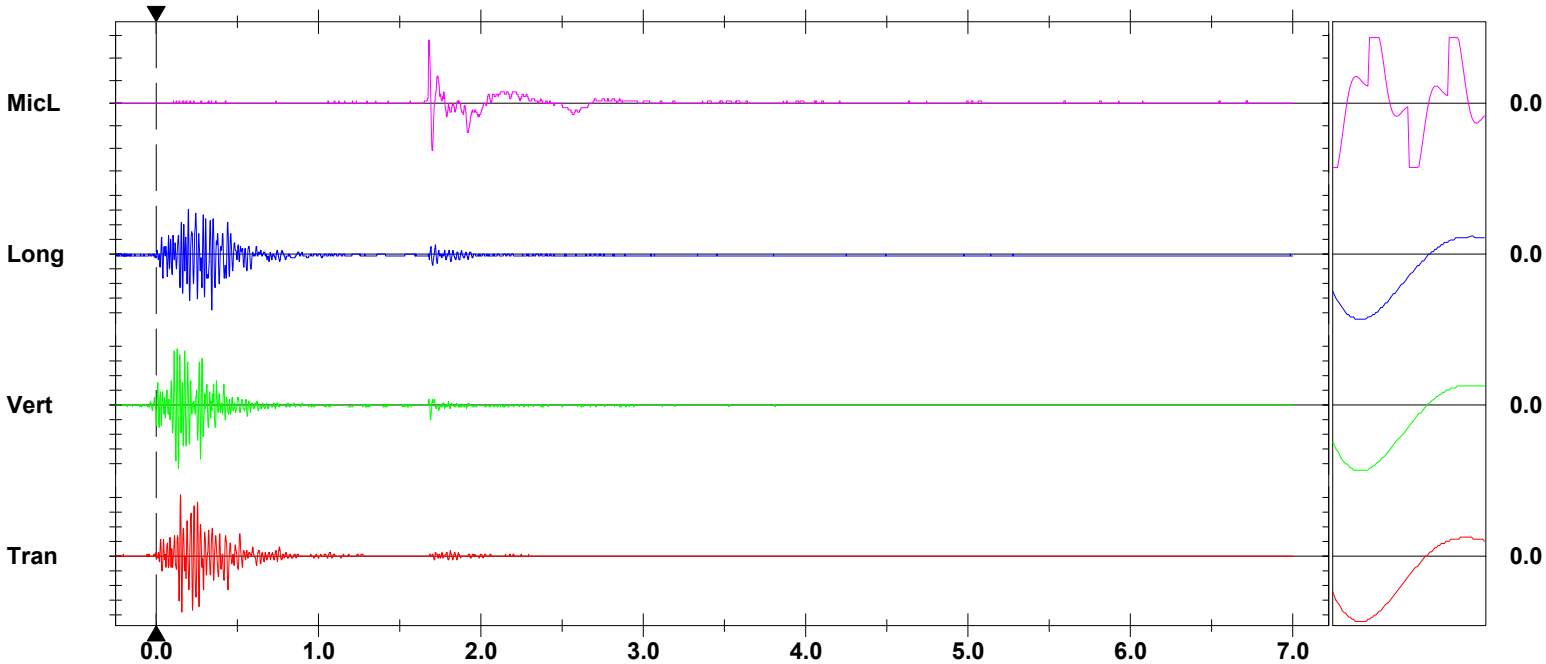
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 128.9 dB(L) 56.00 pa.(L) at 1.681 sec |
| **ZC Freq** | 12 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 296 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 2.096 | 2.159 | 1.905 | mm/s |
| **PPV** | 57.43 | 57.69 | 56.60 | dB |
| **ZC Freq** | 51 | 64 | 57 | Hz |
| **Time (Rel. to Trig)** | 0.151 | 0.139 | 0.343 | sec |
| **Peak Acceleration** | 0.080 | 0.086 | 0.066 | g |
| **Peak Displacement** | 0.006 | 0.006 | 0.007 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 8.2 | 8.2 | 8.0 | Hz |
| **Overswing Ratio** | 3.6 | 3.3 | 3.6 | |

**Peak Vector Sum** 2.619 mm/s at 0.256 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 20.00 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Vert at 14:01:10 October 25, 2022 |
| **Trigger Source** | Geo: 0.492 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

| | |
|---|---|
| **Serial Number** | 5487 V 2.61 MiniMate |
| **Battery Level** | 6.1 Volts |
| **Unit Calibration** | February 18, 2022 by Instantel |
| **File Name** | G487JQIU.XY0 |

