



QualiTest® Diagnostics

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July 30th, 2025

Marshall Young
Lemons East Plant
Dexter, MO

Marshall,

The following is a summary of findings from the July 2025 monthly vibration survey at the Lemons East site.

QualiTest® uses a four-step rating system for defects.

Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

Class II: Defect (s) present that may cause problem in long term (2-6 months). Repair during normal maintenance scheduling. Continue to monitor.

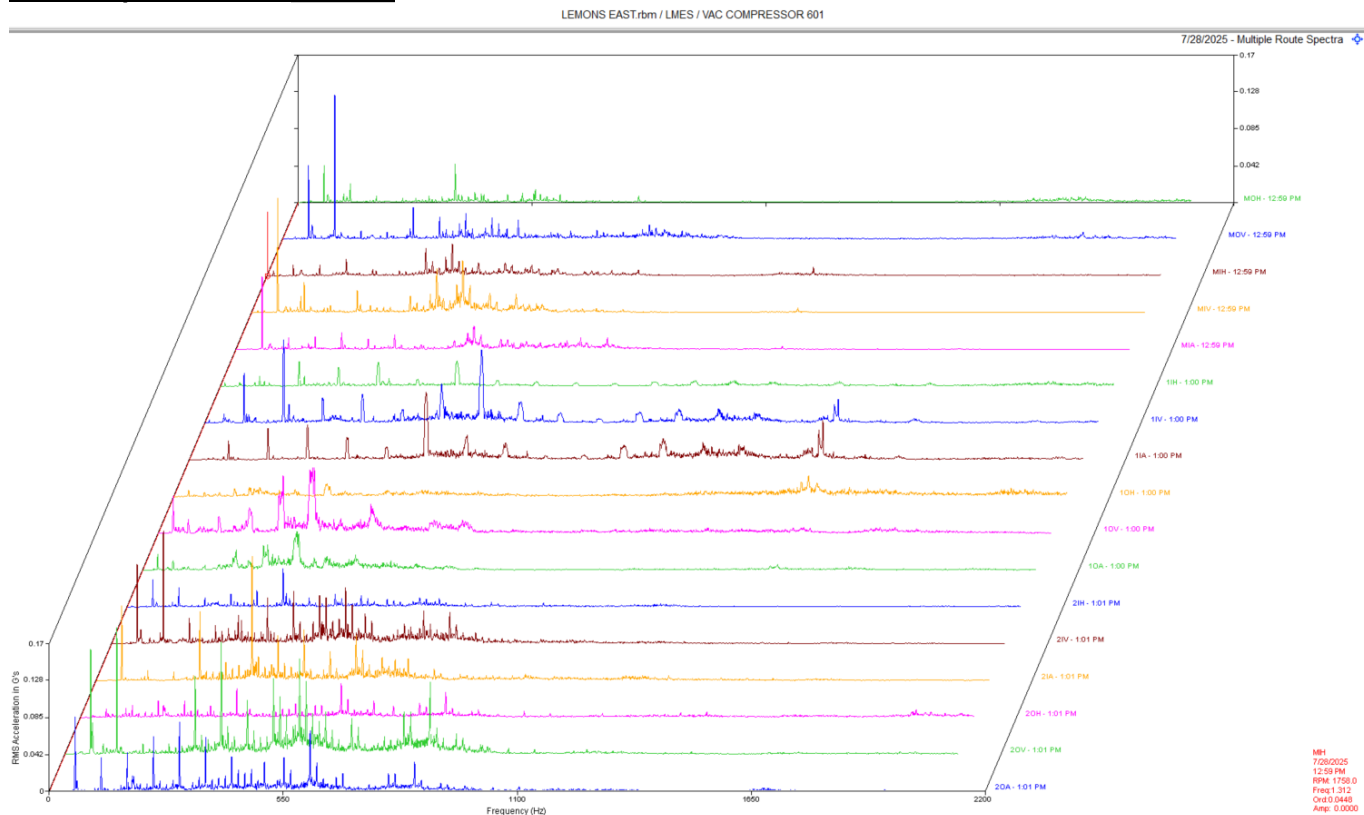
Class III: Defect (s) present that may cause failure in short term (less than 2 months). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

Hi-Speed Industrial Service tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

