

CITY OF FRANKLIN
QUARRY MONITORING COMMITTEE*
MEETING AGENDA

Franklin City Hall, Inspection Conference Room
9229 West Loomis Road, Franklin, Wisconsin 53132
Tuesday, August 13, 2024, 6:00 p.m.

- I. Call to Order, Roll Call and Pledge of Allegiance
- II. Approval of Minutes
 - a. Regular meeting of May 14, 2024.
- III. Citizen Comment Period
PLEASE NOTE: Each speaker may need to be limited to three minutes, allowing everyone who wishes the opportunity to speak
- IV. Business (Action may be taken on any item)
 - a. Quarterly presentation by Stantec Consulting Services, Inc., 2nd quarter of calendar year 2024 (April-June).
 - b. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan and Stantec (the City's consultant).
- V. Meeting scheduling discussion
- VI. Adjournment

** Notice is given that a majority of the Common Council may attend this meeting to gather information about an agenda item over which the Common Council has decision-making responsibility. This may constitute a meeting of the Common Council per State ex rel. Badke v. Greendale Village Board, even though the Common Council will not take formal action at this meeting.*

Notice is further given that upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information, please contact the Franklin City Clerk's office at (414) 425-7500.

City of Franklin
Quarry Monitoring Committee Meeting
Hearing Room, Franklin City Hall
6:00 PM
May 14, 2024
Minutes

I. CALL TO ORDER

The May 14, 2024, Quarry Monitoring Committee meeting was called to order by Alderman Mike Barber at 6:00 p.m. in the Hearing Room at City Hall.

Chair Alderman Mike Barber, Alderman Yousef Hasan, Vice-Chair Dina Swanson and members Edward Pings and Jon TenHaken were present. Also present were Principal Planner Régulo Martínez-Montilva, Kristen Gunderson-Inden of Stantec Consulting Services and Bryanna Bucholtz of Payne & Dolan.

II. APPROVAL OF MINUTES

- a. Regular meeting of February 13, 2024.

Alderman Hasan moved and Member TenHaken seconded to approve the minutes as presented. On voice vote, all present voted 'aye'; motion carried (5-0-0).

III. CITIZEN COMMENT PERIOD

Citizen comment period opened at 6:01 p.m. and closed at 6:01 p.m. No comments.

IV. BUSINESS

- a. Selection of Chair and Vice-Chair.

Chair: Alderman Mike Barber. On voice vote, all voted 'aye'; motion carried (5-0-0).

Vice-Chair: Dina Swanson. On voice vote, all voted 'aye'; motion carried (5-0-0).

- b. Quarterly presentation by Stantec Consulting Services, Inc., 1st quarter of calendar year 2024 (January-March).

Kristen Gunderson presented the quarterly report. No action taken.

- c. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan and Stantec (the City's consultant).

Principal Planner Martinez presented. No action taken.

- d. Payne & Dolan biannual report (2022-2023).

Bryanna Bucholtz, Payne & Dolan presented the biannual report (2022-2023).
No action taken.

V. SCHEDULE NEXT MEETING

Next meeting is scheduled for August 13, 2024.

VI. ADJOURNMENT

Member Pings moved and Alderman Hasan seconded to adjourn the May 14, 2024 Quarry Monitoring Committee meeting at 6:30 p.m. All present voted 'aye'; motion carried.

DRAFT



Stantec Consulting Services Inc.
12080 North Corporate Parkway, Suite 200
Mequon WI 53092-2661

July 16, 2024

Project/File: 193710393

Regulo Martinez-Montilva

Principal Planner - Department of City Development
City of Franklin
9229 West Loomis Road
Franklin, Wisconsin 53132
RMartinez-Montilva@franklinwi.gov

Dear Regulo Martinez-Montilva,

Reference: City of Franklin, WI - Franklin Aggregates Quarry Monitoring Summary, Period: 2nd Quarter 2024

The enclosed information summarizes monitoring activities completed during the second quarter of 2024 by Stantec Consulting Services Inc. (Stantec) pertaining to the Franklin Aggregates, Inc. quarry (owned by Payne & Dolan, Inc.) located at 6211 W. Rawson Avenue, Franklin, Wisconsin (the Quarry). Stantec was retained by the City of Franklin to conduct a combination of direct observation (visual) monitoring, seismic monitoring of the quarry operations, and evaluation of citizen complaints. Separate descriptions of services and project background are provided in **Attachments A and B**, respectively. This letter summarizes the results.

Direct Observation (Visual) Monitoring

Copies of completed observation forms are prepared and posted to the project Teams site for review by City representatives. Copies of individual reports are not provided with this summary report.

Six observations events were completed during the monitoring period. Unannounced inspections were completed on April 9, April 16, May 10, May 22, June 6 and June 28, 2024. The street sweeper was observed in use on Rawson Avenue during one of the six site visits. Typically, minor dust was observed from trucks exiting to the east on Rawson Avenue during the visits. No other issues were observed.

Seismic Monitoring

As contracted by the City, Stantec provided remote vibration monitoring using two seismographs co-located with two existing Payne & Dolan (Vibra-Tech) monitors at 7301 S. 51st Street (VT1 and S1) and 5800 W. Allwood Drive (VT4 and S2). The monitoring provides continuous (24/7) remote monitoring. Payne & Dolan also has monitors at 7526 S. 51st Street (VT2) and southeast of the quarry (VT3). Summaries of blasting data, comparing the Payne & Dolan unit recordings to the Stantec (Sauls Seismic) unit recordings, were prepared for the quarter, and are presented in **Attachment C. Figure 1** illustrates the locations of the blasts in the quarter.

