



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Acting Director



February 9, 2015

Village of Manteno

Attn: Ms. Janice Schulteis

98 East Third Street

Manteno, Illinois 60950

Dear Ms. Schulteis:

The Illinois Department of Natural Resources installed a blasting seismograph on property located at 1203 Whitetail Drive, Manteno, Illinois 60950. Enclosed, please find a copy of the seismographic data obtained at this location. This data includes blasting events occurring at the VCNA Prairie, Inc. – North Central Materials quarry from 11/19/14 through 01/30/15.

The first page(s) of digital information is a summary of all events recorded by the seismograph, including both blasting and non-blasting events. All subsequent pages are copies of the waveform analysis of the recorded events determined to be blast induced vibrations. Analysis of the waveforms indicate **compliance** with the regulatory limits established to prevent damage to protected structures.

Looking at the waveform analysis, four (4) channels of information are displayed. The first channel is the acoustic or airblast waveform. The regulatory airblast limit is 133 decibels (dB). The next three channels are the ground vibrations waveforms, measured in three (3) mutually perpendicular directions (Radial, Vertical and Transverse). The regulatory ground vibration limit is 1.0 inch per second (ips) for all three (3) directions of motion.

If you have any questions concerning this seismograph information, please contact myself at (815) 216-2361 (cell).

Sincerely,

A handwritten signature in black ink that reads "Myron L. McCaskey".

Myron L. McCaskey – Blasting Specialist

Explosives and Aggregate Division

Office of Mines and Minerals

Enclosure

cc. M.McCaskey

J. Steiner

**Illinois Department of Natural Resources
Office of Mines and Minerals
Explosives and Aggregate Division
VCNA Prairie Inc. - North Central Quarry**

Record Name	Date	Peak (ips)	Acoustic (dB)	Radial (ips)	Vertical (ips)	Transverse (ips)	Serial Number	Seismic Trigger (ips)	Battery
Number	Time	Hz	Hz	Hz	Hz	Hz	Number	dB	Gain
*c:\myron\seismograph...\110520141119001.dtb 001	11/19/2014 14:35	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5100 0.0	1105	0.0800 130	6.9 x2
*c:\myron\seismograph...\110520141123002.dtb 002	11/23/2014 02:36	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5100 0.0	1105	0.0800 130	6.9 x2
*c:\myron\seismograph...\110520141126003.dtb 003	11/26/2014 14:37	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520141126004.dtb 004	11/26/2014 16:41	0.0100 0.0	132 128.0	0.0000 0.0	0.0100 0.0	0.0100 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520141130005.dtb 005	11/30/2014 04:42	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520141203006.dtb 006	12/3/2014 16:43	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520141205007.dtb 007	12/5/2014 15:20	0.1500 23.2	114 5.9	0.1400 18.9	0.1200 32.0	0.1500 23.2	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520141209008.dtb 008	12/9/2014 03:22	0.5000 0.0	134 0.0	0.5000 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520141212009.dtb 009	12/12/2014 15:23	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520141216010.dtb 010	12/16/2014 03:24	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520141219011.dtb 011	12/19/2014 15:25	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520141223012.dtb 012	12/23/2014 03:26	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520141226013.dtb 013	12/26/2014 15:27	0.5200 0.0	134 0.0	0.5200 0.0	0.5100 0.0	0.5100 0.0	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520141230014.dtb 014	12/30/2014 03:28	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	6.9 x2
*c:\myron\seismograph...\110520150102015.dtb 015	1/2/2015 15:29	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.2 x2

* Denotes a calibration event.