**Post Event Notes**
Location: 50 Myron Road (PW-15)
Blast No.: 2022-39
Project No: 22S001.00

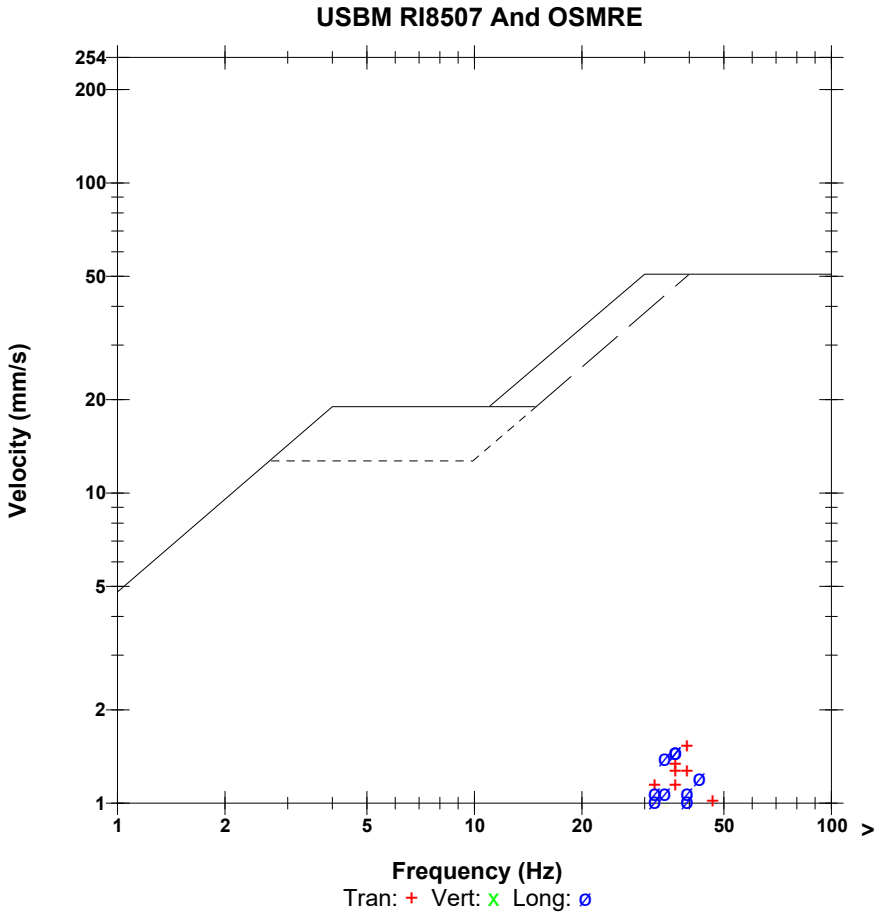
**Notes**
Location:
Client:
User Name:
Converted: October 25, 2022 16:57:00 (V10.72.1)