Highlights of the seismic data include the following:

Reference: City of Franklin, WI - Franklin Aggregates Quarry Monitoring Summary, Period: 2nd Quarter 2024

- Between April 1 and June 30, 2024, a total of 17 blasting events occurred. 10 of 17 (59%) of these blasts were confirmed by the Stantec monitors.
- Per the Planned Development District agreements (PDD), 85% of the quarry's blasts within any calendar year must be below the maximum permissible vibration (of 0.30 inches per second (in/sec), measured at the closest residence or inhabited structure not owned or controlled by the quarry. This is more stringent than State of Wisconsin regulations which require quarry operators to report any ground vibration levels to the Wisconsin Department of Natural Resources (WDNR) that are above 0.75 in/sec.
 - Two of the blasting events measured by Payne & Dolan or Stantec had a vibration greater than 0.30 in/sec this quarter (June 10 morning – 0.308 in/sec and June 14 – 0.475 in/sec). Neither blast had any complaints. 93% of the quarry's blasts year to date were below this level. This is in conformance with the PDD.
- Per the PDD, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year, measured at the residence or inhabited structure closest to the site of the blast which is not owned or controlled by the Operator. Notwithstanding any other provision in this subsection, the Operator shall not exceed the airblast limitation imposed by Wis. Adm. Code, SPS Ch. 307.
 - One of the blasting events measured by Payne & Dolan or Stantec had an air overpressure (AO) greater than 123dB this quarter (June 6 – 125 dB). 97% of the quarry's blasts this quarter and year to date were below this level. This is in conformance with the PDD.
- The corresponding blast data measured by Stantec with the Sauls Seismic monitors generally aligned with the readings at each Payne & Dolan sponsored Vibra-Tech monitors. There were some larger differences in the AO and frequency readings. It should be noted that in addition to the fact the monitors are produced by different manufacturers, there are a variety of variables that can influence actual readings. The Sauls Seismic monitors were swapped out and recalibrated in late July 2023 by the equipment vendor; calibration is typically completed annually.
- In general, the largest blast readings at each monitor appear to correlate with the proximity of the nearest adjacent blast location.

Blast Complaint Evaluation

A compilation of all blast events and complaints received by Stantec for the period April 1 through June 30, 2024, is provided as **Attachment C**. Note that Attachment C does not provide the actual complainant details (name, address, and phone number) if known; it was decided to have this information remain confidential in this report. However, complainant identity may be released upon public records request to the City of Franklin. The locations of all blasts and complaints are shown on **Figure 1**. The following highlights the results of the complaint evaluation:

Reference: City of Franklin, WI - Franklin Aggregates Quarry Monitoring Summary, Period: 2nd Quarter 2024

Complaints - General

- 7 complaints (formally submitted)
- 0 complaints (informally submitted – phone call only)
- 0 complaints – regarding noise
- 1 complaints – regarding dust/gravel in the road
- 6 complaints – regarding vibration

Complaints – Blast Related

- 6 complaints – corresponding to actual blast events
- 0 complaints – not corresponding to specific blast events
- 3 complaints – complainant requested location not be identified
- 3 complaints – complainant location identified
 - 1 household that complained three times this quarter

Complaints (non-anonymous; confirmed blast related) - Locations

- 0 complaints – east of 51st Street
- 3 complaints – south of Drexel Avenue
- 0 complaints – west of Root River

Summary of Complaint Comments – Blast Related

- May 10, 2024 (highest readings at the 7526 S 51st St monitor – 0.190 in/sec PPV, 7301 S. 51st St monitor - 114 dB AO) – one complaint to the south – blast in southern pit. One formal complaint.
 - “Blasting clearly felt.”
- June 20, 2024 (highest readings at the 7526 S 51st St monitor – 0.273 in/sec PPV, 5800 Allwood monitor - 112 dB AO) – one complaint to the south, one confidential complaint – blast in southern pit. Two formal complaints.
 - “Blasting.”
 - “House shook and rattled very loudly.”

Reference: City of Franklin, WI - Franklin Aggregates Quarry Monitoring Summary, Period: 2nd Quarter 2024

- June 26, 2024 (highest readings at the 7526 S 51st St monitor – 0.143 in/sec PPV and 111 dB AO) – one complaint to the south, one confidential complaint – blast in southern pit. Two formal complaints.
 - *“Blasting.”*
 - *“The entire house shook. Windows and shelves rattled very loudly.”*
- June 27, 2024 (highest readings at the highest readings at the 7526 S 51st St monitor – 0.110 in/sec PPV, 119 dB AO) – one confidential complaint – blast in northern pit. One formal complaint.
 - *“The quarry blast shook the house, rattled the windows, and shelves loudly in the house.”*

Summary of Complaint Comments – Non-Blast Related

- The City of Franklin received an online complaint form on June 25, 2024 regarding gravel at the intersection of Rawson Avenue and South 27th Street.
 - *“Dump trucks full of quarry gravel, when stopping for the traffic light eastbound at 27th and Rawson are dropping gravel in the street and in the intersection. I would submit this as a quarry problem, not a City problem.”*

Blast Events

- 17 blast events - during monitoring period 2Q2024 (shot numbers 13 through 29)
- 4 blast events - corresponding to complaints
 - 0 weather: rain
 - 3 weather: haze, partly to mostly cloudy, or cloudy
 - 1 weather: clear, fair, or scattered clouds
 - 4 time: prior to 12:00 pm (noon)
 - 0 time: after 12:00 pm
- 2 blast events with one complaint
- 2 blast event with two complaints

