

**CITY OF GARDEN RIDGE, TEXAS  
ORDINANCE 34-082012**

AN ORDINANCE OF THE CITY OF GARDEN RIDGE TEXAS PROHIBITING BLASTING, WITHIN THE CITY LIMITS; PROVIDING FOR LIMITED EXEMPTION PERMIT; ESTABLISHING REGULATIONS PERTAINING TO BLASTING; ESTABLISHING CRIMINAL AND CIVIL PENALTIES FOR VIOLATIONS; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE; PROVIDING FOR SEVERABILITY; INCLUDING A REPEALER CLAUSE; AND DECLARING AN EFFECTIVE DATE

**WHEREAS**, the City Council finds it created the Quarry Commission of the City of Garden Ridge, Texas (hereafter the "Quarry Commission") to study and report on the operation of Excavation sites, Surface Mining Operations, and Blasting within and adjacent to the City of Garden Ridge, Texas;

**WHEREAS**, the City Council finds the Regulatory Authority, through its Quarry Commission has extensively studied Excavation sites, Surface Mining Operations, and Blasting both generally and within and adjacent to the City of Garden Ridge and the related impact Excavation sites, Surface Mining Operations and Blasting has on property value, development, the economy, employment, property taxes and the public and communities who live and work adjacent to such operations;

**WHEREAS**, the City Council finds the Regulatory Authority, through the Quarry Commission has received substantial local citizen input, substantial industry input, and has obtained advice and counsel from professional consultants in the industries related to and supporting Excavation sites, Surface Mining Operations, and Blasting, and its Quarry Commission developed recommendations presented to the City Council in the form of a local ordinance;

**WHEREAS**, the City Council finds the Regulatory Authority, through its Quarry Commission held numerous public meetings, sought input from professionals in the industry and the community, and considered all the information provided and available to the Regulatory Authority, including historical information related to operation and impact of Excavation sites, Surface Mining Operations, and Blasting (including but not limited to the achievable level of performance for Blasting activities) over the last several years, and after significant, complex and detailed deliberations, has formulated and presented information demonstrating that the impacts from non-permitted Blasting, particularly Air Blast and ground vibration (as measured by Peak Particle Velocity) are a public nuisance and there is a need for the City Council to pass this Ordinance, exercising its general police power and powers to control nuisances to protect and preserve the health, safety and general welfare of the public in connection with Excavation sites, Surface Mining Operations and Blasting;

**WHEREAS**, the City Council recognizes the related value of Excavation sites, Surface Mining Operations, and the ability to use Blasting techniques in certain development, demolition, and/or commercial activities;

**WHEREAS**, the City Council finds this Ordinance is enacted to address the need to reasonably balance the Regulatory Authority's obligations of protecting property interests and public safety of all impacted by Blasting in the operation of Excavation sites, Surface Mining Operations and the use of Blasting techniques in certain development, demolition and generally within the Municipal Limits, with the rights of the public to expect and receive protection of their property values, their property, public safety, health & welfare interests, environmental concerns with respect to particulate air quality (dust), water quality and quarry operational noise, including the quality of life within the City of Garden Ridge, Texas;

**WHEREAS**, the City Council finds the Quarry Commission presented comment for a proposed ordinance to the Planning & Zoning Commission to consider the land use elements of its recommendations to prohibit quarry operations that result in negative secondary impact on citizens' land use and to amend the Regulatory Authority's Zoning regulations;

**WHEREAS**, the City Council finds the Regulatory Authority conducted all necessary public hearings and all other acts necessary and has met all conditions precedent to the adoption and enforcement of this Ordinance, including publication upon its passage;

**WHEREAS**, the City Council finds that Excavation sites, Surface Mining Operations, and Blasting (including not only the use of Blasting for exploration and/or production and removal of Minerals, but for other development and construction related uses within the Municipal Limits) should be generally prohibited within the Municipal Limits, and only permitted otherwise under limited circumstances to be regulated by this Ordinance;

**WHEREAS**, the City Council finds and adopts the attached Blasting data demonstrates and supports the Blasting regulations set forth in this Ordinance and do not infringe on the rights of and/or improperly infringe upon any land use, or unreasonably interfere with any reasonable investment backed expectations of existing property owners regulated by this Ordinance. (See Attachment A – Blasting Data)

**WHEREAS**, the City Council finds the City of Garden Ridge, Texas possesses the police power of the state, which is delegated to cities by law, and hereby invokes such power to aid in the enforcement and the adoption this Ordinance.

**WHEREAS**, the City Council finds that this Ordinance, when considered by any City Commission and the City Council has done so in full and complete compliance with the Texas Open Meetings Act at properly posted and conducted public meetings.

**NOW THEREFORE, BE IT ORDAINED BY THE CITY OF GARDEN RIDGE, TEXAS:**

**SECTION 1: CITY OF GARDEN RIDGE, ORDINANCE 34:**

The City Council hereby revokes and repeals in its entirety the now existing Ordinance 34, and replaces it by the adoption of the regulations contained in this Ordinance which is effective upon adoption.

**SECTION 2: DEFINITIONS**

All technical industry words or phrases related to Excavation sites, Surface Mining Operations, and Blasting not specifically defined in this Ordinance shall have the meanings customarily attributable thereto by prudent and reasonable persons in the field of Excavation, Surface Mining and Blasting unless otherwise provided in this Ordinance. The following words, terms, and phrases, when used in this Ordinance, shall have the meanings ascribed to them in this section.

**Air Overpressure or Air Blast**<sup>1</sup> is the airborne shock wave or acoustic transient generated by an explosion. As this air wave (measured in decibels (dBL)) contacts structures, it causes walls to vibrate.

**Blasting**<sup>1</sup> shall mean the firing of any Explosive Material that generates seismic waves and/or Air Blast. It does not include or apply to those explosives generally referred to as “fireworks”, which is governed under a separate ordinance.

**City Council** means the City Council of the City of Garden Ridge, Texas comprised of the five council members and the Mayor, unless contrary to Texas law.

**City Hall** means 9400 Municipal Parkway, Garden Ridge, Texas 78266.

**Decibel** shall mean a unit of sound pressure commonly used to measure Air Blast from explosives.

**Excavation** means the act of digging, mining or otherwise removing Minerals. This term does not include site grading or other site development activity that has been reviewed and/or authorized by the City of Garden Ridge; or site preparation activities on land that is the subject of a then applicable development permit or agreement with the City of Garden Ridge.

**Explosive Material**<sup>1</sup> is a term which includes, but is not necessarily limited to, dynamite and other high explosives, slurries, water gels, emulsions, blasting agents, black powder, pellet powder, initiating explosives, or any other similar Blasting materials used in Excavation activities, as well as any detonators, safety fuses, squibs, detonating cord, igniter cord, and igniters.

---

<sup>1</sup> See generally ISEE (International Society of Explosive Engineers), Blasters Handbook 18<sup>th</sup> Edition 2011.

**Flyrock** means the fragments of rock thrown and scattered during quarry blasting.

**Frequency** refers to how many waves occur within a second, which is measured in Hertz.

**Hertz** is a term used to express the frequency of ground vibrations and Air Blast; one hertz is one cycle per second.

**Minerals** shall mean shall include coal, lignite, uranium, clay, sand, hard rock, soil or other substances of value (commercial or otherwise), from natural deposits on or in the earth.

**Municipal Limits** means the municipal limits of the City of Garden Ridge, Texas.

## **NOISE**

**Noise** shall mean any undesired sound, especially a statistically random and persistent disturbance that provokes strong discomfort on the part of those people experiencing the noise.

**Noise Level** is the weighted sound pressure level called sound level.

**dBA** is the term used to measure noise and involves quantifying both the rate (frequency in Hz) and intensity (pressure) relative to normal atmospheric pressure. People do not perceive all frequencies with same sensitivity and are more responsive to higher frequencies. A dBA sound level measurement weighs the various frequency components of sound as perceived by the human ear in order to yield a single number indicator of its relative intensity.

**Partial Exemption Permit** means a permit issued from the Regulatory Authority, for a single event or for continuing operations, for a maximum term of twelve (12) months, or that remaining to the end of the Regulatory Authority's Fiscal Year, to be renewed annually from fiscal year to fiscal year, permitting a person to conduct Blasting activities otherwise prohibited by this Ordinance.

**Peak Particle Velocity (PPV)**<sup>1</sup> the measure of the intensity of ground vibration, specifically the velocity of motion of the ground particles as they are excited by the wave energy.

**Permit Holder** means any Person that has obtained a Partial Exemption Permit from the Regulatory Authority.

**Person** means any individual, corporation, partnership, joint venture, trust, unincorporated association or other entity or any other judicial entity or government, state or agency or political sub-division thereof.

**Regulatory Authority** shall mean the City of Garden Ridge, Texas.

**Surface Mining** means the mining of Minerals by Excavation or other commercial removal of the overburden lying above the natural deposit of Minerals and mining directly from the natural deposits that are exposed and those aspects of underground mining having significant effects on the surface.

**Surface Mining Operation** means those Surface Mining activities conducted at or near an Excavation site and concomitant with Surface Mining including extraction, storage, processing and shipping of minerals and reclamation of the land affected.

### **SECTION 3: BLASTING PROHIBITED.**

All non-permitted Blasting within the Municipal Limits is a public nuisance and is prohibited.

Any violation of any state or federal law, rule or regulation related to Blasting now in effect or in effect at the time of the violation is additionally prohibited by this Ordinance.

### **SECTION 4: SCOPE AND APPLICABILITY:**

1. Nothing contained herein is intended to, nor shall it be interpreted to mean, that future action of the Regulatory Authority is in any manner regulated, affected or constrained through the terms of this Ordinance; rather, all Regulatory Authority operations are specifically exempted from the provision of this Ordinance.

### **SECTION 5: PARTIAL EXEMPTION PERMITS - BLASTING**

The City Council may, by the issuance of a Partial Exemption Permit to the owner of property or his designee seeking a Partial Exemption Permit, allow the person to engage in an activity contrary to the prohibitions contained in this Ordinance upon a finding of the following conditions:

1. Partial Exemption Permits may be issued for Blasting. Such permits may be issued by the City Council upon the finding of a complete application for a Partial Exemption Permit to conduct Blasting within the Municipal Limits as provided by this Ordinance. All applications for Partial Exemption Permits must be in the form as provided in Attachment B.
2. The City Council shall evaluate all information pertinent to the Partial Exemption Permit request exercising reasonable discretion to ensure the aspects contained in the findings of this Ordinance are adequately being remediated by the applicant. If the City Council finds inadequate remediation, it may deny the application or move to authorize the City to mediate with the applicant before taking final action on the application. The City Council will endeavor to make a determination with

regard to the Partial Exemption Permit within sixty (60) days of the receipt of the administratively complete petition. The decision of the City Council is final and not subject to appeal.

3. Any Partial Exemption Permit otherwise approved by the City Council is not valid unless any and all conditions are met and all fees, including any payments for third party monitoring pursuant to Section 6(1)(h), are paid in full.
4. Blasting with a Partial Exemption Permit must be conducted pursuant to the limitations and conditions provided for such Blasting in this Ordinance.
5. All quarry blasting and surface mining operations are to be in strict compliance with any and all local, state and federal regulations and permits with respect to environment including air quality, water quality and noise pollution.