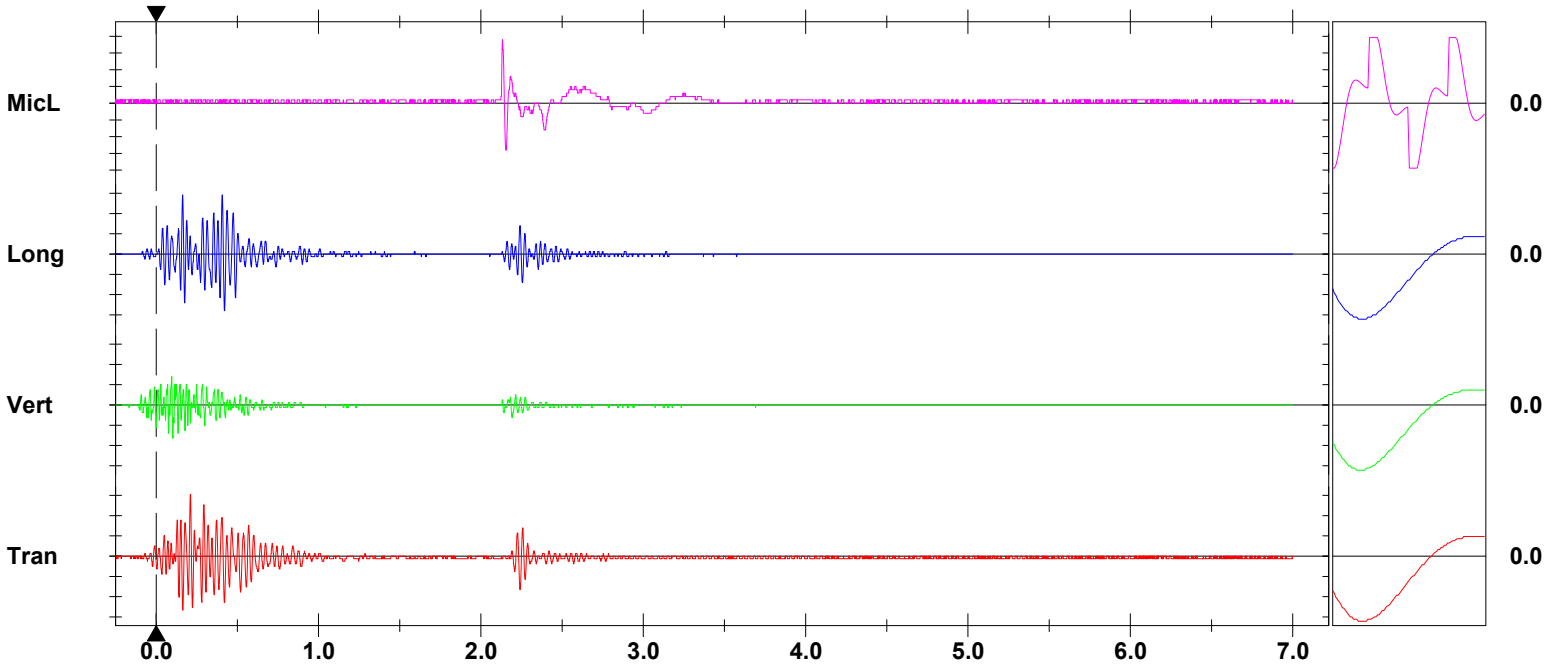
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 125.6 dB(L) 38.00 pa.(L) at 2.134 sec |
| **ZC Freq** | 9.1 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 286 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 1.524 | 0.826 | 1.461 | mm/s |
| **PPV** | 54.66 | 49.33 | 54.29 | dB |
| **ZC Freq** | 39 | 39 | 37 | Hz |
| **Time (Rel. to Trig)** | 0.211 | 0.103 | 0.164 | sec |
| **Peak Acceleration** | 0.040 | 0.040 | 0.033 | g |
| **Peak Displacement** | 0.006 | 0.003 | 0.007 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 7.8 | 7.7 | 7.7 | Hz |
| **Overswing Ratio** | 3.5 | 4.2 | 3.8 | |

**Peak Vector Sum** 1.953 mm/s at 0.165 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 10.000 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Vert at 14:01:07 October 25, 2022 |
| **Trigger Source** | Geo: 0.500 mm/s, Mic: 120.0 dB(L) |
| **Range** | Geo: 254.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |
| **Operator/Setup:** | Operator/GAYTON.MMB |

| | |
|---|---|
| **Serial Number** | UM20205 V 10-90GC Micromate ISEE |
| **Battery Level** | 3.8 Volts |
| **Unit Calibration** | May 31, 2022 by Instantel |
| **File Name** | UM20205_20221025140107.IDFW |