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Record Name	Date	Peak (ips)	Acoustic (dB)	Radial (ips)	Vertical (ips)	Transverse (ips)	Serial	Seismic Trigger (ips)	Battery
Number	Time	Hz	Hz	Hz	Hz	Hz	Number	Acoustic Trigger dB	Gain
*c:\myron\seismograph...\110520150106016.dtb 016	1/6/2015 03:30	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.0 x2
c:\myron\seismograph...\110520150106017.dtb 017	1/6/2015 15:02	0.2900 11.2	117 10.3	0.2900 11.2	0.1300 29.2	0.2400 14.0	1105	0.0800 130	7.2 x2
*c:\myron\seismograph...\110520150110018.dtb 018	1/10/2015 03:03	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150113019.dtb 019	1/13/2015 15:04	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.2 x2
*c:\myron\seismograph...\110520150117020.dtb 020	1/17/2015 03:05	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
c:\myron\seismograph...\110520150118021.dtb 021	1/18/2015 16:41	0.0100 0.0	142 31.0	0.0100 0.0	0.0000 0.0	0.0000 0.0	1105	0.0800 130	7.1 x2
c:\myron\seismograph...\110520150121022.dtb 022	1/21/2015 14:59	0.1900 18.2	114 3.5	0.1900 18.2	0.1300 32.0	0.1300 23.2	1105	0.0800 130	7.0 x2
*c:\myron\seismograph...\110520150125023.dtb 023	1/25/2015 03:01	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5100 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150128024.dtb 024	1/28/2015 15:02	0.5100 0.0	134 0.0	0.5100 0.0	0.5100 0.0	0.5000 0.0	1105	0.0800 130	7.1 x2
*c:\myron\seismograph...\110520150130025.dtb 025	1/30/2015 13:02	0.5100 0.0	134 0.0	0.5100 0.0	0.5000 0.0	0.5100 0.0	1105	0.0800 130	7.0 x2

* Denotes a calibration event.

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File Name: c:\myron\seismograph analysis\manteno\man66\110520141205007.dtb
Number: 007
Date: 12/5/2014
Time: 15:20
Serial Number: 1105
Seismic Trigger: 0.0800 in/sec
Acoustic Trigger: 130 dB
Sample Rate: 2048
Duration: 6.0 Seconds
Pre-Trigger: 0.25 Seconds
Gain: 2x
Voltage: 7.0