#### **SECTION 6: REGULATIONS ON BLASTING WITH PERMIT**

1. All Blasting activity conducted by Partial Exemption Permit shall comply with the following regulations:
  - a) **Distance Requirements** - No blasting shall occur from either a distance of 500 feet from the nearest adjacent property line or the berm contour (for quarry operations) on the subject property from the nearest adjacent property line, whichever distance is greater unless the owner of the affected real property(s) issues written permission, which must be filed with the Regulatory Authority prior to the Blasting taking place, or the Permit Holder complies with Section 6(1)(c)(ii) and Section 6(1)(d)(ii). See Attachment D for berm contour coordinates.
  - b) **Timing** - No Blasting shall occur on Saturdays, Sundays and legal holidays. Blasting operations shall only occur between the hours of 9:00 a.m. and 4:30 p.m. Monday through Friday. The Permit Holder shall notify the Regulatory Authority, or its designee, at least 10 minutes prior to and after each Blast. In the case of circumstances resulting in a potential danger to public safety requiring the detonation of explosives outside this time period, notification and approval of the detonation outside this time limitation may be obtained from either the Chief of Police or City Administrator of the City of Garden Ridge, Texas. Each request and determination made shall be reported to the Quarry Commission.
  - c) **Air Blast Limit** –
    - i. Air Blast shall not exceed 122dB as recorded by any monitor designated by the Regulatory Authority.
    - ii. If written permission from the affected property owner(s) is not obtained pursuant to Section 6(1)(a), a Permit Holder may either

(i) request a variance to the minimum distance requirement from the Regulatory Authority or (ii) Air Blast shall not exceed 110dB as recorded by any monitor designated by the Regulatory Authority.

d) **Ground Vibration Limit** –

- i. Ground vibration shall not exceed the frequency based PPV limit of 70% of the USBM Z-Curve (Plaster) as recorded by any monitor designated by the Regulatory Authority. See Attachment C.
- ii. If written permission from the affected property owner(s) is not obtained pursuant to Section 6(1)(a), a Permit Holder may either (i) request a variance to the minimum distance requirement from the Regulatory Authority or (ii) Ground vibration shall not exceed the frequency based PPV limit of 40% of the USBM Z-Curve as recorded by any monitor designated by the Regulatory Authority. See Attachment C.

e) **Air Particulate Limit** – Air Particulates shall not exceed the lowest permissible limits as identified in any required state or federal permits obtained by the Permit Holder or its blaster. A copy of all such permits shall be filed with the Regulatory Authority upon any new or renewal application for Partial Exemption Permit(s).

f) **Noise Limit** – Noise shall not exceed 85 dBA. Noise in excess of 85 dBA, when monitored at the designated property line or a residence, shall constitute a noise level that is deemed reasonably calculated to disturb the peace and unreasonably offensive to the public. This noise limit does not apply to Air Blast.

g) **Flyrock control** – Flyrock traveling in the air or along the ground shall not be cast from the Blasting site beyond the area under the control of the operator.

h) **Third-Party Monitoring** – all Blasting shall be monitored by a third-party selected by the Regulatory Authority and paid for by the Permit Holder to accumulate data with respect to the seismographic, frequency and Air Blast effects of said Blasting activities. Additionally in order to monitor environmental effects of blasting and surface mining operations with respect to particulate air quality and operational noise, monitor(s) may be utilized at designated locations to take air samples and record noise levels during Permit Holder's operations.

- i. Single event blasting operations, such as pool excavations or basement excavations may be monitored at the discretion of the third-party consultant retained by the Regulatory Authority.
- ii. Any Blasting operations taking place beyond single events shall be regularly monitored and such monitoring shall be performed at a minimum of three and maximum of six different locations.

Additionally one noise monitor and one air particulate monitor may be utilized at designated locations. While the location of all monitoring devices will remain at the discretion of the Regulatory Authority, the Regulatory Authority, or its designee, will seek to recover, at least on a monthly basis, all data obtained from other than single event monitoring locations. In all cases, one of the monitoring locations shall be at the closest permissible real property line from each blast site.

1. A seismographic record including both particle velocity and vibration-frequency levels shall be maintained for each blast.
  2. Seismographs shall be self-triggering and capable of recording three mutually perpendicular components of ground motion time histories, in terms of velocity. Additionally, the units shall be capable of recording Air Blast levels and reporting the frequency as well as peak values for all vibration time histories.
  3. Seismographic units shall be calibrated annually to ensure the units are operating within the specifications.
  4. Air particulate monitor(s) shall be able to sample air on a continuous or intermittent basis and record air particulate size consistent with quarry operational air permitting requirements. Records documenting air quality compliance shall be made available to the Regulatory Authority upon request or upon application for renewal of Partial Exemption Permit(s). Permit Holders shall demonstrate compliance with air quality requirements.
  5. Noise monitor(s) shall be capable of monitoring and recording on a continuous or intermittent basis any noise level in excess of 80 dBA.
- iii. All monitoring data obtained by monitoring devices used to monitor Quarry Operations including Blasting Activities and environmental effects shall be posted for public inspection at City Hall and shall be available for inspection by the public. Data will be provided on a monthly basis and shall be posted at City Hall (if available electronic posting on the Regulatory Authority's internet site will satisfy this posting requirement.)
- i) **Proof of Insurance** – Permit Holder shall have in effect \$10,000,000 of insurance insuring against any loss or damage suffered by a third-party and shall provide to the Regulatory Authority all information necessary in order to verify insurance and that would allow a person to file a claim. The Regulatory Authority shall make the information available to any person wishing to file a claim.

- j) **Annual Fee** – Any Partial Exemption Permit issued is automatically revoked for lack of payment of the required fee, or for failure to comply with this section, including without limitation any required payments for third party monitoring pursuant to Section 6(1)(h). If the initial fee is not paid by the date the Partial Exemption Permit is issued and any subsequent renewal fee is not paid by the date of any subsequent renewal such revocation is automatic. If it is for the failure to comply with another provision of this section, a Permit Holder may obtain a 30 day extension upon request for Action at the next City Council meeting to discuss violation and request exemption from the revocation provision. If Permit Holder’s Partial Exemption Permit expires, there is no refund of any fee paid and the Permit Holder must re-apply for a new Partial Exemption Permit should they wish to continue or resume Blasting activities within the Municipal Limits.
- k) **Inspection of Records** – as a condition of the Partial Exemption Permit, any Permit Holder shall allow the Regulatory Authority’s designees to observe all Blasting activity to ensure compliance with this Ordinance and shall make all business records available for inspection to the Regulatory Authority, to the extent necessary to ensure compliance and enforcement of this Ordinance. Any request for records shall be fulfilled within 7 days of request. Failure to provide such access and/or inspection or records constitutes a voluntary surrender of any such Partial Exemption Permit effective upon the failure by the Permit Holder.
- l) Any real property owner who permits Blasting activities on their property in violation of this Ordinance violates this Ordinance and is held jointly and severally responsible for any such civil or criminal penalty, cost or fee, including attorney’s fees expended in the pursuit of enforcing this Ordinance.

## **SECTION 7: ENFORCEMENT & INSPECTION**

- 1. This Ordinance shall be enforced by the Regulatory Authority and its designated agencies or representatives through all means available by law.
- 2. The criminal provisions of this ordinance are abated until publication as required by law.

## **SECTION 8: PENALTIES**

- 1. Violation of any provision of this Ordinance is a Class C misdemeanor and upon conviction shall be punished by a fine of \$500 per occurrence pursuant to Texas Local Government Code §54.001(a).
- 2. Violation of any provision of this Ordinance that affects fire safety, zoning or public health and sanitation, including dumping of refuse shall be subject to a fine

of \$2,000 upon conviction pursuant to Texas Local Government Code §54.001(b). Additional remedies and civil penalties may all be sought and assessed.

3. In the event any Permit Holder exceeds either the Air Blast or Ground Vibration limits set forth in Section 6(1)(c) and Section 6(1)(d) as recorded by any monitor designated by the Regulatory Authority (an "Excess Event"), three (3) times or more in any consecutive twelve (12) month period, such Permit Holder's Partial Exemption Permit(s) shall be automatically suspended as follows:
  - a. Seven (7) calendar days immediately after the third Excess Event;
  - b. Fourteen (14) calendar days immediately after the fourth Excess Event;
  - c. Twenty one (21) calendar days immediately after the fifth Excess Event;
  - d. Twenty eight (28) calendar days immediately after the sixth Excess Event and any subsequent Excess Events;

Permit Holder shall be issued a written suspension notice by the Regulatory Authority, which shall set forth each Excess Event during a consecutive twelve (12) month period and the applicable suspension period. Permit Holder's failure to comply with the suspension notice constitutes a voluntary surrender of any such Partial Exemption Permit effective upon the failure by the Permit Holder. In the event any Permit Holder has six or more Excess Events in any consecutive twelve (12) month period, the Regulatory Authority may seek to revoke a Partial Exemption Permit pursuant to Section 8(8). Any suspension of any Partial Exemption Permit is subject to Texas Local Government Code Chapter 54.003 proceedings.

4. Each section of this Ordinance violated constitutes a separate violation and each day a violation occurs is a separate violation.
5. The Regulatory Authority may immediately seek additional remedies at law, or in equity, to prevent or remedy a violation of this Ordinance.
6. Concurrent with any criminal prosecution, the Regulatory Authority may for any violation of this Ordinance, seek up to \$1,000 per day as a civil penalty for any violation of this Ordinance in addition to declaratory and injunctive relief in an action to enforce this Ordinance pursuant to Texas Local Government Code Chapter 54, as amended.
7. The Regulatory Authority may immediately seek additional remedies at law, or in equity, to prevent Blasting by any party who does not have a Partial Exemption Permit or is to blast in violation of this Ordinance.
8. The Regulatory Authority may revoke a Partial Exemption Permit where the Permit Holder has demonstrated a pattern of intentional or repeated non-administrative violations of this Ordinance. Any suspension of any Partial

Exemption Permit is subject to Texas Local Government Code Chapter 54.003 proceedings.

#### **SECTION 9: SEVERABILITY**

The provisions of this Ordinance are declared to be severable. If any section, sentence, clause, or phrase of the Ordinance shall for any reason be held to be invalid or unconstitutional by a court of competent jurisdiction, such decisions shall not affect the validity of the remaining sections, sentences, clauses, and phrases of this Ordinance, but they shall remain in effect; it being the legislative intent that this Ordinance shall remain in effect notwithstanding the validity of any part. In the event that changes are made to Texas Health & Safety Code §§ 342 or 343, or Texas Transportation Code § 683, the provisions of state law will govern in the event of a conflict.

#### **SECTION 10: INTERIM COMPLIANCE PROCEDURES**

This interim compliance procedure provision shall be effective for 90 days from adoption of this ordinance, at which time it shall expire. During this interim period, any permit issued under the prior Ordinance 34 shall remain in effect so long as the Permit Holder is attempting to come into compliance with this Ordinance; however, any blasting activity must be conducted in compliance with this Ordinance. Any pending blasting application submitted before the adoption of this ordinance may be approved by the City Administrator provided the application and its content is in substantial compliance with the applicable provisions of this Ordinance. Any such interim approval shall expire upon the expiration of this 60 day interim period and is not subject to extension.

#### **SECTION 11: NOTICE**

The City Secretary for the City of Garden Ridge, Texas is hereby directed to publish notice of this Ordinance as required by the laws of the State of Texas.

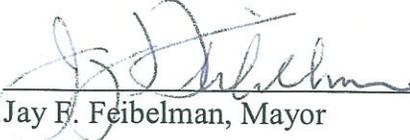
#### **SECTION 12: FEES**

All fees assessed in this Ordinance shall be determined by amending Ordinance No. 11 which is the Regulatory Authority's Fees ordinance and are subject to change without prior notice.

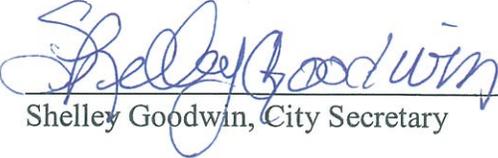
#### **SECTION 13: EFFECTIVE DATE**

This Ordinance shall become effective immediately upon its passage, approval and publication as provided by law.

Passed and approved this 27<sup>th</sup> day of August, 2012.

  
Jay F. Feibelman, Mayor

Attest:

  
Shelley Goodwin, City Secretary

Published in the NB Herald on Thursday, August 30, 2012.