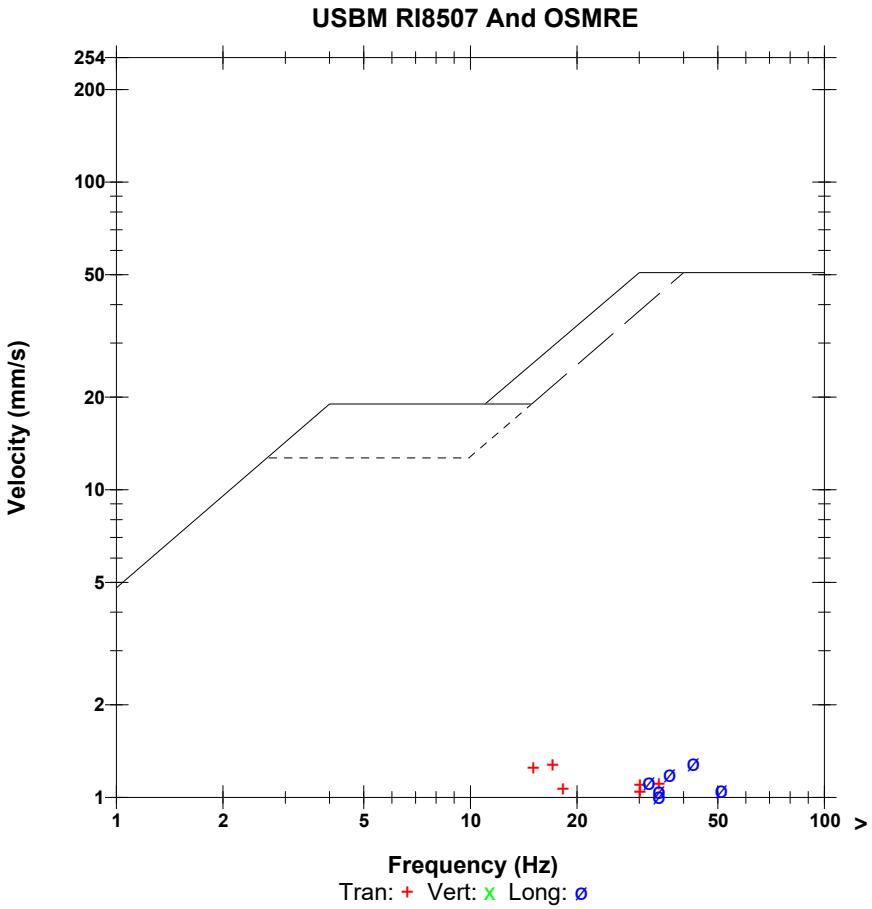
**Notes**
Location:
Client:
User Name:
General:

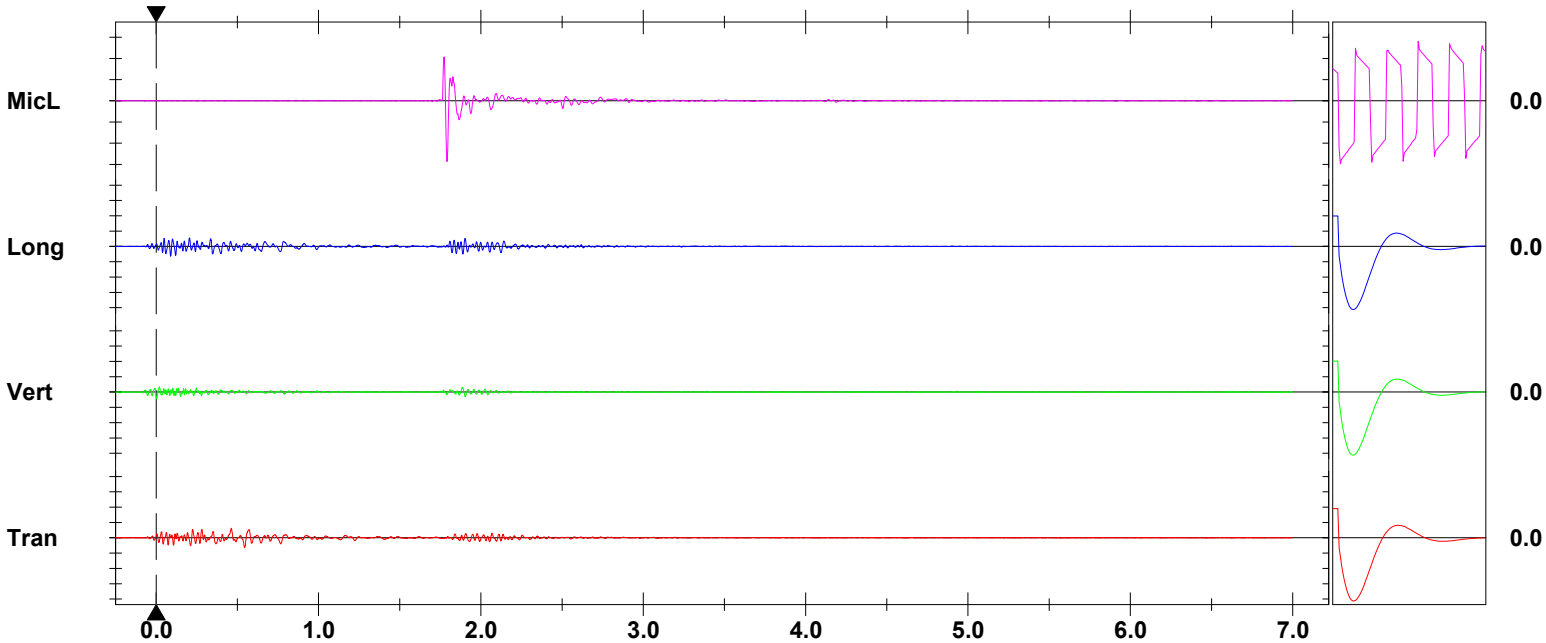
**Post Event Notes**
Location: 86 Myron Road (PW-16)
Blast No.: 2022-39
Project No: 22S001.00