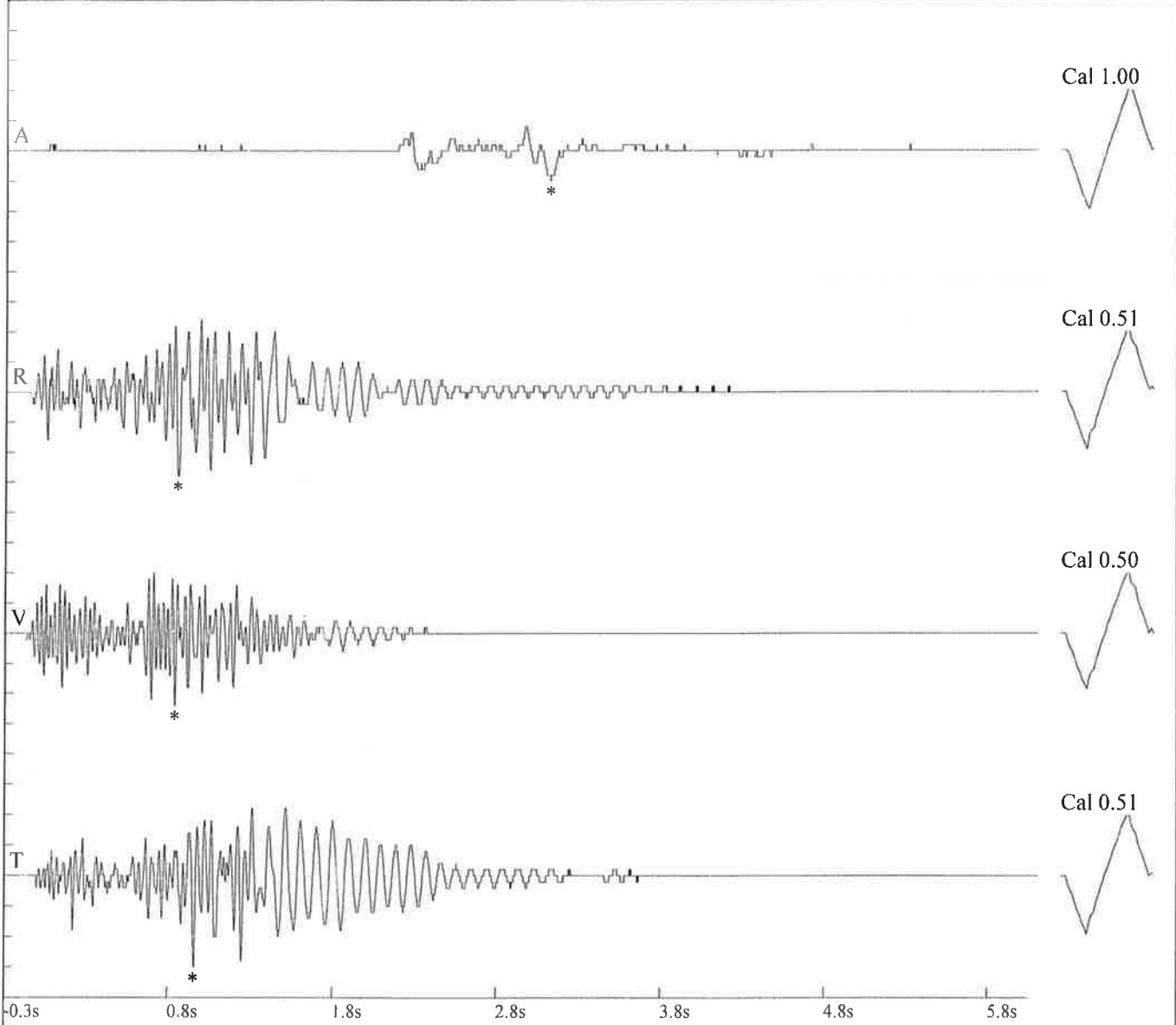
MM

Amplitudes and Frequencies

*Acoustic: 114 dB @ 5.9 Hz
Radial: 0.1400 in/sec @ 18.9Hz
Vertical: 0.1200 in/sec @ 32.0Hz
Transverse: 0.1500 in/sec @ 23.2Hz*

Graph Information

*Duration: -0.250 s To: 6.000 s
Acoustic Scale: 126 dB
Seismic Scale: 0.20 in/sec (0.050 in/sec/div)
Time Intervals at: 1.00 s*



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File Name: c:\myron\seismograph analysis\manteno\man66\110520150106017.dtb