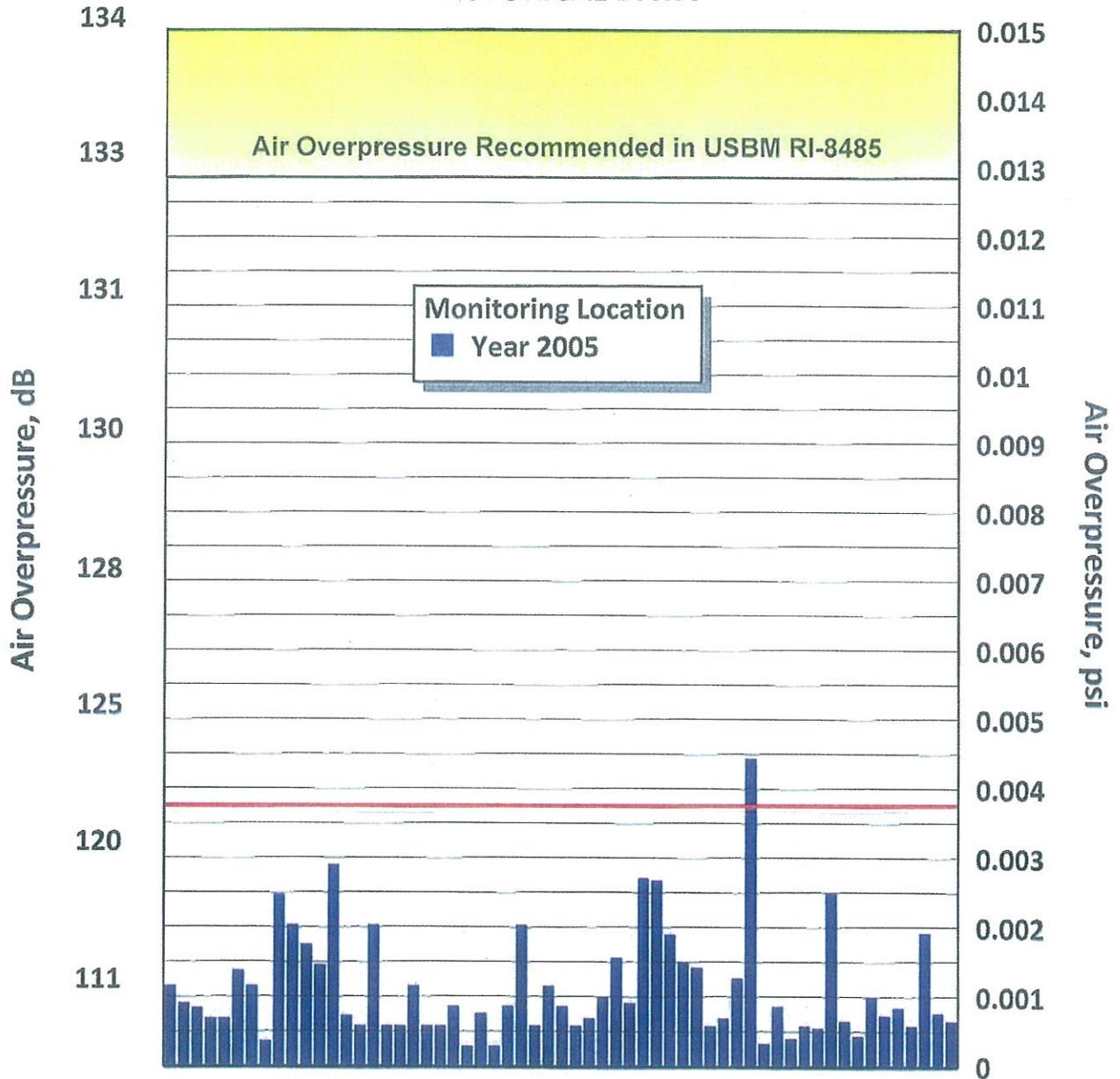
**ATTACHMENT A**

TO ORDINANCE 34-082012

City of Garden Ridge, Texas

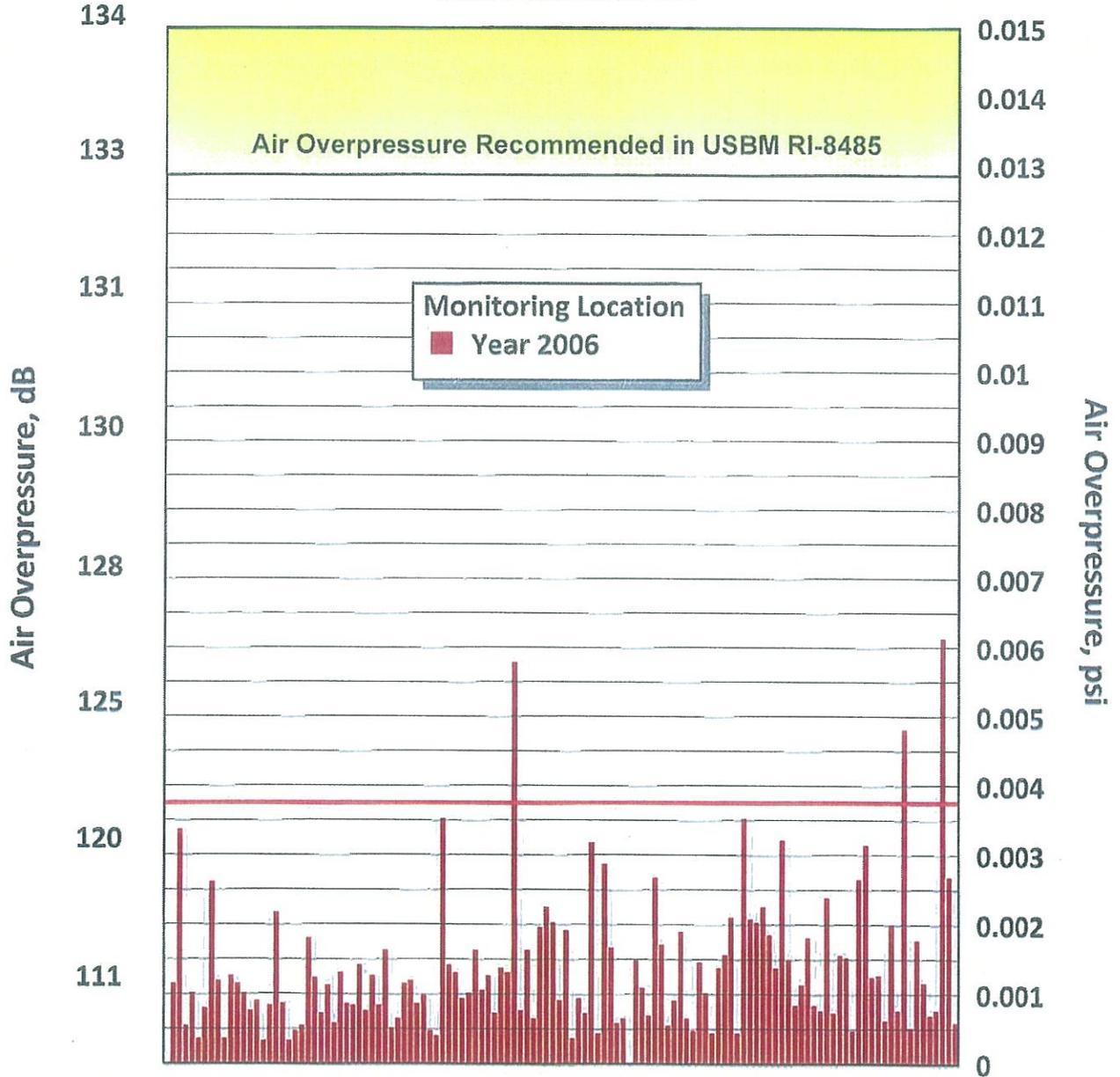
HISTORICAL VIBRA TECH BLAST DATA

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



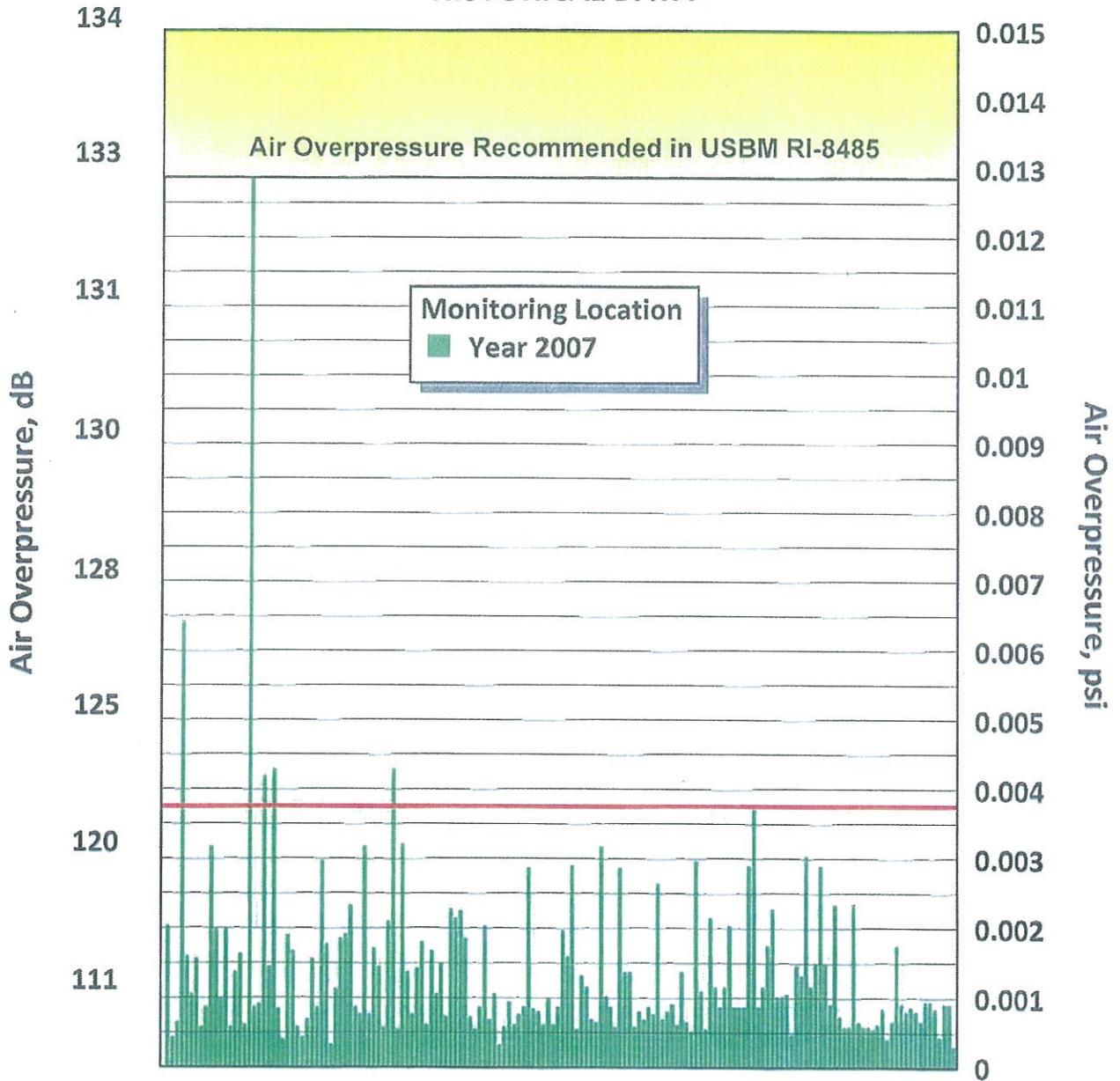
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



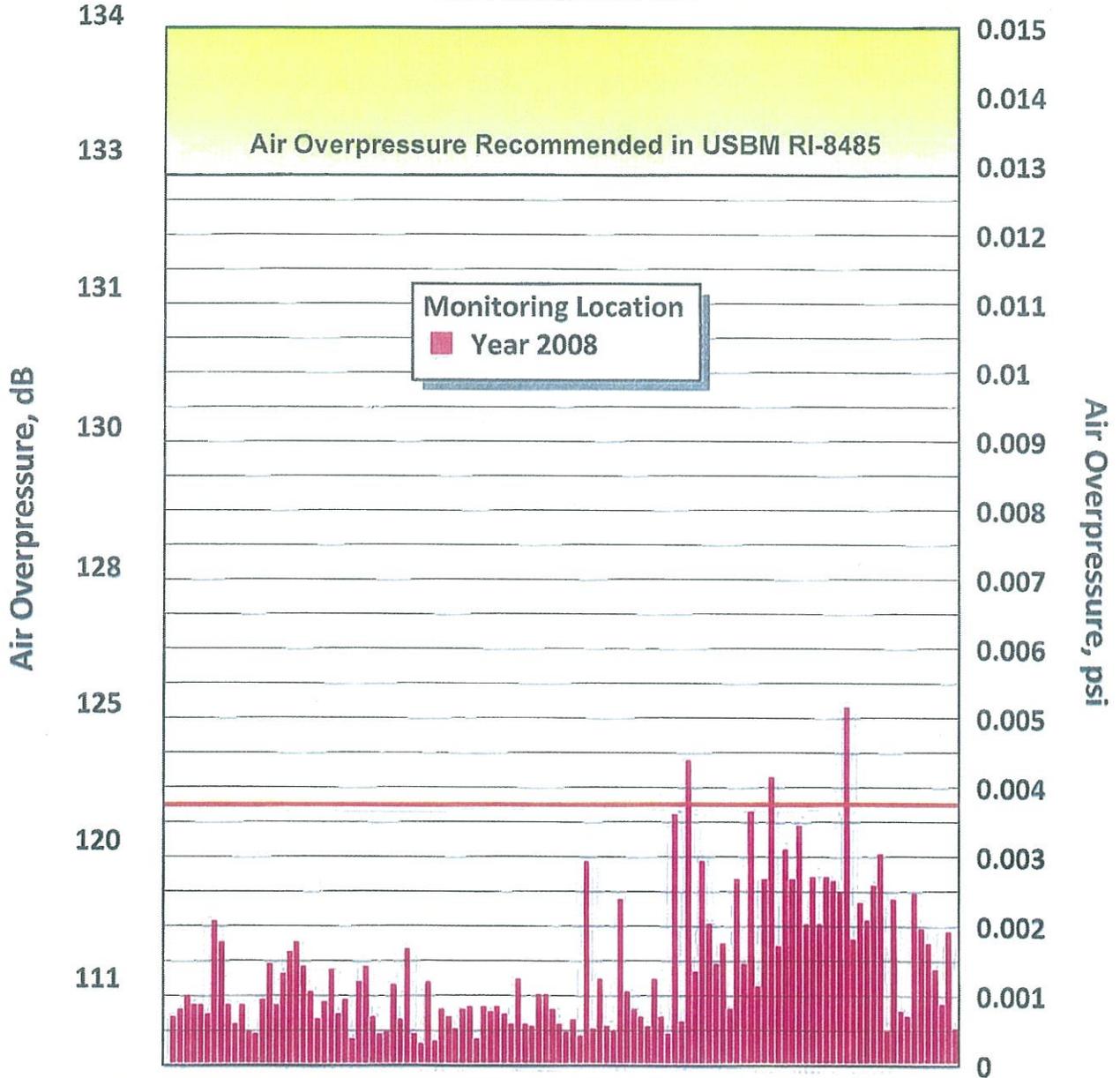
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