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 129.1 dB(L) 57.34 pa.(L) at 1.792 sec |
| **ZC Freq** | 24 Hz |
| **Channel Test** | Passed (Freq = 20.5 Hz Amp = 1427 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 1.277 | 0.906 | 1.293 | mm/s |
| **PPV** | 53.12 | 50.15 | 53.23 | dB |
| **ZC Freq** | 17 | 39 | 43 | Hz |
| **Time (Rel. to Trig)** | 0.545 | 0.003 | 0.089 | sec |
| **Peak Acceleration** | 0.047 | 0.029 | 0.039 | g |
| **Peak Displacement** | 0.010 | 0.004 | 0.007 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 7.3 | 7.5 | 7.5 | Hz |
| **Overswing Ratio** | 5.1 | 4.9 | 4.8 | |

**Peak Vector Sum** 1.330 mm/s at 0.462 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 20.00 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Long at 14:01:18 October 25, 2022 |
| **Trigger Source** | Geo: 0.492 mm/s, Mic: 119.6 dB(L) |
| **Range** | Geo: 127.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |

| | |
|---|---|
| **Serial Number** | 5372 V 2.61 MiniMate |
| **Battery Level** | 6.2 Volts |
| **Unit Calibration** | February 18, 2022 by Instantel |
| **File Name** | G372JQIU.Y60 |

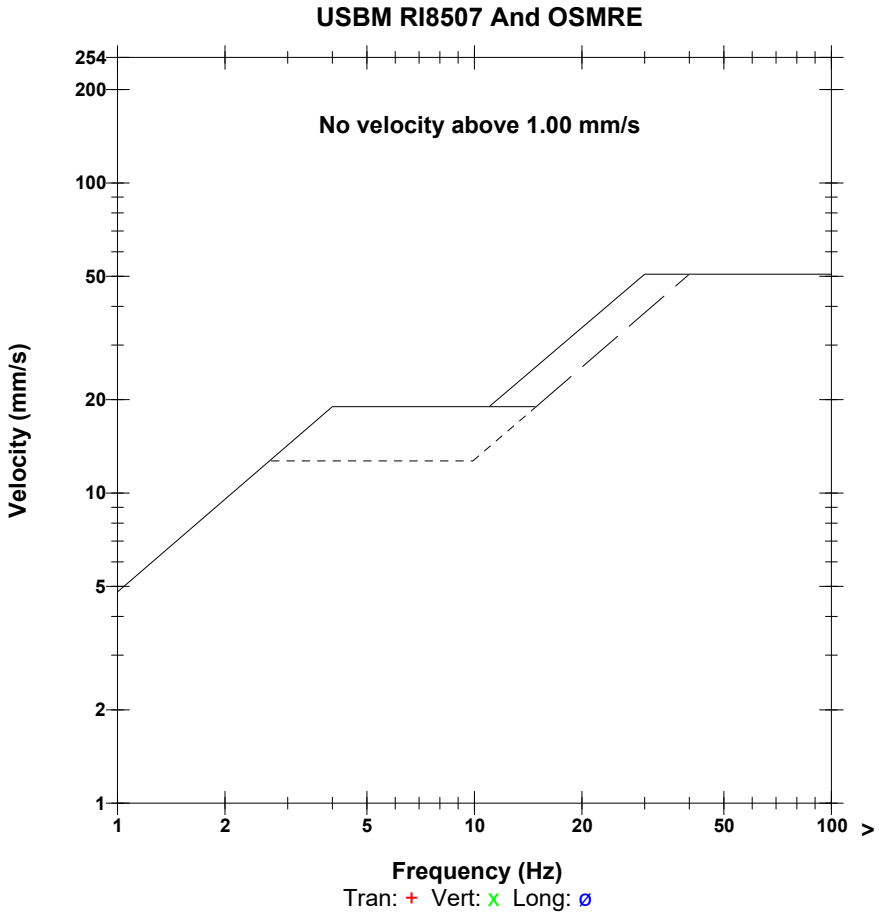
**Notes**
Location: .
Client: UUUTUUUUUUUUU
User Name: UUUUU
Converted: October 25, 2022 17:00:14 (V10.72.1)