Reference: City of Franklin, WI - Franklin Aggregates Quarry Monitoring Summary, Period: 2nd Quarter 2024

Quarry Blast Locations Producing Complaints

- 3 southern area of quarry
- 0 central area of quarry
- 1 northern area of quarry

Upon review of these results outlined above, on Figure 1, and in Attachment C, the following observations are made:

- There was one quarry operational complaint made regarding gravel from trucks in the intersection of 27th and Rawson in June. Most complaints focus on quarry blasting and resulting ground vibrations.
- Two blasts this quarter had more than one complaint.
- Two addresses this quarter has complained more than once so far year to date (one address - once in the first quarter and three times this quarter; one address – two informal complaints in the first quarter).
- No complaints came from east of South 51st Street.
- No complaints came from west of the Root River.

Please feel free to contact Mike Roznowski or Kristen Gunderson-Inden if you have any questions.

Sincerely,

STANTEC CONSULTING SERVICES INC.

Kristen Gunderson-Inden

Senior Environmental Scientist
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Attachments: A - Franklin Quarry Seismic Monitoring Description of Services
B - Franklin Quarry Seismic Monitoring Project Background
C - Summary of Seismic Data – 2nd Quarter 2024
Figure 1 - Seismic Monitoring, Blasting, and Complaint Locations, 2nd Quarter 2024

ATTACHMENT A

FRANKLIN QUARRY SEISMIC MONITORING DESCRIPTION OF SERVICES

DESCRIPTION OF SERVICES

Direct Observation (Visual) Monitoring

During 2024, Stantec will conduct a total of sixteen (16) qualitative site visits at the quarry to observe and document whether the site was compliant with operational parameters defined in the existing Planned Development District (PDD) agreements, and to evaluate whether the quarry's general operations are consistent with best management practices employed by other similar quarries. Site visits are a combination of announced and unannounced, but all are conducted during normal business hours. The days of the week and times of the day for the visits vary. The observations are planned to be completed between April and October, when quarry operations are occurring, and airborne dust is more likely. Qualitative data to be collected includes the following:

- Visual observation of all aspects of the mining operation, including but not limited to:
 - Trucking operations, in particular pertaining to dust issues along Rawson Avenue
 - Operational issues that may affect local citizens in some form of adverse off-site impact
- Direct air quality observations, including:
 - General site and surrounding visual air quality, including opacity, in particular along Rawson Avenue
 - Dust control measures and issues on-site that may affect off-site receptors
 - Dust control issues directly adjacent off-site
 - Any other dust issues that may affect local citizens
- Quarry operations review (for announced visits), including:
 - Review of quarry records pertaining to dust control measures and recordkeeping, ensuring that the operator is following standard protocol to minimize off-site impacts, and evaluating how well and how quickly they respond to potential of actual off-site impact situations
 - Comparison of records to stated performance objectives and respective PDD compliance, only as they pertain to dust in general, and along Rawson Avenue in particular

The findings of each visit will be documented on a standard form previously approved by the City. The form will be filled out by hand during each site visit, and then scanned/posted to a project SharePoint site for review by City representatives. Stantec also will obtain photos to document site or directly adjacent off-site conditions, and short-duration video clips (e.g., showing dust impacts). These photos and videos are also uploaded to the project SharePoint site.

In addition to the observations and record review, Stantec also will obtain and document on the inspection forms local meteorological conditions that were relevant to the observations (e.g., temperature, wind speed, wind direction, humidity, and precipitation).

Stantec also will notify the City Planning Manager of any condition (pertaining to air or dust monitoring, or other PDD condition) that we become aware of that exceeds the allowances outlined in the PDD. This communication will be completed prior to noon the business day following the day we become aware of any such event.

Seismic Monitoring

Stantec provides remote vibration monitoring by using Nomis Seismographs. Sauls Seismic is subcontracted to operate two separate seismographs, each co-located with two existing Payne & Dolan (Vibra-Tech) monitors located at: 7301 S. 51st Street, and 5800 W. Allwood Drive. Each monitor was pole-mounted and provided with a weatherproof enclosure. Power is provided via an internal battery and an external battery connected to a solar panel. This type of configuration provides continuous (24/7) remote monitoring, allowing Stantec to have access to data anytime via the Internet.

Stantec also will notify the City Planning Manager of any condition (pertaining to blasting, noise or other PDD condition) that we become aware of that exceeded the allowances outlined in the PDD. This communication will be completed prior to noon the business day following the day we become aware of any such event.

Blast Complaint Evaluation

Periodically the City forwards to Stantec specific information pertaining to quarry complaints received. Stantec evaluates each one on a quarterly basis to determine the following corresponding collaborative conditions:

- Off-site dust complaints: weather conditions (wind direction and speed) the day of the complaint
- Off-site seismic complaints: seismic data from both Stantec (if monitoring at the time) and Payne & Dolan placed monitors
- On occasion, the City may request an exceptional blast complaint evaluation if a blast event receives an unusually high number of complaints. A letter report will be issued by Stantec within approximately one week of the request that describes:
 - seismic data from both Stantec and Payne & Dolan placed monitors
 - weather conditions (wind direction and speed) the day of the complaint
 - a figure showing location of blast and complaints

ATTACHMENT B

FRANKLIN QUARRY SEISMIC MONITORING PROJECT BACKGROUND

Background Summary

Seismic monitoring was completed to document whether the site was compliant with operational parameters defined in the existing Planned Development District (PDD) agreements. Prior to 2018, Stantec completed a variety of 2, 4, and 8-week seismic monitoring periods. During 2018, Stantec completed one 4-week period and one 16-week period of monitoring. Monitoring consisted of placing a city owned and maintained Instantel MiniMate Plus fixed seismograph equipped with an external geophone at one of two city-established blast monitoring sites or vaults for each period. Seismic data was downloaded once every two weeks. Due to equipment limitations the data could not be downloaded remotely as it occurs (i.e., real time).