Defects

Vac Compressor 601 CLASS I



Observations:

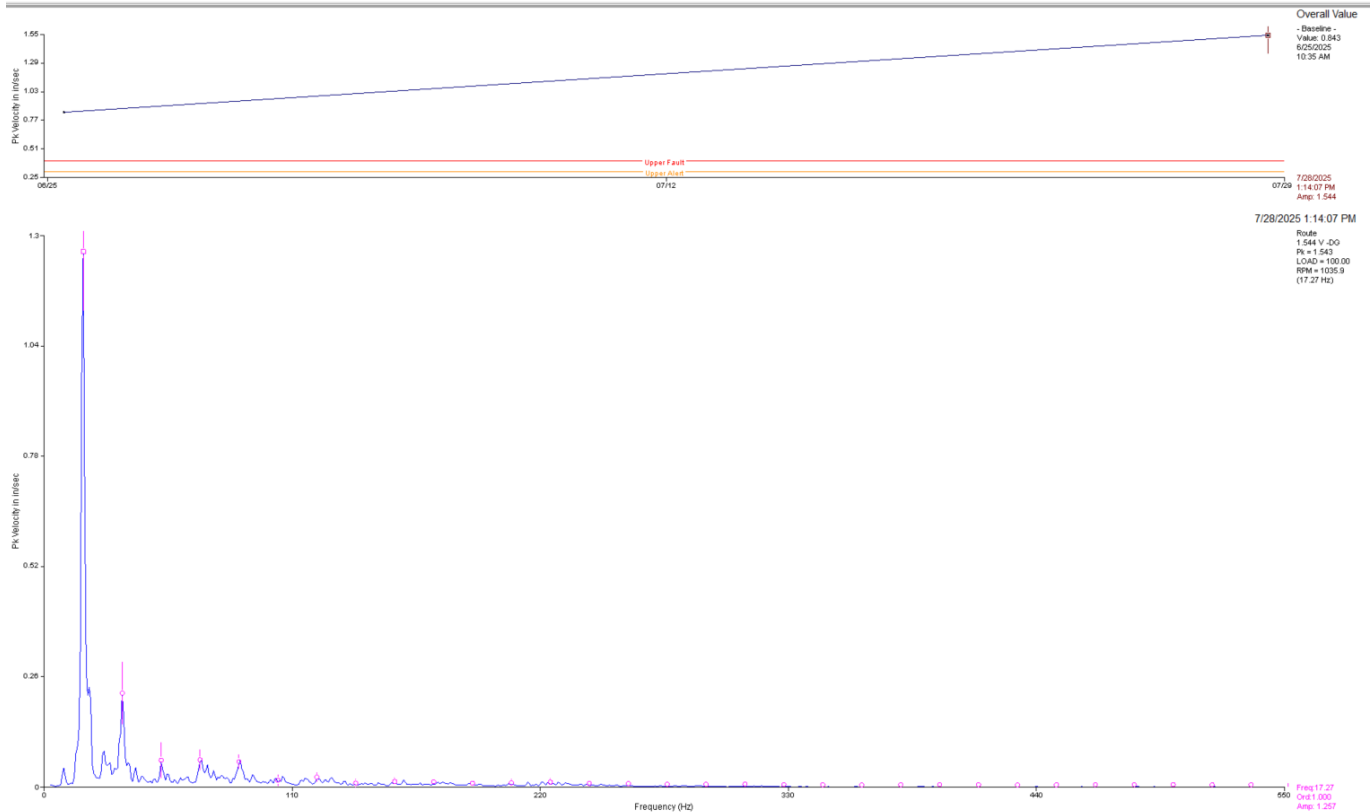
Data above is the waterfall spectra of the motor and compressor. There appears to be some harmonic peaks and noise floor present in the compressor output shaft .

Recommendations:

We need to continue to establish trend able data to help determine severity of this issue; however, data may indicate some type of mechanical issue in this output side of the compressor We will continue to monitor this closely.