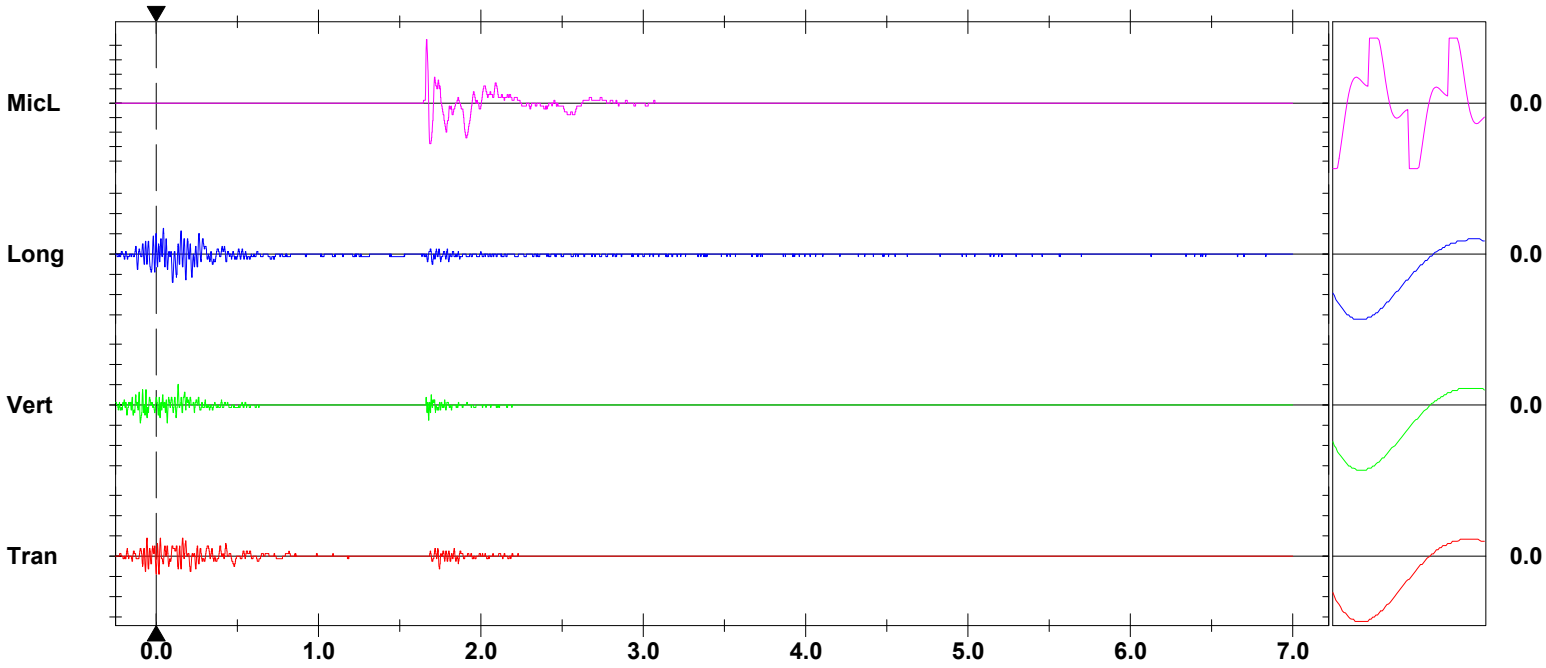
**Post Event Notes**
Location: 2337 Route 820 (PW-04)
Blast No.: 2022-39
Project No: 22S001.00