In 2019, Stantec provided remote vibration monitoring by using Nomis Seismographs. Sauls Seismic was subcontracted to install two separate seismographs, each co-located with two existing Payne & Dolan (Vibra-Tech) monitors located at: 7301 S. 51st Street, and 5800 W. Allwood Drive. Each monitor was pole-mounted and provided with a weatherproof enclosure. Power was provided via an internal battery and an external battery connected to a solar panel. This type of configuration provided continuous (24/7) remote monitoring, allowing Stantec to have access to data anytime via the Internet.

As contracted by the City for 2024, Stantec is providing remote vibration monitoring using two seismographs co-located with two existing Payne & Dolan (Vibra-Tech) monitors at 7301 S. 51st Street and 5800 W. Allwood Drive. The monitors provided continuous (24/7) remote monitoring. Quarterly summaries of blasting data, comparing the Payne & Dolan (Vibra-Tech) unit recordings, to the Stantec (Sauls Seismic) unit recordings, will be prepared for the calendar year.

Per the PDD #23 and #24 Ordinances, 85% of the quarry's blasts within any calendar year must be below the maximum permissible vibration (also referred to as particle or ground velocity) of 0.30 inches per second (in/sec), measured at the closest residence or inhabited structure not owned or controlled by the quarry. This is more stringent than State of Wisconsin regulations (Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast [new reference now Wis. Adm. Code, Safety and Professional Services (SPS) Chapter 307]) which require quarry operators to report any ground vibration levels to the Wisconsin Department of Natural Resources that are above 0.75 in/sec.

Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year, measured at the residence or inhabited structure closest to the site of the blast which is not owned or controlled by the Operator. Notwithstanding any other provision in this subsection, the Operator shall not exceed the airblast limitation imposed by Wis. Adm. Code, SPS Ch. 307.

In addition to obtaining and reviewing the blast data from the city-owned, fixed seismograph, Stantec also received data from Payne & Dolan's Vibra-Tech meters, which provided independently monitored Franklin Aggregate blasting data for the entire calendar year. Four monitors are used by Vibra-Tech, three along South 51st Street, and one just south of West Drexel Avenue. This independently monitored data was compared to the Stantec-obtained data.