Sales Gas Compressor 1 CLASS III

LEMONS EAST.rbm / LMES / SALES GAS COMPRESSOR 1 / MIV - MOTOR INBOARD VERTICAL



Observations:

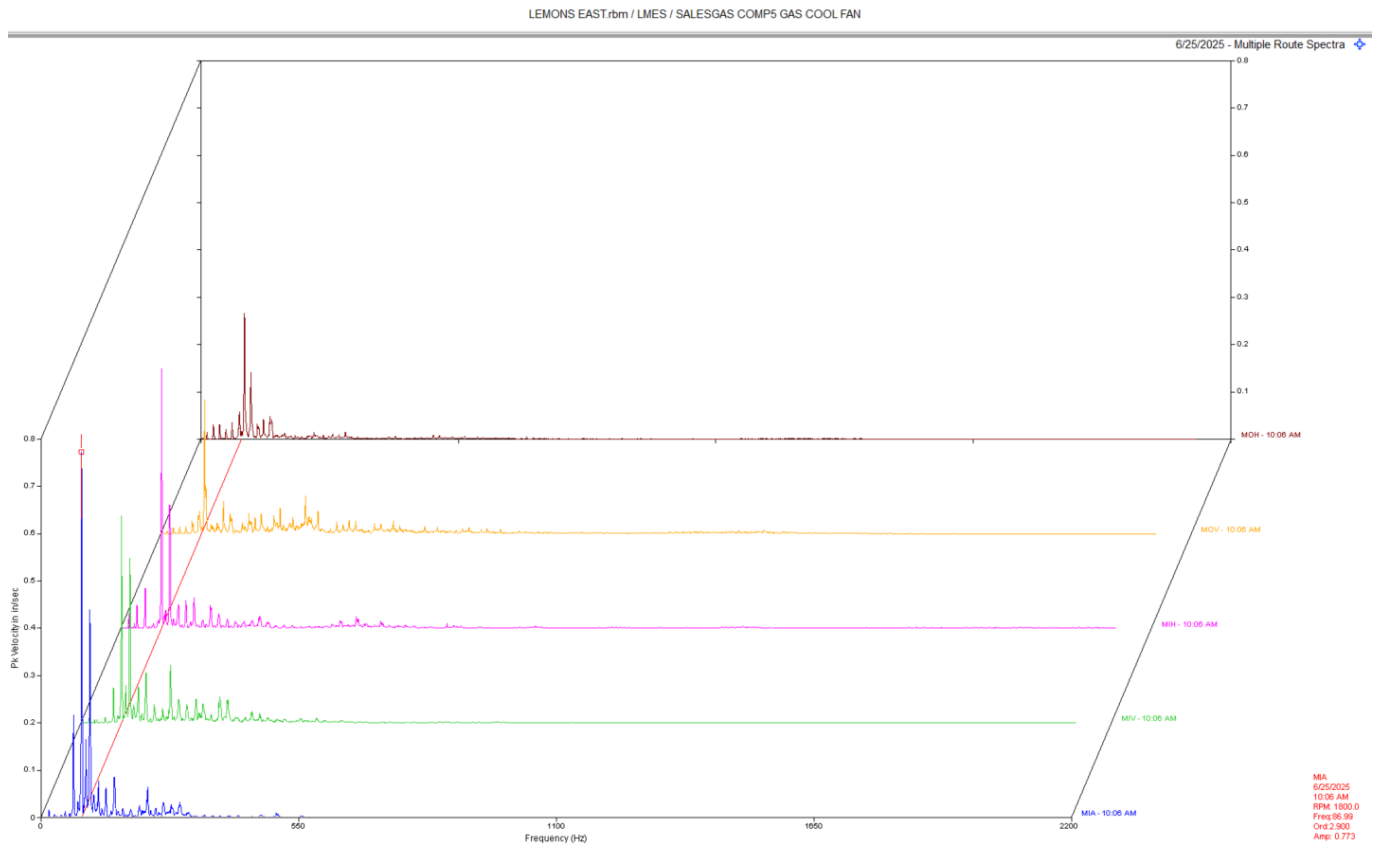
Data above is the motor inboard (drive end) vertical. There is a dominant peak in the spectrum at 17.27 Hz. This is likely a harmonic of motor or compressor speed.

Recommendations:

A visual inspection of the base was performed while on site and we noticed that the base is cracked. This is likely the cause of the dominant vibration in the motor. Inspect base and repair all cracks. Realign the motor to the compressor ensuring that there is no soft foot present.

This unit was down; however, the following likely still applies.