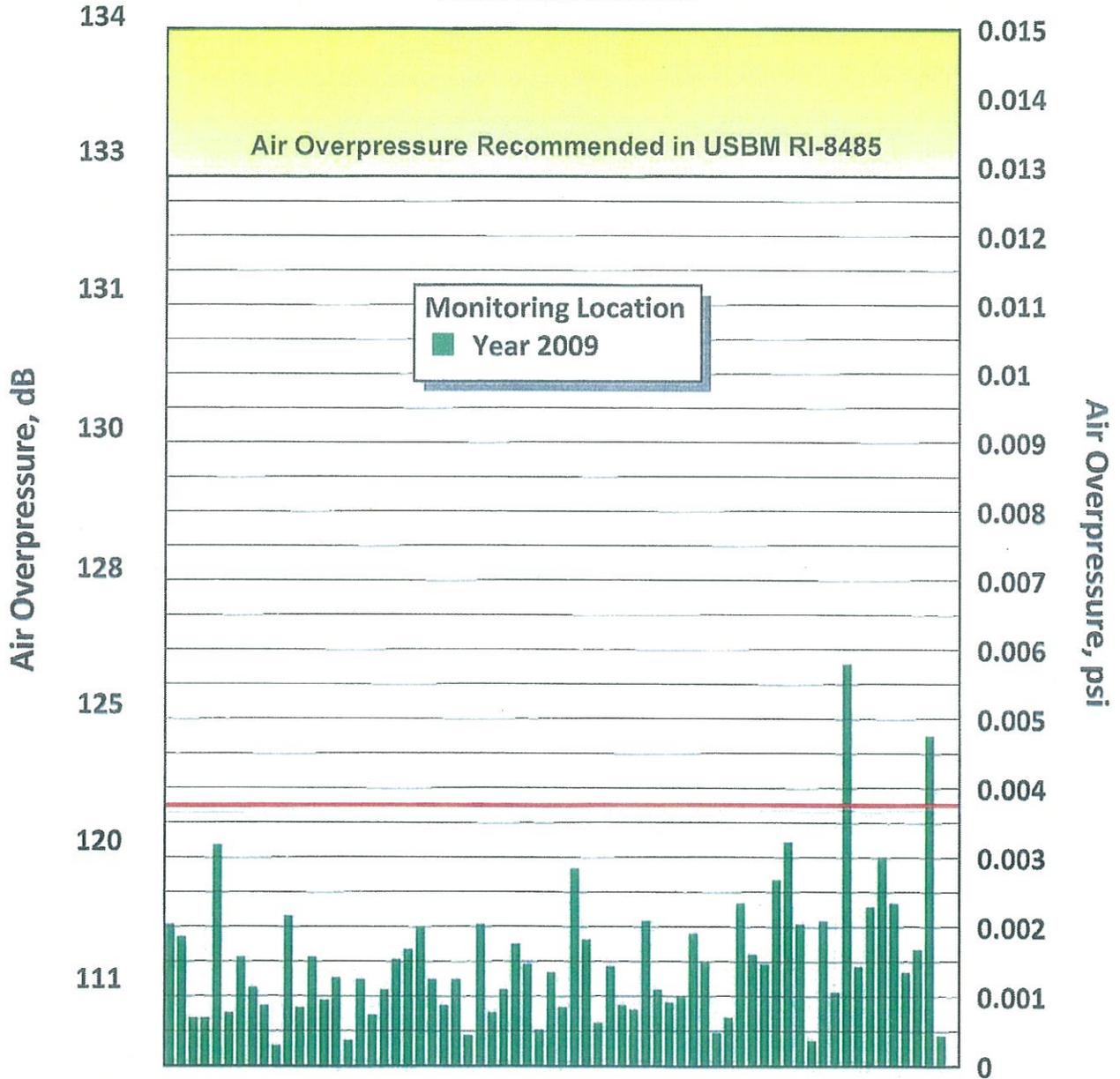
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



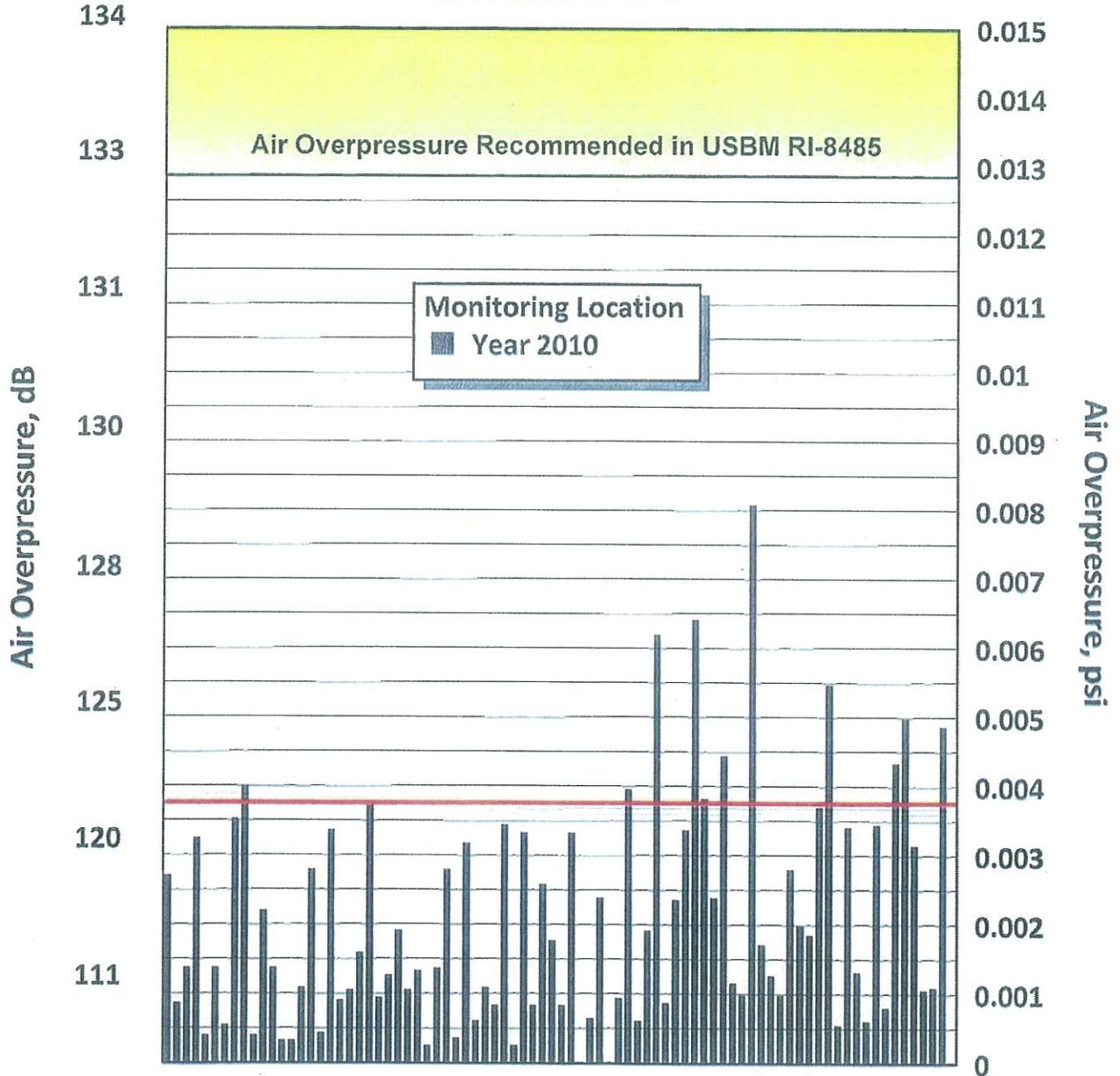
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



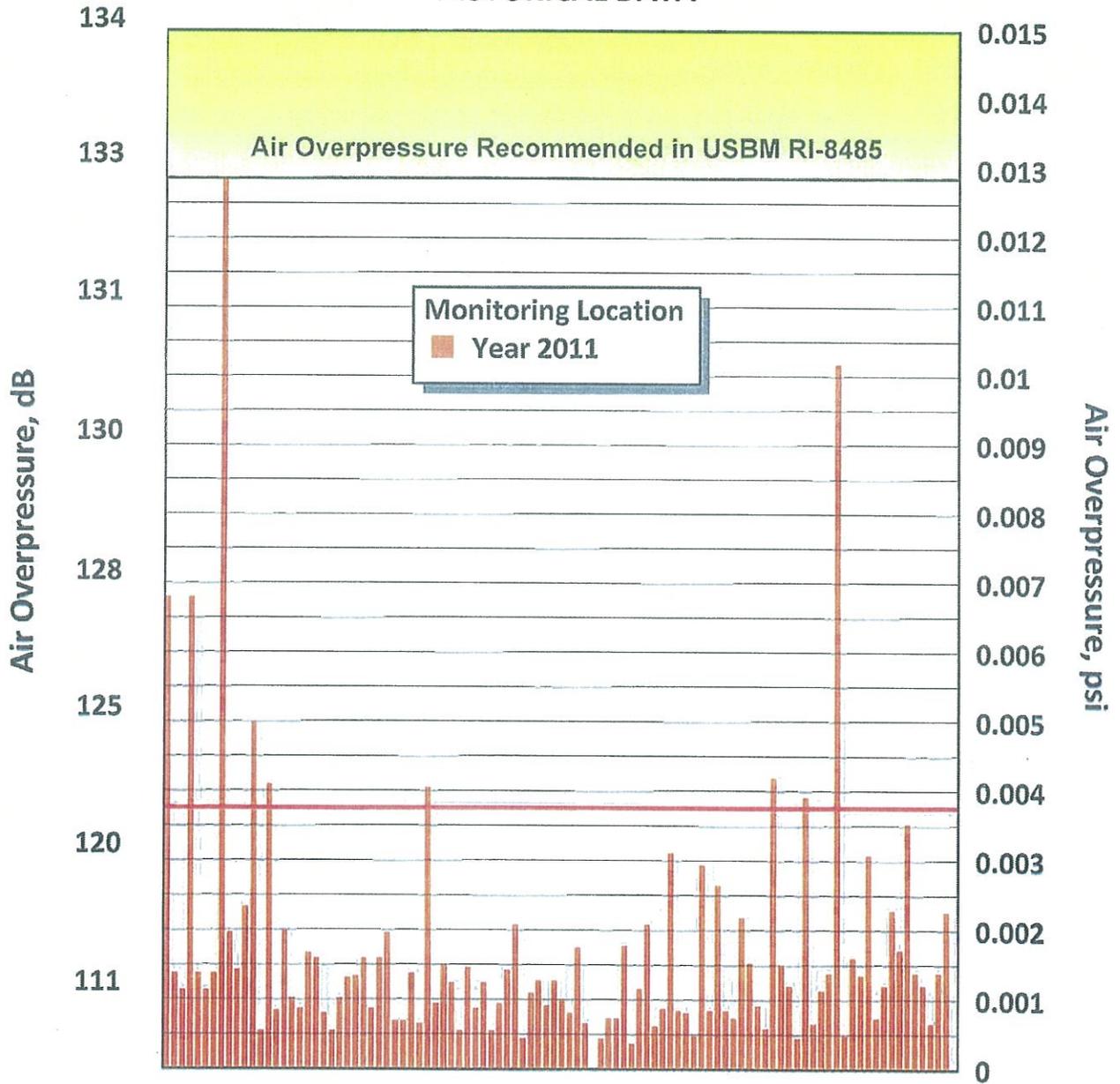
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