ATTACHMENT C

SUMMARY OF SEISMIC DATA – 2nd QUARTER 2024

Payne & Dolan Blast Monitoring Data									Stantec Blast Monitoring Data			Comparison of P&D and Stantec Monitoring Data			Complaint Information			Weather (for complaints only)							
Date	Time	Activity Number	General Quarry Blast Location	Monitor Location	Distance (feet)	PPV (in/sec)	Freq (Hz)	AO (dB)	PPV (in/sec)	Freq (Hz)	AO (dB)	Difference in PPV Values	Difference in Freq Values	Difference in AO dB Values	Complaints?	#	Primary direction of complaints (from quarry)	Wind Direction	Wind Speed (mph)	Wind Gusts (mph)	Press-ure (in)	Humi-dity (%)	Condi-tions	Precip-itation	Temp. (°F)
4/8/2024	45390.48403	13	north	5800 ALLWOOD	4,116	N/T	N/T	N/A	-	-	-	-	-	-	no										
4/8/2024	45390.48056	13	north	7301 S 51st Street	900	0.168	38.5	112.0	0.155	15.5	111.5	0.013	23.0	1											
4/8/2024	45390.48056	13	north	7526 S. 51st Street	1,700	0.063	13.2	114.0																	
4/8/2024	45390.48056	13	north	SE of Quarry	2,658	0.033	19.2	103.0																	
4/9/2024	45391.35417	14	south	5800 ALLWOOD	2,442	N/T	N/T	N/A	-	-	-	-	-	-	no										
4/9/2024	45391.35417	14	south	7301 S 51st Street	2051	N/T	N/T	N/A	-	-	-	-	-	-											
4/9/2024	45391.36042	14	south	7526 S. 51st Street	1,265	0.065	19.2	112.0																	
4/9/2024	45391.36042	14	south	SE of Quarry	1,258	0.045	12.8	105.0																	
4/16/2024	45398.40625	15	north	5800 ALLWOOD	3,767	N/T	N/T	N/A	-	-	-	-	-	-	no										
4/16/2024	45398.40625	15	north	7301 S 51st Street	1,583	N/T	N/T	N/A	-	-	-	-	-	-											
4/16/2024	45398.40625	15	north	7526 S. 51st Street	2,052	N/T	N/T	N/A																	
4/16/2024	45398.40625	15	north	SE of Quarry	2,752	N/T	N/T	N/A																	
4/18/2024	45400.55833	16	south	5800 ALLWOOD	2,651	0.023	20.8	111.0	-	-	-	-	-	-	no										
4/18/2024	45400.55833	16	south	7301 S 51st Street	1837	0.040	41.7	111.0	-	-	-	-	-	-											
4/18/2024	45400.55833	16	south	7526 S. 51st Street	1,008	0.178	20.8	116.0																	
4/18/2024	45400.55833	16	south	SE of Quarry	1,177	0.095	20	116.0																	
4/30/2024	45412.45694	17	north	5800 ALLWOOD	3,933	N/T	N/T	N/A	-	-	-	-	-	-	no										
4/30/2024	45412.45694	17	north	7301 S 51st Street	1607	0.045	14.3	112.0	0.0475	13.4	112.8	-0.003	0.9	-1											
4/30/2024	45412.45694	17	north	7526 S. 51st Street	2,185	0.145	25	110.0																	
4/30/2024	45412.45694	17	north	SE of Quarry	2,921	0.108	20.8	110.0																	
5/6/2024	45418.46458	18	north	5800 ALLWOOD	3,639	0.025	10	108.0	-	-	-	-	-	-	no										
5/6/2024	45418.46458	18	north	7301 S 51st Street	1,466	0.070	31.3	119.0	0.06	26.9	119.7	0.010	4.4	-1											
5/6/2024	45418.46458	18	north	7526 S. 51st Street	1,840	0.088	7.6	117.0																	
5/6/2024	45418.46458	18	north	SE of Quarry	2,540	0.038	11.1	112.0																	
5/10/2024	45422.42083	19	south	5800 ALLWOOD	2,125	0.025	13.9	109.0	-	-	-	-	-	-	yes	1	south	calm	0	0	29.18	57	fair	0	57
5/10/2024	45422.42083	19	south	7301 S 51st Street	2376	0.038	16.7	114.0	-	-	-	-	-	-											
5/10/2024	45422.42083	19	south	7526 S. 51st Street	1,365	0.190	33.3	111.0																	
5/10/2024	45422.42083	19	south	SE of Quarry	948	0.125	17.9	110.0																	
5/13/2024	45425.42847	20	north	5800 ALLWOOD	3,558	0.020	7.8	105.0	-	-	-	-	-	-	no										
5/13/2024	45425.42847	20	north	7301 S 51st Street	1,402	0.063	13.9	123.0	0.0625	14.2	124.0	0.000	-0.3	-1											
5/13/2024	45425.42847	20	north	7526 S. 51st Street	1,699	0.055	14.3	119.0																	
5/13/2024	45425.42847	20	north	SE of Quarry	2,399	0.055	12.8	113.0																	
5/30/2024	45442.52431	21	south	5800 ALLWOOD	2,326	0.028	15.6	109.0	-	-	-	-	-	-	no										
5/30/2024	45442.52083	21	south	7301 S 51st Street	2,169	N/T	N/T	N/A	-	-	-	-	-	-											
5/30/2024	45442.52431	21	south	7526 S. 51st Street	1,207	0.183	25	107.0																	
5/30/2024	45442.52431	21	south	SE of Quarry	1,000	0.143	22.7	108.0																	
6/6/2024	45449.42986	22	north	5800 ALLWOOD	3,794	0.028	9.4	113.0	-	-	-	-	-	-	no										
6/6/2024	45449.42986	22	north	7301 S 51st Street	1,400	0.145	20.8	125.0	0.113	17.0	126.8	0.033	3.8	-2											
6/6/2024	45449.42986	22	north	7526 S. 51st Street	1,897	0.095	18.5	124.0																	
6/6/2024	45449.42986	22	north	SE of Quarry	2,654	0.078	13.9	118.0																	
6/10/2024	45453.42708	23	north	5800 ALLWOOD	3,891	N/T	N/T	N/A	-	-	-	-	-	-	no										
6/10/2024	45453.42431	23	north	7301 S 51st Street	734	0.308	50	114.0	0.243	46.5	114.6	0.065	3.5	-1											
6/10/2024	45453.42431	23	north	7526 S. 51st Street	1,280	0.168	20	113.0																	
6/10/2024	45453.42431	23	north	SE of Quarry	2,269	0.048	20.8	113.0																	