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 126.8 dB(L) 44.00 pa.(L) at 1.666 sec |
| **ZC Freq** | 15 Hz |
| **Channel Test** | Passed (Freq = 20.0 Hz Amp = 292 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.445 | 0.508 | 0.699 | mm/s |
| **PPV** | 43.96 | 45.12 | 47.88 | dB |
| **ZC Freq** | 57 | 51 | 32 | Hz |
| **Time (Rel. to Trig)** | 0.001 | 0.136 | 0.101 | sec |
| **Peak Acceleration** | 0.020 | 0.020 | 0.020 | g |
| **Peak Displacement** | 0.002 | 0.002 | 0.003 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 8.0 | 8.0 | 7.7 | Hz |
| **Overswing Ratio** | 3.5 | 3.6 | 4.1 | |

**Peak Vector Sum** 0.746 mm/s at 0.183 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 0.500 mm/s/div Mic: 10.000 pa.(L)/div Sensor Check
**Trigger =**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# Event Report

| | |
|---|---|
| **Date/Time** | Vert at 14:01:03 October 25, 2022 |
| **Trigger Source** | Geo: 0.510 mm/s, Mic: 120.0 dB(L) |
| **Range** | Geo: 254.0 mm/s |
| **Record Time** | 7.0 sec at 1024 sps |
| **Job Number:** | 1 |

| | |
|---|---|
| **Serial Number** | BE21349 V 10.72-1.1 Minimate Blaster |
| **Battery Level** | 6.0 Volts |
| **Unit Calibration** | July 20, 2022 by Instantel |
| **File Name** | W349JQH0.9R0 |

**Notes**
Location:
Client:
User Name:
General:

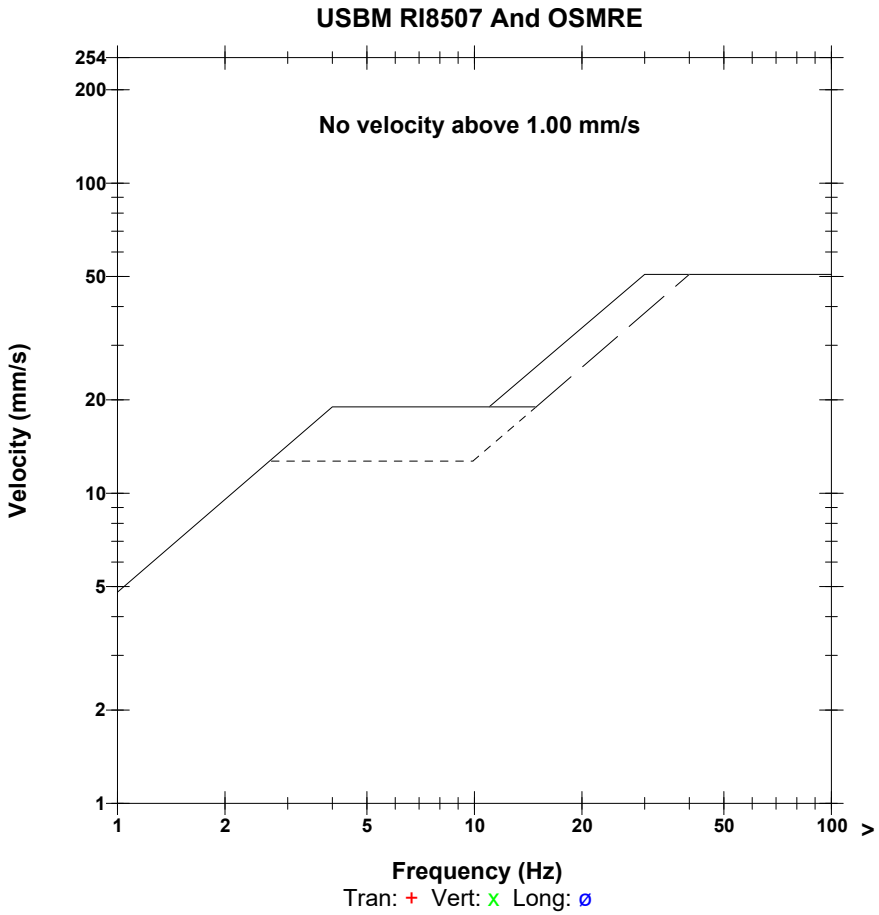
**Post Event Notes**
Location: 4140 Route 111 (PW-12)
Blast No.: 2022-39
Project No: 22S001.00