Number: 017

Date: 1/6/2015

Time: 15:02

Serial Number: 1105

Seismic Trigger: 0.0800 in/sec

Acoustic Trigger: 130 dB

Sample Rate: 2048

Duration: 6.0 Seconds

Pre-Trigger: 0.25 Seconds

Gain: 2x

Voltage: 7.2

MSM

Amplitudes and Frequencies

Acoustic: 117 dB @ 10.3 Hz

Radial: 0.2900 in/sec @ 11.2Hz

Vertical: 0.1300 in/sec @ 29.2Hz

Transverse: 0.2400 in/sec @ 14.0Hz

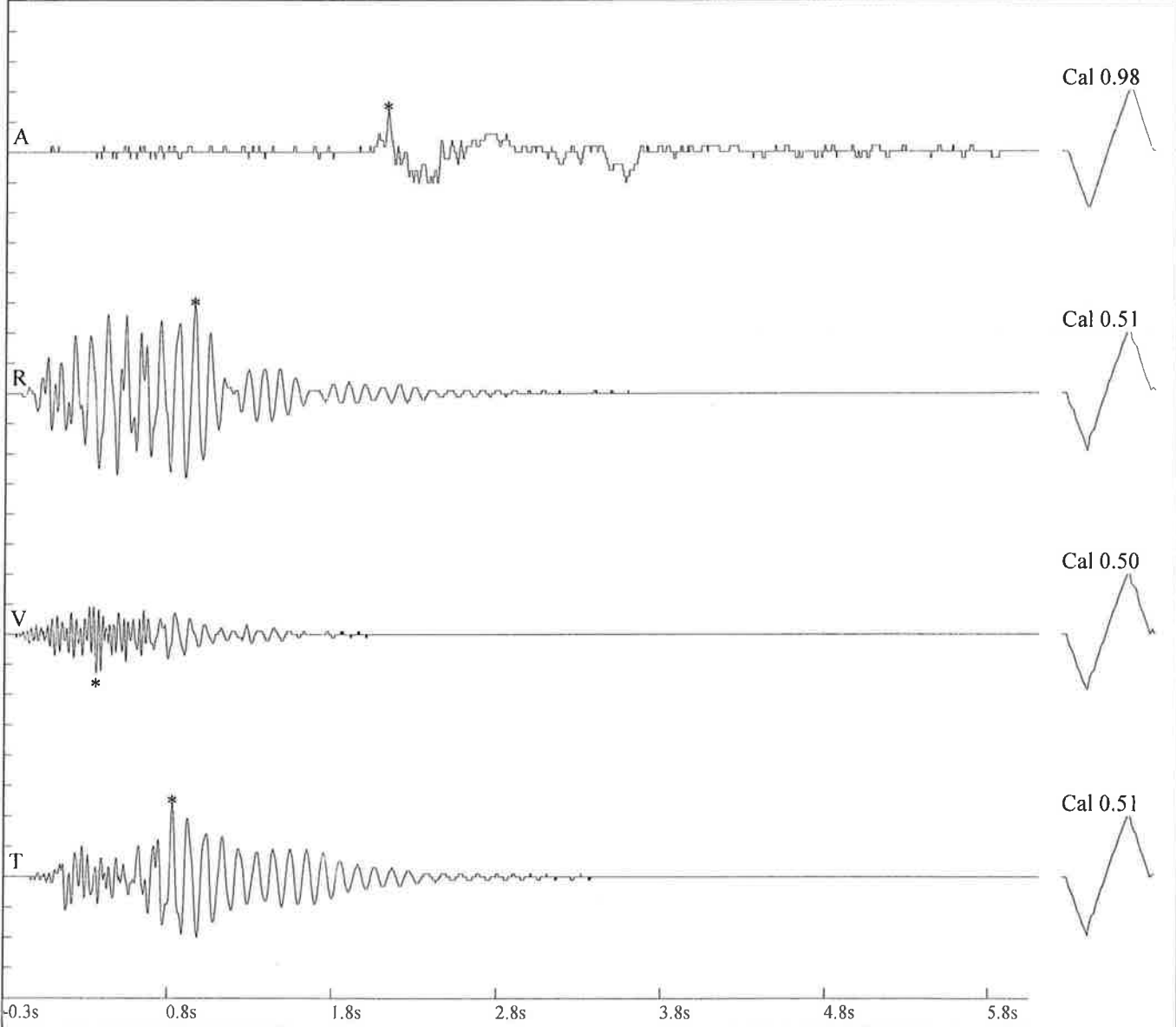
Graph Information

Duration: -0.250 s To: 6.000 s

Acoustic Scale: 126 dB

Seismic Scale: 0.40 in/sec (0.100 in/sec/div)

Time Intervals at: 1.00 s



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File Name: c:\myron\seismograph analysis\manteno\man66\110520150121022.dib
 Number: 022
 Date: 1/21/2015
 Time: 14:59
 Serial Number: 1105
 Seismic Trigger: 0.0800 in/sec
 Acoustic Trigger: 130 dB
 Sample Rate: 2048
 Duration: 6.0 Seconds
 Pre-Trigger: 0.25 Seconds
 Gain: 2x
 Voltage: 7.0

MJM

Amplitudes and Frequencies

Acoustic: 114 dB @ 3.5 Hz
Radial: 0.1900 in/sec @ 18.2Hz
Vertical: 0.1300 in/sec @ 32.0Hz
Transverse: 0.1300 in/sec @ 23.2Hz

Graph Information

Duration: -0.250 s To: 6.000 s
Acoustic Scale: 126 dB
Seismic Scale: 0.20 in/sec (0.050 in/sec/div)
Time Intervals at: 1.00 s