Payne & Dolan Blast Monitoring Data									Stantec Blast Monitoring Data			Comparison of P&D and Stantec Monitoring Data			Complaint Information			Weather (for complaints only)								
Date	Time	Activity Number	General Quarry Blast Location	Monitor Location	Distance (feet)	PPV (in/sec)	Freq (Hz)	AO (dB)	PPV (in/sec)	Freq (Hz)	AO (dB)	Difference in PPV Values	Difference in Freq Values	Difference in AO dB Values	Complaints?	#	Primary direction of complaints (from quarry)	Wind Direction	Wind Speed (mph)	Wind Gusts (mph)	Press-ure (in)	Humi-dity (%)	Condi-tions	Precip-itation	Temp. (°F)	
6/10/2024	45453.57639	24	north	5800 ALLWOOD	3,937	N/T	N/T	N/A	-	-	-	-	-	-	no											
6/10/2024	45453.57153	24	north	7301 S 51st Street	826	0.225	29.4	108.0	0.148	26.9	109.9	0.078	2.5	-2												
6/10/2024	45453.57153	24	north	7526 S. 51st Street	1,453	0.083	29.4	112.0																		
6/10/2024	45453.57153	24	north	SE of Quarry	2,409	0.025	15.2	111.0																		
6/12/2024	45455.54167	25	north	5800 ALLWOOD	3,906	N/T	N/T	N/A	-	-	-	-	-	-	no											
6/12/2024	45455.54514	25	north	7301 S 51st Street	1,311	0.023	41.7	114.0	-	-	-	-	-	-												
6/12/2024	45455.54167	25	north	7526 S. 51st Street	1,899	N/T	N/T	N/A																		
6/12/2024	45455.54167	25	north	SE of Quarry	2,706	N/T	N/T	N/A																		
6/14/2024	45457.53681	26	south	5800 ALLWOOD	2,502	0.050	8.2	112.0	0.0500	8.9	97.5	0.050	-0.7	112	no											
6/14/2024	45457.53681	26	south	7301 S 51st Street	1,994	0.088	13.9	109.0	0.085	15.5	109.9	0.002	-1.6	-1												
6/14/2024	45457.53681	26	south	7526 S. 51st Street	1056	0.475	26.3	112.0																		
6/14/2024	45457.53681	26	south	SE of Quarry	1,028	0.278	19.2	109.0																		
6/20/2024	45463.40417	27	south	5800 ALLWOOD	2,489	0.030	22.7	112.0	0.038	22.2	95.9	-0.008	0.5	16	yes	2	south & confidential	N	12	none	29.56	90	cloudy	0	63	
6/20/2024	45463.40417	27	south	7301 S 51st Street	2,020	0.053	45.5	105.0	0.0425	30.1	106.0	0.010	15.4	-1												
6/20/2024	45463.40417	27	south	7526 S. 51st Street	1028	0.273	31.3	111.0																		
6/20/2024	45463.40417	27	south	SE of Quarry	950	0.173	20	108.0																		
6/26/2024	45469.48958	28	south	5800 ALLWOOD	2,445	0.033	27.8	108.0	-	-	-	-	-	-	yes	2	south & confidential	NW	8	18	29.06	47	partly cloudy	0	82	
6/26/2024	45469.48958	28	south	7301 S 51st Street	2,091	0.033	20.8	106.0	-	-	-	-	-													
6/26/2024	45469.48958	28	south	7526 S. 51st Street	1,024	0.143	21.7	111.0																		
6/26/2024	45469.48958	28	south	SE of Quarry	826	0.133	31.3	110.0																		
6/27/2024	45470.49653	29	north	5800 ALLWOOD	3,682	0.028	23.8	110.0	-	-	-	-	-	-	yes	1	confidential	ENE	6	none	29.29	51	partly cloudy	1	67	
6/27/2024	45470.49653	29	north	7301 S 51st Street	1495	0.100	38.5	119.0	0.093	30.1	120.4	0.008	8.4	-1												
6/27/2024	45470.49653	29	north	7526 S. 51st Street	1,904	0.110	18.5	119.0																		
6/27/2024	45470.49653	29	north	SE of Quarry	2,607	0.075	13.5	110.0																		

Totals **17** **blast events**

north

4 **6** **events with complaints / total complaints**

Notes: Shaded cells do not have a meter in that location
 N/D = not detected, meter did not detect blast
 complaints was an informal

FIGURE 1

SEISMIC MONITORING, BLASTING, AND COMPLAINT LOCATIONS, 2nd QUARTER 2024

V:\1937\Active\19370943303_data\gis_cad\fig\mxd\2024_2nd_Quarter_Report\fig1_Seismic_Complaints_193707487.mxd Revised: 2024-07-09 By: aswain