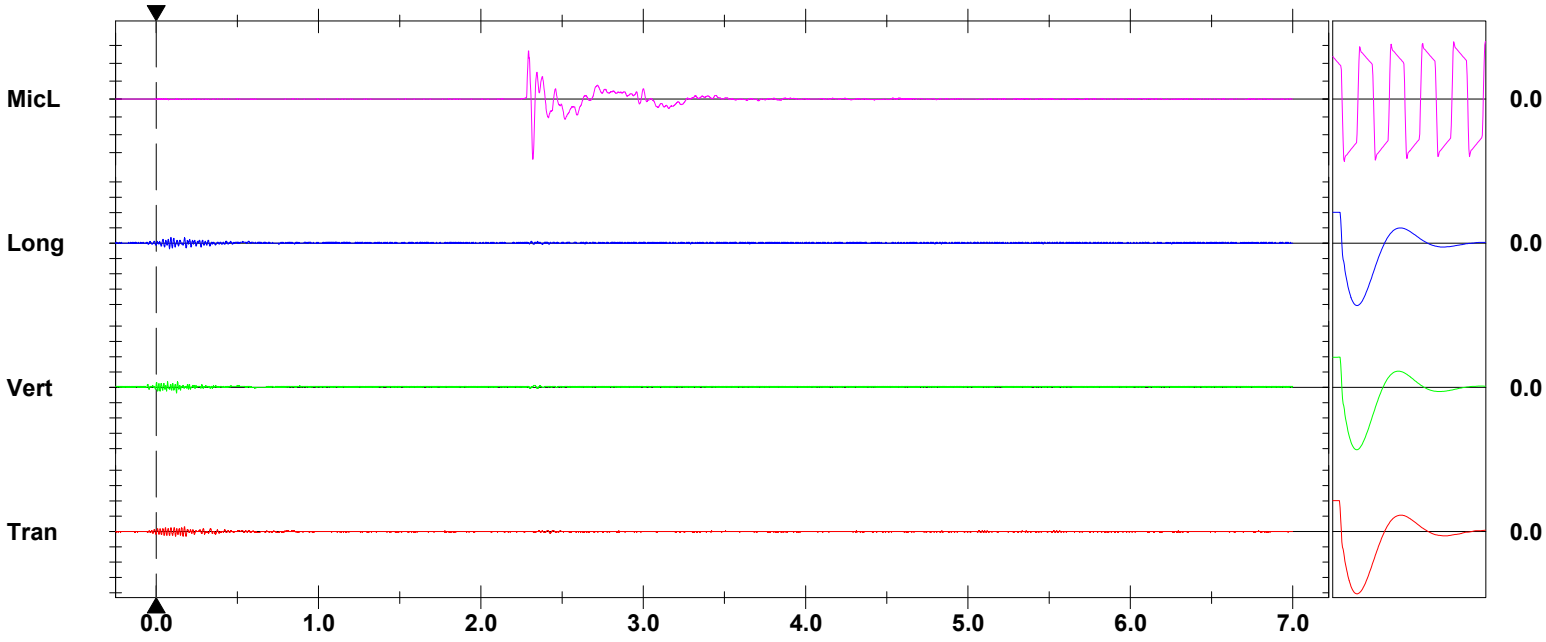
**Extended Notes**

| | |
|---|---|
| **Microphone** | Linear Weighting |
| **PSPL** | 124.5 dB(L) 33.75 pa.(L) at 2.320 sec |
| **ZC Freq** | 20 Hz |
| **Channel Test** | Passed (Freq = 19.7 Hz Amp = 556 mv ) |

| | Tran | Vert | Long | |
|---|---|---|---|---|
| **PPV** | 0.635 | 0.762 | 0.762 | mm/s |
| **PPV** | 47.06 | 48.64 | 48.64 | dB |
| **ZC Freq** | 64 | 73 | 73 | Hz |
| **Time (Rel. to Trig)** | 0.119 | 0.070 | 0.082 | sec |
| **Peak Acceleration** | 0.027 | 0.040 | 0.040 | g |
| **Peak Displacement** | 0.002 | 0.002 | 0.002 | mm |
| **Sensor Check** | Passed | Passed | Passed | |
| **Frequency** | 7.2 | 7.6 | 7.2 | Hz |
| **Overswing Ratio** | 3.8 | 3.9 | 4.1 | |

**Peak Vector Sum** 0.992 mm/s at 0.175 sec




**Time Scale:** 0.50 sec/div **Amplitude Scale:** Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div Sensor Check
**Trigger =**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