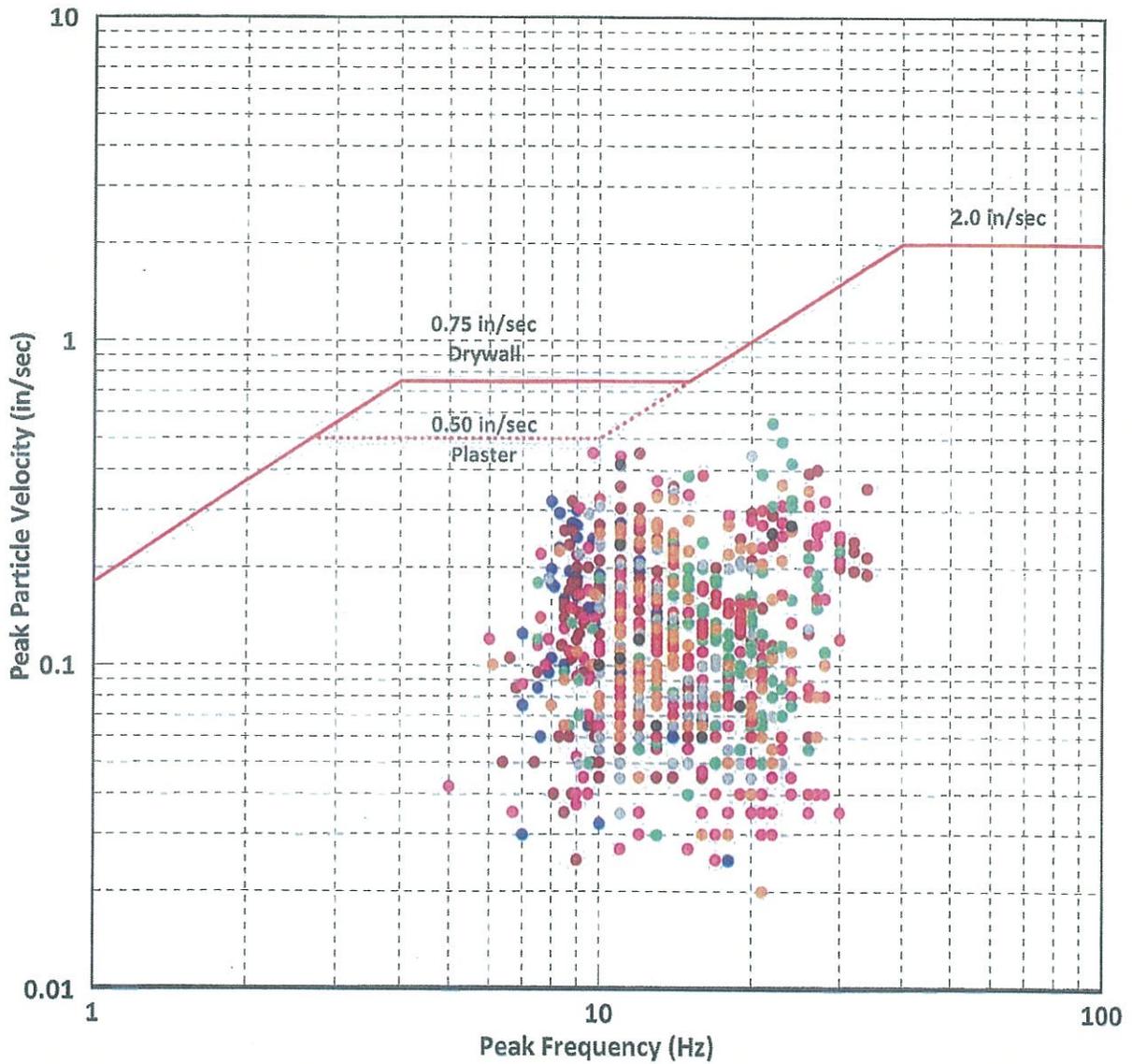
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



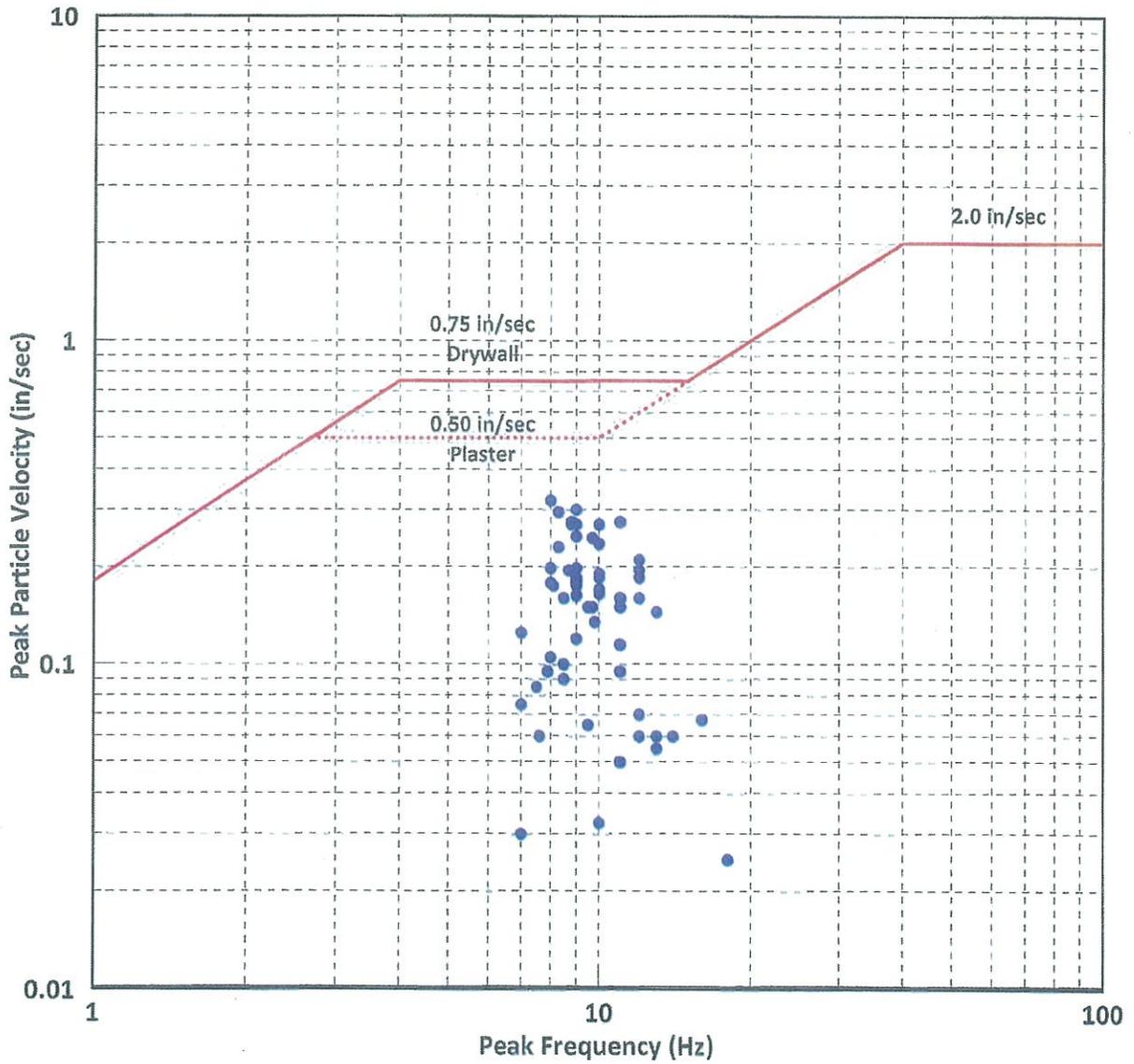
Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL**



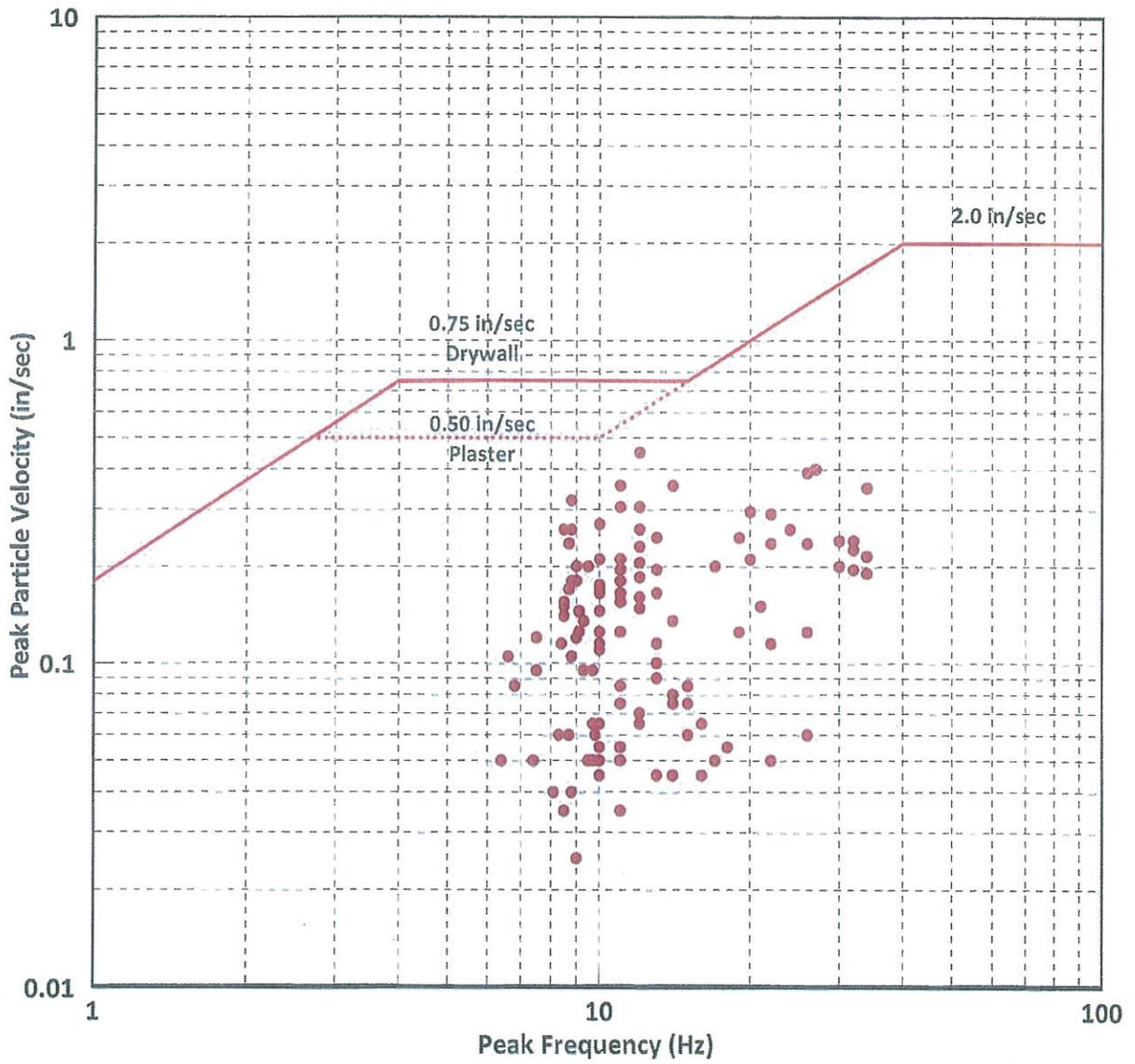
Monitoring Location	
● Year 2005	● Year 2009
● Year 2006	● Year 2010
● Year 2007	● Year 2011
● Year 2008	● Year 2012