Sales Gas Comp 5 Gas Cooler Fan **CLASS II**



Observations:

Data above is the motor multi-point spectral waterfall. There appear to be several harmonics and a dominant peak that appears to be non-synchronous in the spectral data.

Recommendations:

Similar to the #3 fan with higher overall amplitudes, there may be an issue with the motor bearings according to spectral data. We will need to strobe the motor next visit to confirm speed. We also need to establish a better trend; however, the high amplitudes and presence of these type of peaks is concerning. Motor may need attention soon. We will monitor this closely next survey.

Abbreviated Last Measurement Summary

Database: LEMONS EAST.rbm
Area: LEMONS EAST

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
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VRCOMPOPM - VAC/RINSECOMP601 OIL PMP MTR (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.057 In/Sec	.420 G-s
MOP	.0065 In/Sec	
MOV	.065 In/Sec	.136 G-s
MIH	.051 In/Sec	.642 G-s
MIP	.012 In/Sec	
MIV	.098 In/Sec	.121 G-s
MIA	.055 In/Sec	.157 G-s
VRCOCFM - V/R COMP601 OILCOOLFAN MTR (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.085 In/Sec	.293 G-s
MOP	.0035 In/Sec	
MOV	.031 In/Sec	.168 G-s
MIH	.026 In/Sec	.936 G-s
MIP	.011 In/Sec	
MIV	.033 In/Sec	.103 G-s
MIA	.054 In/Sec	.234 G-s
VACCOMP601 - VAC COMPRESSOR 601 (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.071 In/Sec	.418 G-s
MOP	.0053 In/Sec	
MOV	.179 In/Sec	.172 G-s
MIH	.053 In/Sec	.265 G-s
MIP	.0031 In/Sec	
MIV	.197 In/Sec	.084 G-s
MIA	.124 In/Sec	.093 G-s
1IH	.053 In/Sec	.247 G-s
1IP	.0030 In/Sec	
1IV	.123 In/Sec	.139 G-s
1IA	.063 In/Sec	.180 G-s
1OH	.045 In/Sec	.447 G-s
1OP	.0042 In/Sec	
1OV	.168 In/Sec	.122 G-s
1OA	.083 In/Sec	.072 G-s
2IH	.060 In/Sec	.097 G-s
2IV	.187 In/Sec	.051 G-s
2IA	.146 In/Sec	.061 G-s
2OH	.043 In/Sec	.187 G-s
2OP	.0028 In/Sec	
2OV	.252 In/Sec	.061 G-s
2OA	.159 In/Sec	.058 G-s
STG2IFCOC - STG2 INLETFEEDCOMP OILCOOLER (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.018 In/Sec	.099 G-s
MOV	.026 In/Sec	.088 G-s
MIH	.010 In/Sec	.173 G-s
MIP	.0021 In/Sec	
MIV	.018 In/Sec	.046 G-s
MIA	.019 In/Sec	.055 G-s
STG2IFCOMP - STG2 INLET FEED COMPRESSOR (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.081 In/Sec	1.240 G-s
MOP	.023 In/Sec	
MOV	.065 In/Sec	.203 G-s
MIH	.107 In/Sec	1.178 G-s
MIP	.018 In/Sec	

MIV	.073 In/Sec	.315 G-s
MIA	.080 In/Sec	.278 G-s
1IH	.072 In/Sec	.243 G-s
1IP	.0031 In/Sec	
1IV	.153 In/Sec	.160 G-s
1IA	.133 In/Sec	.255 G-s
1OH	.124 In/Sec	.528 G-s
1OP	.0072 In/Sec	
1OV	.167 In/Sec	.119 G-s
1OA	.104 In/Sec	.115 G-s
2IH	.098 In/Sec	.407 G-s
2IP	.0057 In/Sec	
2IV	.227 In/Sec	.085 G-s
2IA	.119 In/Sec	.094 G-s
2OH	.099 In/Sec	.437 G-s
2OP	.0036 In/Sec	
2OV	.144 In/Sec	.293 G-s
2OA	.078 In/Sec	.244 G-s

STGLIFCOC - STG1 INLET FEED COMP OILCOOLER (28-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.019 In/Sec	.302 G-s
MOP	.0051 In/Sec	
MOV	.021 In/Sec	.064 G-s
MIH	.022 In/Sec	.423 G-s
MIP	.0070 In/Sec	
MIV	.026 In/Sec	.055 G-s
MIA	.022 In/Sec	.061 G-s