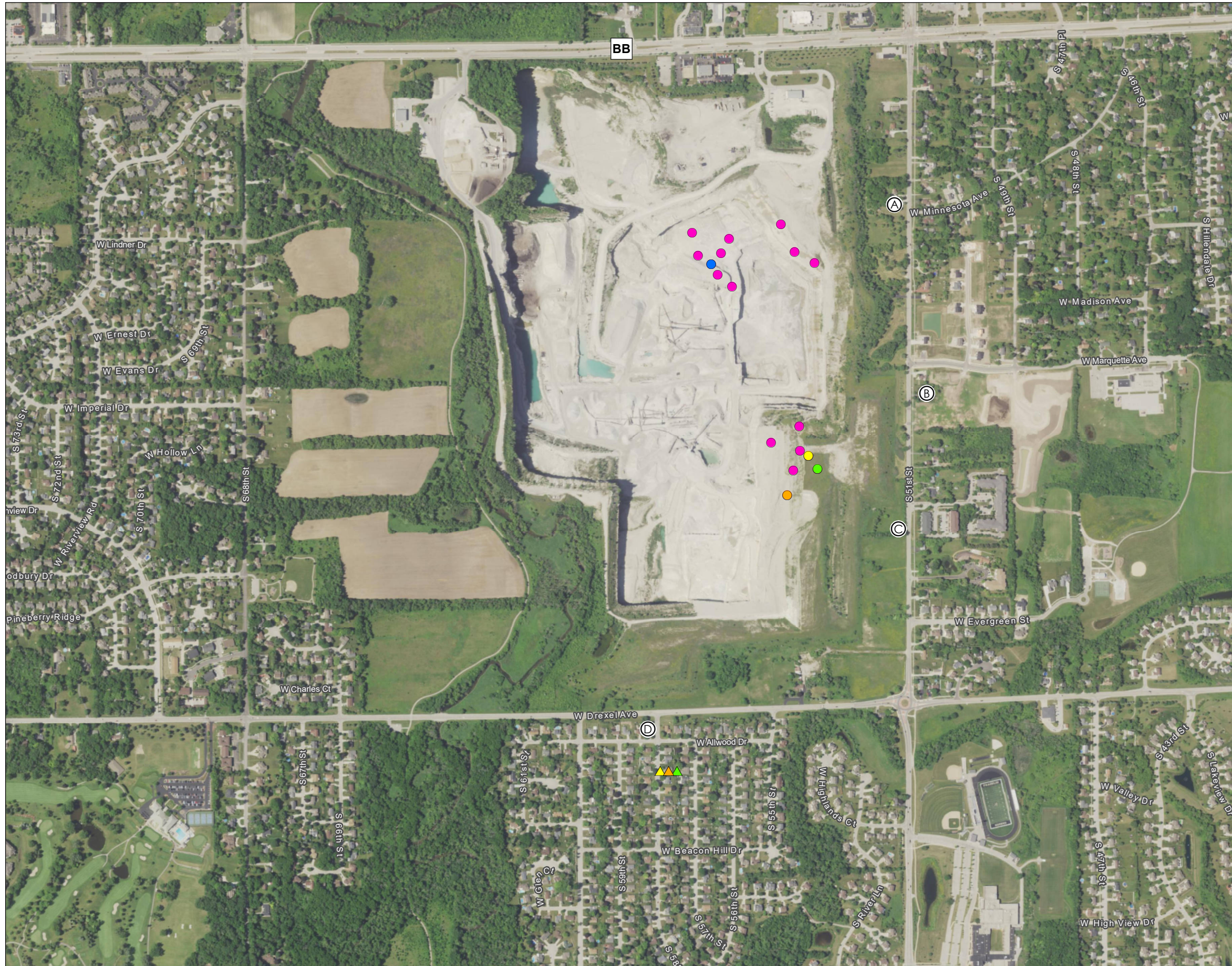


Figure No.

1

Title

Seismic Monitoring, Blasting, and Complaint Locations - 2nd Quarter 2024

Client/Project
City of Franklin
Vicinity of Payne and Dolan Quarry

193710393

Project Location
C. of Franklin, Milwaukee Co., WI

Prepared by AJS on 2024-07-09
TR by DG on 2024-07-09
IR by KGI on 2024-07-09



0 400 800 Feet
(At original document size of 11x17)
1:9,600

Legend

Seismic Monitoring Location

- (A) Vibra-Tech(VT1) and Stantec(S1)
- (B) Vibra-Tech(VT2)
- (C) Vibra-Tech(VT3)
- (D) Vibra-Tech(VT4) and Stantec(S2)

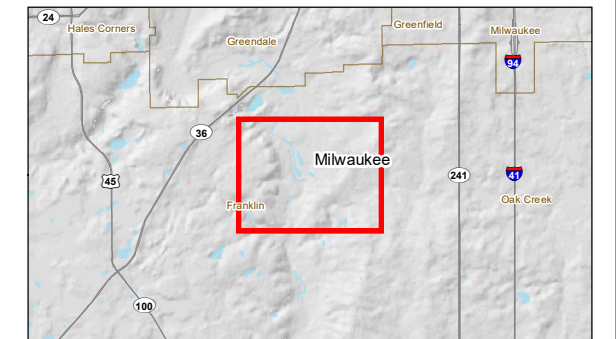
Blast Location

- Non-complaint Blast Location
- Blast #19
- Blast #27*
- Blast #28*
- Blast #29*

Blast Complaint

- ▲ Blast #19
- ▲ Blast #27
- ▲ Blast #28

*1 Confidential complaint was received on Blast #27, #28, and #29 (No address location)



Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources: Stantec, SCO, WDNR, WisDOT
3. Orthophotography: 2022 NAIP



Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
April 2024

Time	Activity	Location	Distance	PPV	Freq	AO
4/30/2024 10:58	17	5800 ALLWOOD	3,933	N/T	N/T	N/A
4/30/2024 10:58	17	7526 S. 51st Street	2,185	0.145	25	110
4/30/2024 10:58	17	SE of Quarry	2,921	0.1075	20.8	110
4/30/2024 10:58	17	7301 S 51st Street	1,607	0.045	14.3	112
4/18/2024 13:24	16	5800 ALLWOOD	2,651	0.0225	20.8	111
4/18/2024 13:24	16	7526 S. 51st Street	1,008	0.1775	20.8	116
4/18/2024 13:24	16	SE of Quarry	1,177	0.095	20	116
4/18/2024 13:24	16	7301 S 51st Street	1,837	0.04	41.7	111
4/16/2024 9:45	15	5800 ALLWOOD	3,767	N/T	N/T	N/A
4/16/2024 9:45	15	7526 S. 51st Street	2,052	N/T	N/T	N/A
4/16/2024 9:45	15	SE of Quarry	2,752	N/T	N/T	N/A
4/16/2024 9:45	15	7301 S 51st Street	1,583	N/T	N/T	N/A
4/9/2024 8:39	14	5800 ALLWOOD	2,442	N/T	N/T	N/A
4/9/2024 8:39	14	7526 S. 51st Street	1,265	0.065	19.2	112
4/9/2024 8:39	14	SE of Quarry	1,258	0.045	12.8	105
4/9/2024 8:39	14	7301 S 51st Street	2,051	N/T	N/T	N/A
4/8/2024 11:32	13	5800 ALLWOOD	4,116	N/T	N/T	N/A
4/8/2024 11:32	13	7526 S. 51st Street	1,700	0.0625	13.2	114
4/8/2024 11:32	13	SE of Quarry	2,658	0.0325	19.2	103
4/8/2024 11:32	13	7301 S 51st Street	900	0.1675	38.5	112

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).

Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
May 2024

Time	Activity	Location	Distance	PPV	Freq	AO
5/30/2024 12:35	21	5800 ALLWOOD	2,326	0.0275	15.6	109
5/30/2024 12:35	21	7526 S. 51st Street	1,207	0.1825	25	107
5/30/2024 12:35	21	SE of Quarry	1,000	0.1425	22.7	108
5/30/2024 12:35	21	7301 S 51st Street	2,169	N/T	N/T	N/A
5/13/2024 10:17	20	5800 ALLWOOD	3,558	0.02	7.8	105
5/13/2024 10:17	20	7526 S. 51st Street	1,699	0.055	14.3	119
5/13/2024 10:17	20	SE of Quarry	2,399	0.055	12.8	113
5/13/2024 10:17	20	7301 S 51st Street	1,402	0.0625	13.9	123
5/10/2024 10:06	19	5800 ALLWOOD	2,125	0.025	13.9	109
5/10/2024 10:06	19	7526 S. 51st Street	1,365	0.19	33.3	111
5/10/2024 10:06	19	SE of Quarry	948	0.125	17.9	110
5/10/2024 10:06	19	7301 S 51st Street	2,376	0.0375	16.7	114
5/6/2024 11:09	18	5800 ALLWOOD	3,639	0.025	10	108
5/6/2024 11:09	18	7526 S. 51st Street	1,840	0.0875	7.6	117
5/6/2024 11:09	18	SE of Quarry	2,540	0.0375	11.1	112
5/6/2024 11:09	18	7301 S 51st Street	1,466	0.07	31.3	119

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch.ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).

Franklin Aggregates
Recorded Ground Vibration and Airblast Levels for PDDs #23 & 24
June 2024

Time	Activity	Location	Distance	PPV	Freq	AO
6/27/2024 11:55	29	5800 ALLWOOD	3,682	0.0275	23.8	110
6/27/2024 11:55	29	7526 S. 51st Street	1,904	0.11	18.5	119
6/27/2024 11:55	29	SE of Quarry	2,607	0.075	13.5	110
6/27/2024 11:55	29	7301 S 51st Street	1,495	0.1	38.5	119
6/26/2024 11:45	28	5800 ALLWOOD	2,445	0.0325	27.8	108
6/26/2024 11:45	28	7526 S. 51st Street	1,024	0.1425	21.7	111
6/26/2024 11:45	28	SE of Quarry	826	0.1325	31.3	110
6/26/2024 11:45	28	7301 S 51st Street	2,091	0.0325	20.8	106
6/20/2024 9:42	27	5800 ALLWOOD	2,489	0.03	22.7	112
6/20/2024 9:42	27	7526 S. 51st Street	1,028	0.2725	31.3	111
6/20/2024 9:42	27	SE of Quarry	950	0.1725	20	108
6/20/2024 9:42	27	7301 S 51st Street	2,020	0.0525	45.5	105
6/14/2024 12:53	26	5800 ALLWOOD	2,502	0.05	8.2	112
6/14/2024 12:53	26	7526 S. 51st Street	1,056	0.475	26.3	112
6/14/2024 12:53	26	SE of Quarry	1,028	0.2775	19.2	109
6/14/2024 12:53	26	7301 S 51st Street	1,994	0.0875	13.9	109
6/12/2024 13:05	25	5800 ALLWOOD	3,906	N/T	N/T	N/A
6/12/2024 13:05	25	7526 S. 51st Street	1,899	N/T	N/T	N/A
6/12/2024 13:05	25	SE of Quarry	2,706	N/T	N/T	N/A
6/12/2024 13:05	25	7301 S 51st Street	1,311	0.0225	41.7	114
6/10/2024 13:43	24	5800 ALLWOOD	3,937	N/T	N/T	N/A
6/10/2024 13:43	24	7526 S. 51st Street	1,453	0.0825	29.4	112
6/10/2024 13:43	24	SE of Quarry	2,409	0.025	15.2	111
6/10/2024 13:43	24	7301 S 51st Street	826	0.225	29.4	108
6/10/2024 10:11	23	5800 ALLWOOD	3,891	N/T	N/T	N/A
6/10/2024 10:11	23	7526 S. 51st Street	1,280	0.1675	20	113
6/10/2024 10:11	23	SE of Quarry	2,269	0.0475	20.8	113
6/10/2024 10:11	23	7301 S 51st Street	734	0.3075	50	114
6/6/2024 10:19	22	5800 ALLWOOD	3,794	0.0275	9.4	113
6/6/2024 10:19	22	7526 S. 51st Street	1,897	0.095	18.5	124
6/6/2024 10:19	22	SE of Quarry	2,654	0.0775	13.9	118
6/6/2024 10:19	22	7301 S 51st Street	1,400	0.145	20.8	125

PDD Vibration Limit - Per the PDD #23 and #24 Ordinances, ground vibration resulting from P&D blasting shall not exceed 0.30 inches per second on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the ground vibration limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in Figure 7.64 of ch. ILHR 7, Wis. Adm. Code (new reference now Wis. Adm. Code, Safety and Professional Services Chapter 307), or 0.65 inches per second, whichever is more restrictive, on any blast.

PDD Airblast Limit - Per the PDD #23 and #24 Ordinances, airblast resulting from P&D blasting shall not exceed 123 dB on at least 85% of its blasts within any single calendar year. The Operator shall not exceed the airblast limitation imposed by the Wisconsin Department of Industry, Labor and Human Relations in ch. ILHR 7, Wis. Adm. Code on any blast (new reference now Wis. Adm. Code, Safety and Professional Services [SPS] Chapter 307).