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



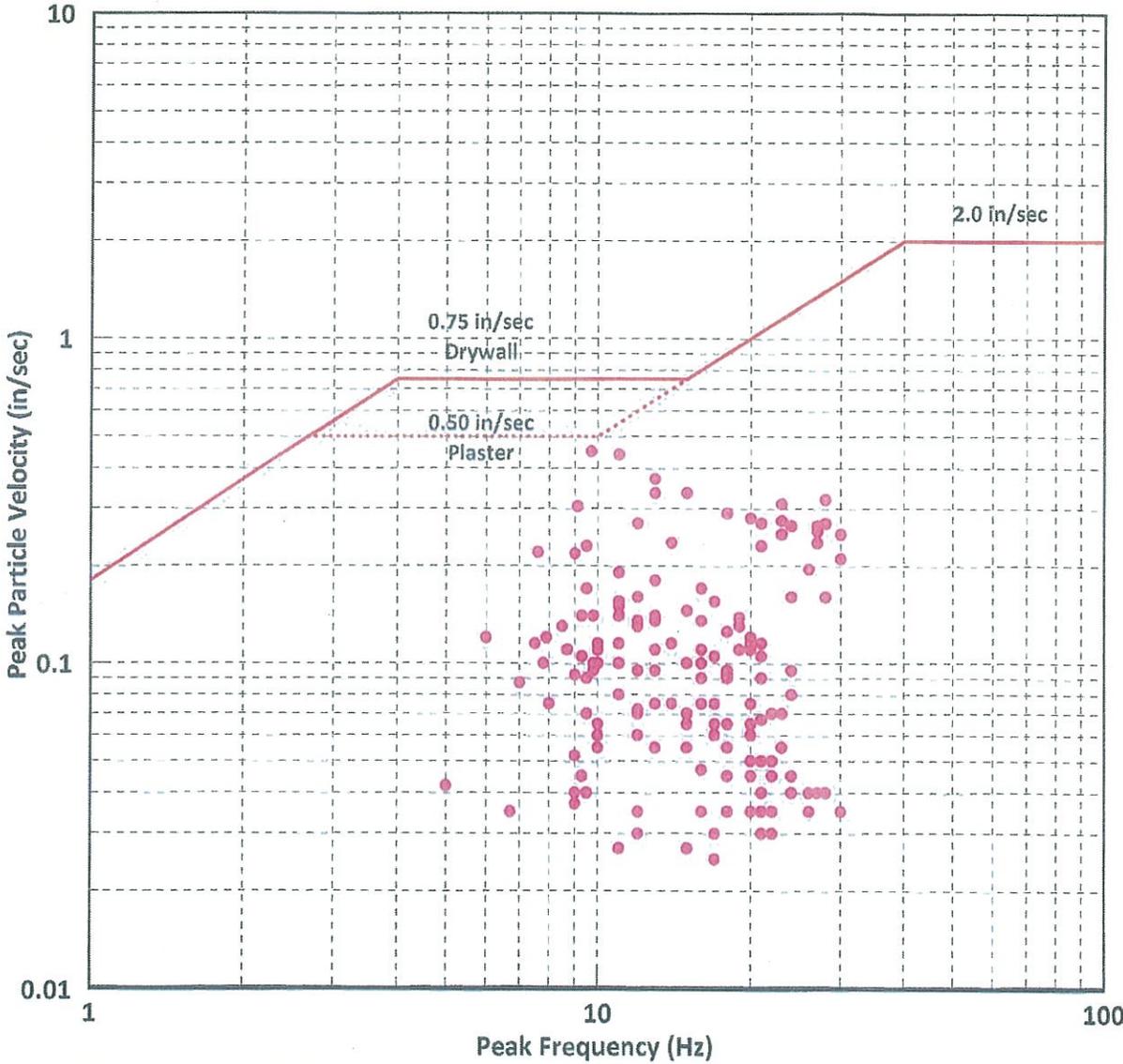
Monitoring Location  
• Year 2005

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



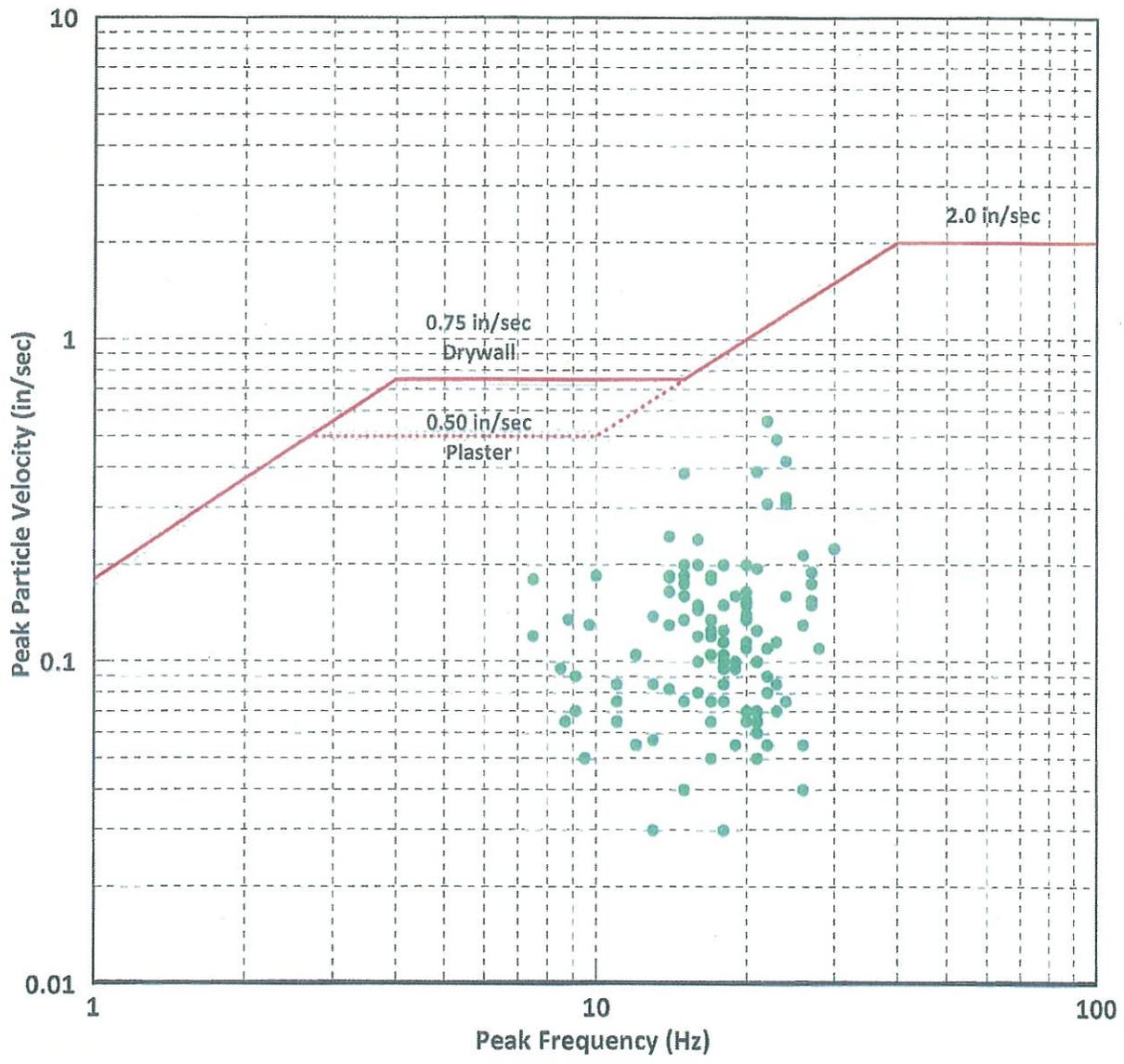
Monitoring Location  
● Year 2006

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



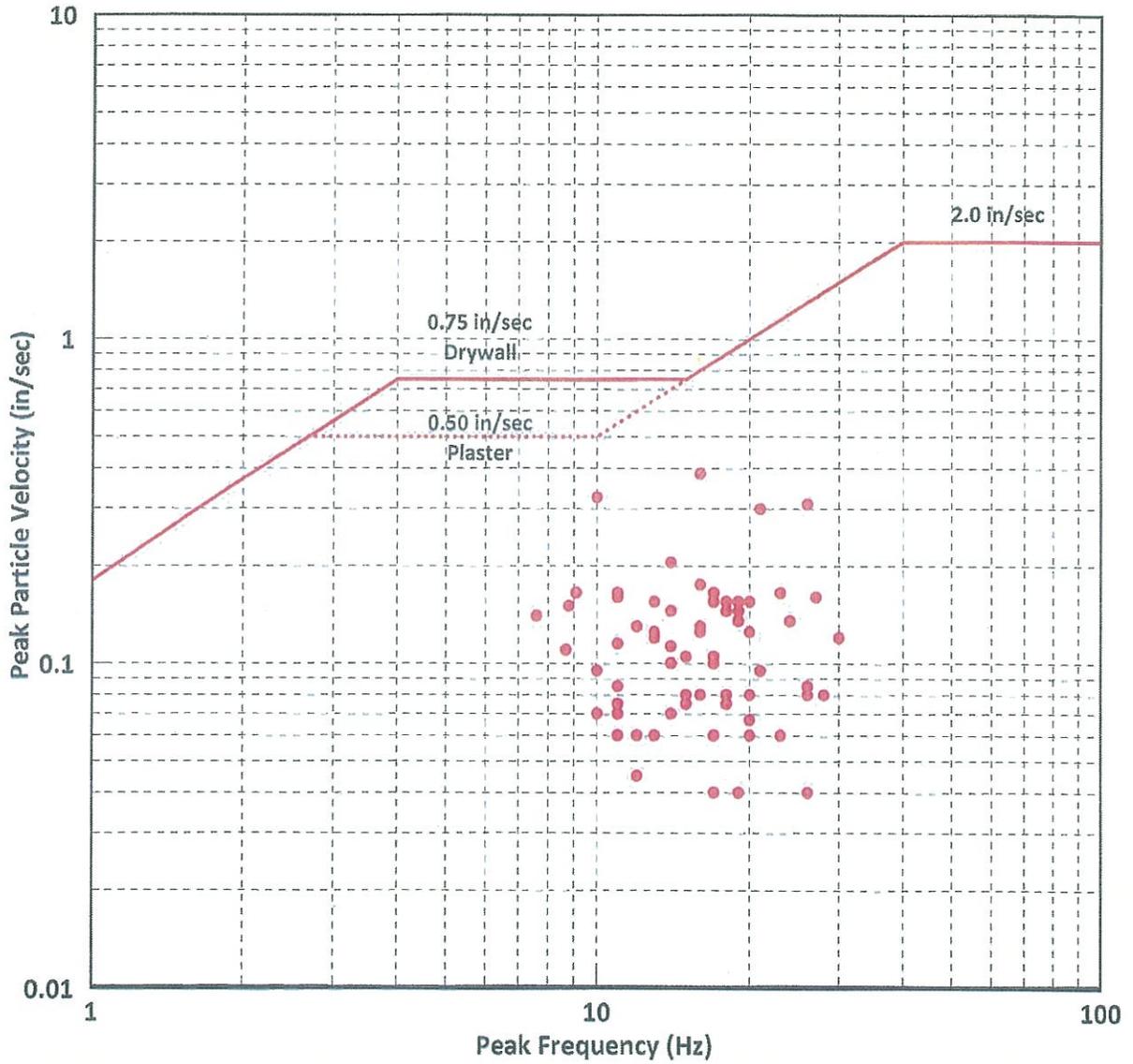
Monitoring Location  
● Year 2007

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



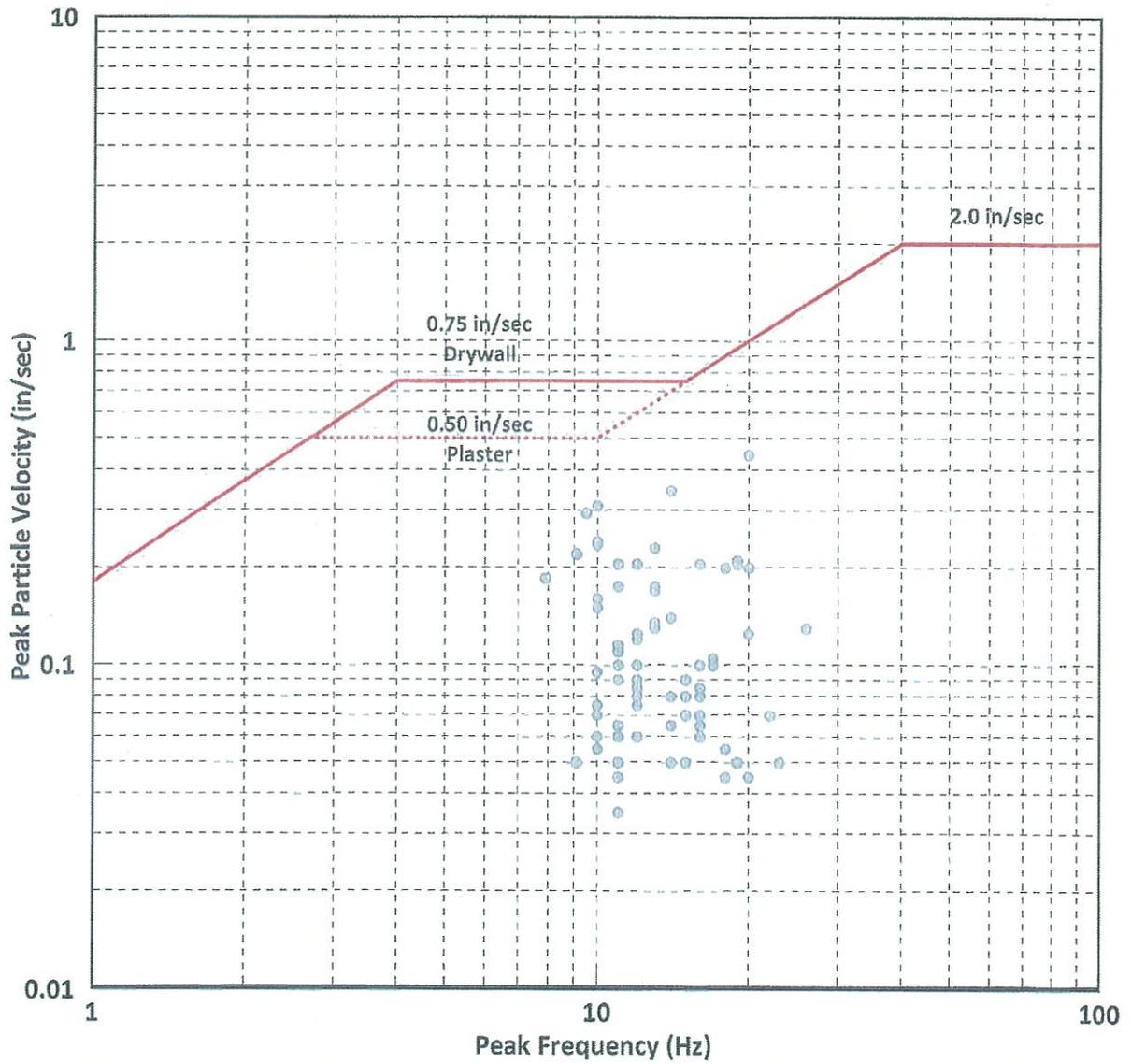
Monitoring Location  
● Year 2008