STGLIFCOMP - STG1 INLET FEED COMPRESSOR (28-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.148 In/Sec	2.209 G-s
MOP	.040 In/Sec	
MOV	.089 In/Sec	.950 G-s
MIH	.121 In/Sec	.988 G-s
MIP	.011 In/Sec	
MIV	.079 In/Sec	.287 G-s
MIA	.068 In/Sec	.232 G-s
1IH	.094 In/Sec	.476 G-s
1IP	.0065 In/Sec	
1IV	.131 In/Sec	.218 G-s
1IA	.128 In/Sec	.279 G-s
1OH	.150 In/Sec	.831 G-s
1OP	.014 In/Sec	
1OV	.141 In/Sec	.282 G-s
1OA	.111 In/Sec	.321 G-s
2IH	.089 In/Sec	.640 G-s
2IP	.011 In/Sec	
2IV	.207 In/Sec	.201 G-s
2IA	.146 In/Sec	.252 G-s
2OH	.094 In/Sec	.937 G-s
2OP	.011 In/Sec	
2OV	.183 In/Sec	.419 G-s
2OA	.094 In/Sec	.220 G-s

SLSGSCMP1 - SALES GAS COMPRESSOR 1 (28-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.221 In/Sec	1.651 G-s
MOP	.023 In/Sec	
MOV	.127 In/Sec	.492 G-s
MIH	.592 In/Sec	2.094 G-s
MIP	.030 In/Sec	
MIV	1.543 In/Sec	.306 G-s
MIA	.817 In/Sec	.468 G-s
C1H	.045 In/Sec	.493 G-s
C1V	.104 In/Sec	.121 G-s
C1A	.090 In/Sec	.154 G-s
C2H	.311 In/Sec	.145 G-s
C2V	.311 In/Sec	.218 G-s
C2A	.284 In/Sec	.078 G-s

C3H	.214 In/Sec	.962 G-s
C3V	.526 In/Sec	.786 G-s
C3A	.260 In/Sec	.569 G-s
SGC1GSCFLN - SALESGAS COMP1 GAS COOL FAN (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.152 In/Sec	.328 G-s
MOP	.0050 In/Sec	
MOV	.127 In/Sec	.309 G-s
MIH	.131 In/Sec	.345 G-s
MIP	.0058 In/Sec	
MIV	.139 In/Sec	.077 G-s
MIA	.187 In/Sec	.089 G-s
SLSGSCMP3 - SALES GAS COMPRESSOR 3 (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.087 In/Sec	1.850 G-s
MOP	.036 In/Sec	
MOV	.064 In/Sec	.282 G-s
MIH	.274 In/Sec	1.900 G-s
MIP	.032 In/Sec	
MIV	.600 In/Sec	.378 G-s
MIA	.288 In/Sec	.307 G-s
C1H	.065 In/Sec	.975 G-s
C1V	.104 In/Sec	.370 G-s
C1A	.075 In/Sec	.227 G-s
C2H	.091 In/Sec	.269 G-s
C2V	.141 In/Sec	.253 G-s
C2A	.136 In/Sec	.153 G-s
C3H	.069 In/Sec	.769 G-s
C3V	.202 In/Sec	1.092 G-s
C3A	.099 In/Sec	.225 G-s
SGC3GSCFLN - SALESGAS COMP3 GAS COOL FAN (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.115 In/Sec	.677 G-s
MOP	.017 In/Sec	
MOV	.256 In/Sec	.485 G-s
MIH	.134 In/Sec	.877 G-s
MIP	.0038 In/Sec	
MIV	.162 In/Sec	.239 G-s
MIA	.168 In/Sec	.132 G-s
SLSGSCMP4 - SALES GAS COMPRESSOR 4 (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.062 In/Sec	1.655 G-s
MOP	.032 In/Sec	
MOV	.058 In/Sec	.220 G-s
MIH	.207 In/Sec	2.126 G-s
MIP	.037 In/Sec	
MIV	.401 In/Sec	.273 G-s
MIA	.246 In/Sec	.455 G-s
C1H	.167 In/Sec	1.611 G-s
C1V	.179 In/Sec	.328 G-s
C1A	.259 In/Sec	.353 G-s
C2H	.332 In/Sec	.363 G-s
C2V	.200 In/Sec	.479 G-s
C2A	.233 In/Sec	.253 G-s
C3H	.119 In/Sec	.985 G-s
C3V	.200 In/Sec	1.111 G-s
C3A	.133 In/Sec	.158 G-s
SGC4GSCFLN - SALESGAS COMP4 GAS COOL FAN (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.153 In/Sec	.821 G-s
MOP	.020 In/Sec	
MOV	.182 In/Sec	.976 G-s
MIH	.162 In/Sec	.842 G-s
MIP	.013 In/Sec	
MIV	.229 In/Sec	.167 G-s