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL

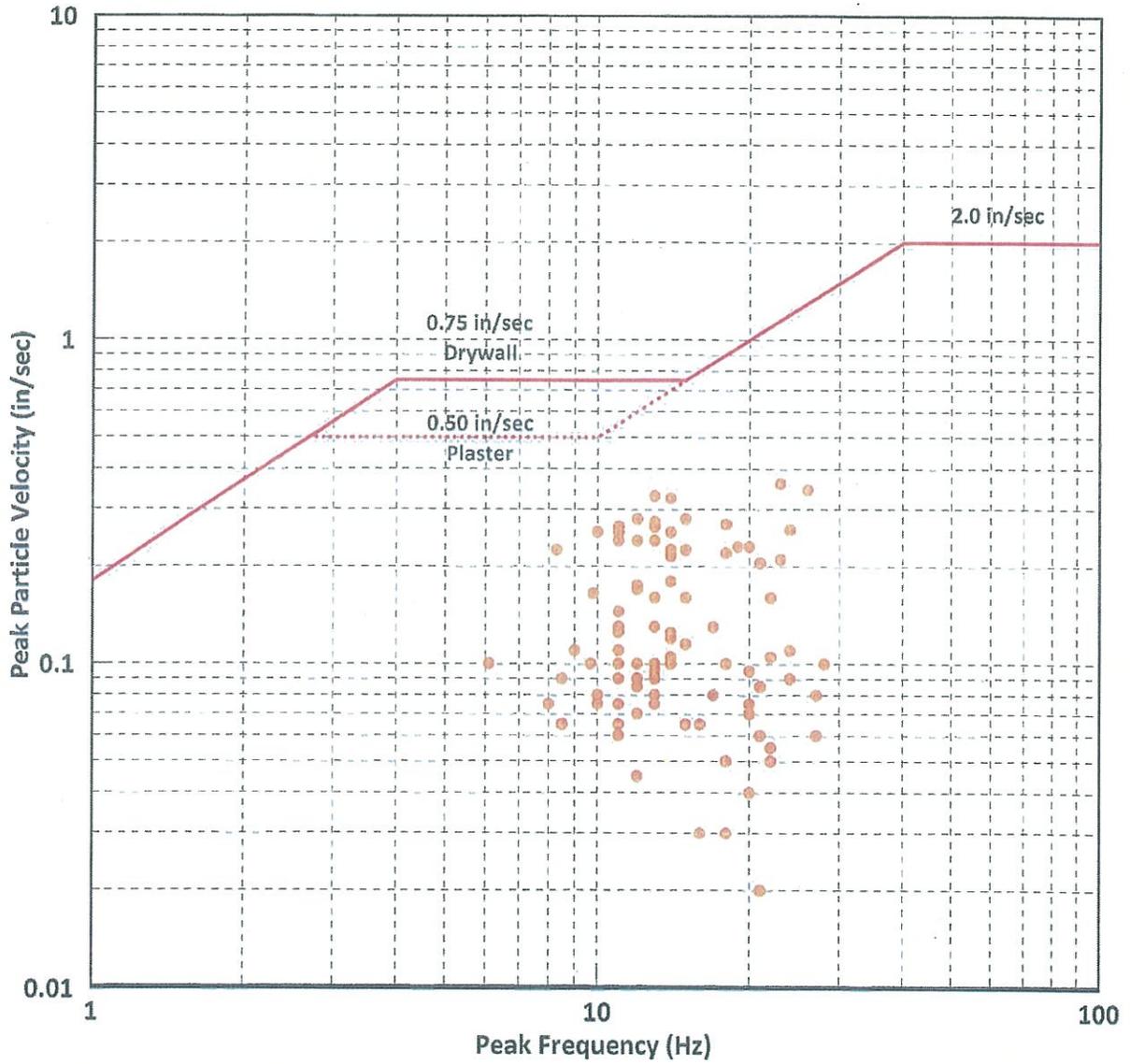


Monitoring Location  
● Year 2009

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL

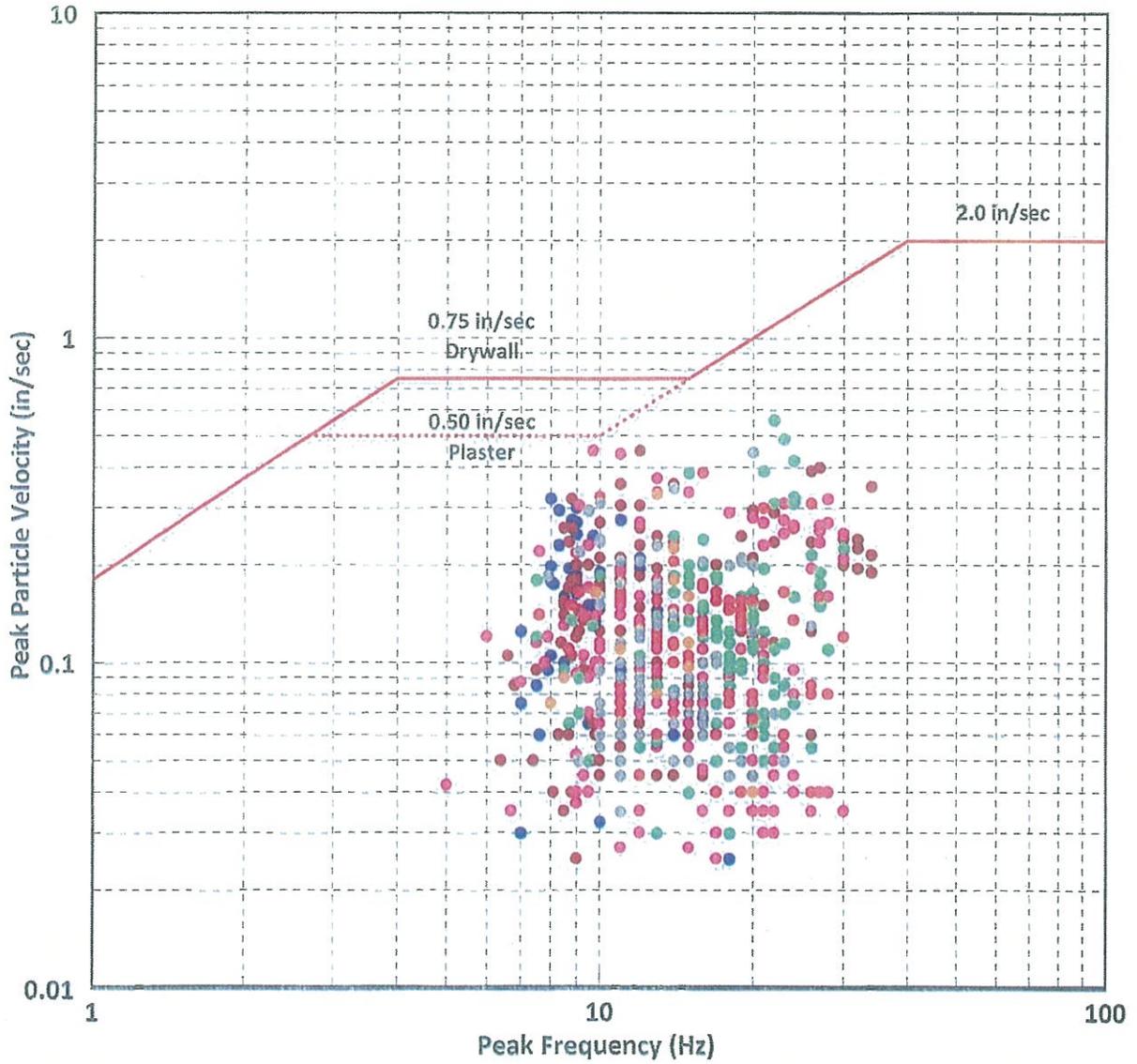


GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



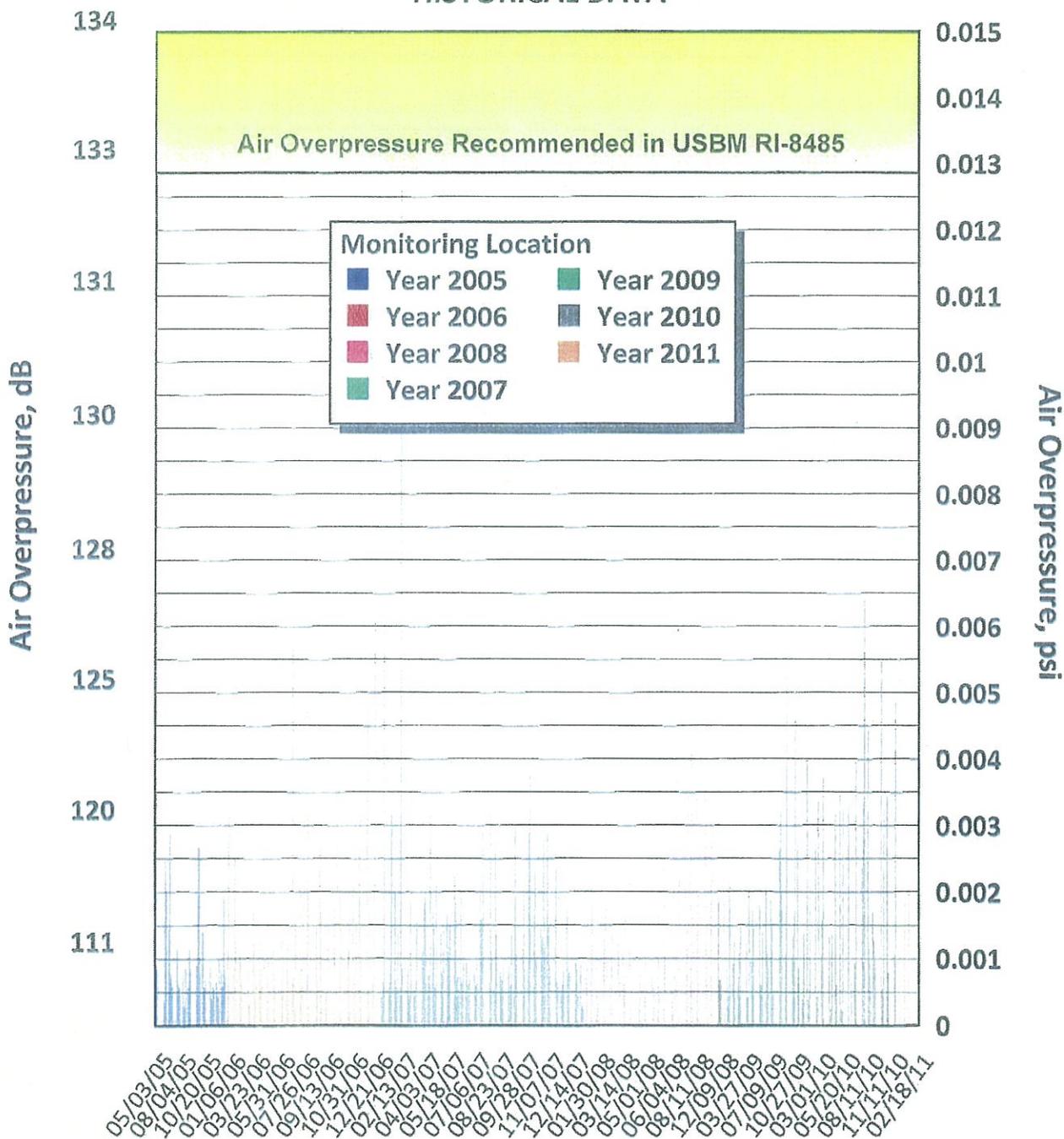
Monitoring Location  
● Year 2011

GARDEN RIDGE QUARRY COMMISSION  
HANSON - SERVTEX QUARRY  
WARDEN - HISTORICAL



Monitoring Location	
● Year 2005	● Year 2009
● Year 2006	● Year 2010
● Year 2007	● Year 2011
● Year 2008	

**GARDEN RIDGE QUARRY COMMISSION  
 AIR OVERPRESSURE LEVELS  
 HANSON - SERVTEX QUARRY  
 GARDEN RIDGE, TEXAS  
 HISTORICAL DATA**



Note: Air Overpressure Level Recommended in USBM RI-8485 (133 dB)  
 Air Overpressure Level Required to Crack Window Panes (150 dB)

**ATTACHMENT B**

TO ORDINANCE 34-082012

City of Garden Ridge, Texas

Request for Partial Exemption Permit to Conduct Blasting

Instruction Sheet

To be considered for a Partial Exemption Permit to conduct Blasting as defined in City of Garden Ridge, Texas Ordinance 34, please prepare a letter addressed to the attention of the City Administrator for the City of Garden Ridge, Texas, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

In the letter, please include:

- 1) The name of the designee;
- 2) The name of the designee's representative for purposes of the application (if the designee is not a natural person);
- 3) Copies of any state or federal licenses and permits authorizing the Requestor to possess and use explosives.
- 4) Complete contact information, including name, address, phone number, facsimile number and e-mail address for the City's use in processing the application. The contact information provided shall be used for all communications in connection with the processing of the application and the operation;
- 5) A full description of the designee's legal and factual relationship to the property(ies) upon which the Blasting shall be conducted;
- 6) A detailed description of the operation to be conducted;
- 7) The period of time the anticipated use shall continue;
- 8) Any supplemental information requested and deemed pertinent by the City Administrator;
- 9) Any supplemental information the designee deems pertinent prior to City Council consideration;

Also, include with your letter, the attachments identified below:

- 1) Identifying all real property where the activity of Blasting shall be conducted by street address (if any) and legal description. Any property not listed will not be included in any permit, if authorized. If multiple properties are to be considered, and some are not within the City limits, but is within the City's extra-territorial jurisdictional limits, please include each property in the list but designate the property with the comment: "ETJ Property".
- 2) A plan view drawing completed under seal by a licensed professional surveyor or civil engineer to appropriate scale, showing all properties listed for inclusion into the Partial Exemption Permit for Blasting.
- 3) If you are not the owner of the real property, a letter from the Owner executed before a notary, that they are the owner of the property and authorize blasting activities on the property.
- 4) Documentation and facts demonstrating that the Requestor's Blasting operation is going to be conducted in a manner that minimizes its related adverse impact on property value, other land use development, the economy, employment, property taxes and the public and communities who live and work adjacent to such land use. Please specifically list all steps taken, such as distance limitations related to adjacent properties, use of berms and any dust and noise remediation efforts, etc.
- 5) Documents and facts demonstrating efforts by designee to protect and mitigate the perceived negative adverse affects such activity has on real property values, public safety, health & welfare interests, including the quality of life within the City, neighboring properties and the public.
- 6) Payment of the appropriate application fee, including any related City fees for monitoring blasting for each permitted Partial Exemption Permit site.

All applications for Partial Exemption Permits to conduct Blasting activities shall be submitted for review at the next regularly scheduled Quarry Commission meeting if received 14 days prior to the date of the meeting. The Commission shall determine whether the request is complete. If incomplete, the City shall inform the designee what aspects of the application are insufficient and will provide the designee seven (7) business days to supplement and/or modify the application to permit it to be placed for City Council consideration as a completed application.

If the application meets all criteria provided by the ordinance as determined by the Commission, or by subsequent supplementation as provided in the determination of the Chair of the Commission, the permit request shall be scheduled for City Council action as provided below for complete applications. Any application considered incomplete shall not be considered for approval by City Council. Any application that remains incomplete for a period of more than 60 days shall be considered withdrawn.

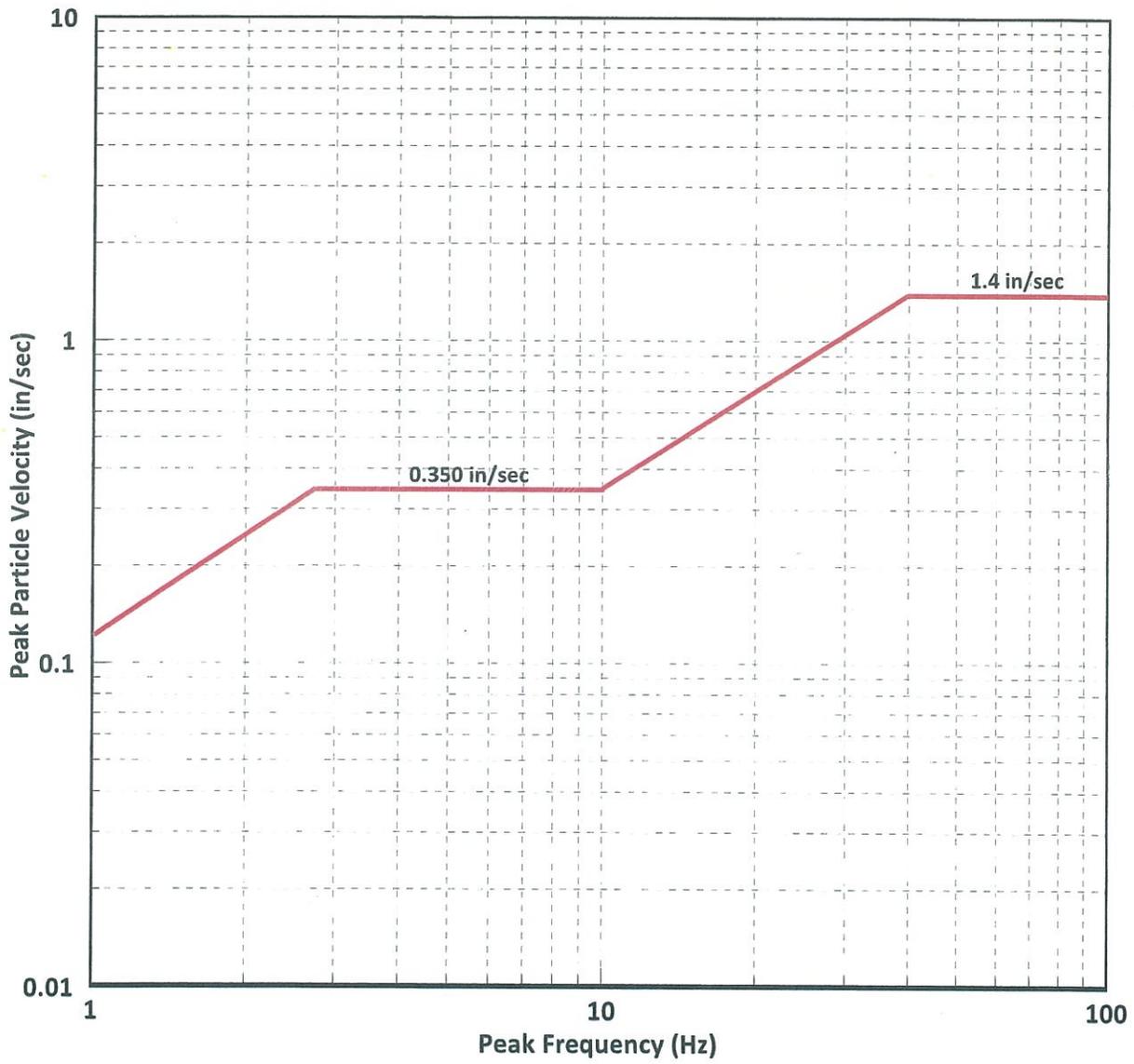
If the request is found complete, the City Administrator shall place the matter on the next regular City Council meeting agenda for action (but may include it on an agenda for a specially called meeting at her discretion). If the City Council approves the permit, the City Administrator shall issue a Partial Exemption Permit to the Requestor, which is not transferable or assignable and is revocable if the permit holder is found to repeatedly violate the blasting regulations under the ordinance or fail to pay any related fees.

ATTACHMENT C

RED LINE - 70% OF USBM Z-CURVE (PLASTER)

(Provided by - Vibra-Tech)

# GARDEN RIDGE QUARRY COMMISSION



**ATTACHMENT D**

TO ORDINANCE 34-082012

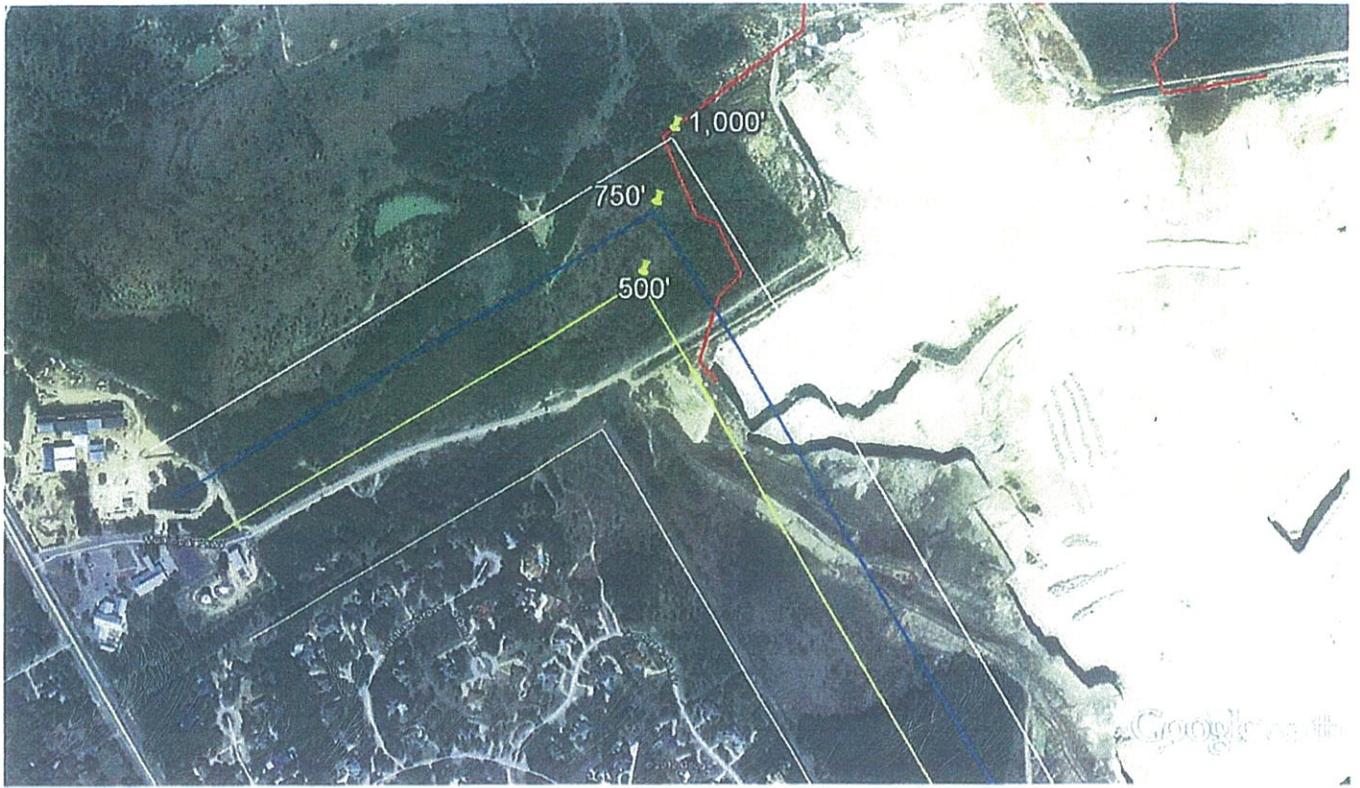
City of Garden Ridge, Texas

BERM CONTOUR COORDINATES



Google earth





Google earth