MIA	.312 In/Sec	.223 G-s
SLSGSCMP6 - SALES GAS COMPRESSOR 6 (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.089 In/Sec	1.054 G-s
MOP	.017 In/Sec	
MOV	.068 In/Sec	.279 G-s
MIH	.133 In/Sec	2.410 G-s
MIP	.043 In/Sec	
MIV	.310 In/Sec	.536 G-s
MIA	.124 In/Sec	.583 G-s
C1H	.144 In/Sec	2.052 G-s
C1V	.187 In/Sec	.343 G-s
C1A	.226 In/Sec	.698 G-s
C2H	.210 In/Sec	.233 G-s
C2V	.168 In/Sec	.508 G-s
C2A	.324 In/Sec	.263 G-s
C3H	.136 In/Sec	.829 G-s
C3V	.264 In/Sec	.576 G-s
C3A	.168 In/Sec	.617 G-s
SGC6GSCLFN - SALESGAS COMP6 GAS COOL FAN (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.167 In/Sec	.538 G-s
MOP	.011 In/Sec	
MOV	.191 In/Sec	.769 G-s
MIH	.188 In/Sec	.674 G-s
MIP	.0091 In/Sec	
MIV	.172 In/Sec	.146 G-s
MIA	.255 In/Sec	.166 G-s
RNSCOMP601 - RINSE COMPRESSOR 601 (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.080 In/Sec	2.108 G-s
MOP	.035 In/Sec	
MOV	.069 In/Sec	.213 G-s
MIH	.061 In/Sec	1.672 G-s
MIP	.017 In/Sec	
MIV	.077 In/Sec	.854 G-s
MIA	.057 In/Sec	.346 G-s
1IH	.104 In/Sec	.518 G-s
1IP	.0078 In/Sec	
1IV	.115 In/Sec	.229 G-s
1IA	.112 In/Sec	.196 G-s
1OH	.174 In/Sec	.778 G-s
1OP	.0096 In/Sec	
1OV	.128 In/Sec	.362 G-s
1OA	.090 In/Sec	.486 G-s
2IH	.077 In/Sec	.518 G-s
2IP	.0040 In/Sec	
2IV	.108 In/Sec	.084 G-s
2IA	.101 In/Sec	.077 G-s
2OH	.061 In/Sec	.893 G-s
2OP	.0091 In/Sec	
2OV	.089 In/Sec	.124 G-s
2OA	.136 In/Sec	.116 G-s
AIRCOMP B - AIR COMPRESSOR B (28-Jul-25)		
	OVERALL LEVEL	1K-20KHz
MOH	.192 In/Sec	.145 G-s
MOP	.0020 In/Sec	
MOV	.450 In/Sec	.091 G-s
MIH	.107 In/Sec	.176 G-s
MIP	.0020 In/Sec	
MIV	.390 In/Sec	.122 G-s
MIA	.146 In/Sec	.097 G-s
1IH	.140 In/Sec	.199 G-s
1IP	.0038 In/Sec	
1IV	.262 In/Sec	.111 G-s
1IA	.053 In/Sec	.079 G-s

1OH	.120 In/Sec	.411 G-s
1OP	.0045 In/Sec	
1OV	.190 In/Sec	.224 G-s
1OA	.084 In/Sec	.111 G-s
2IH	.138 In/Sec	.273 G-s
2IP	.0014 In/Sec	
2IV	.299 In/Sec	.074 G-s
2IA	.143 In/Sec	.102 G-s
2OH	.226 In/Sec	.193 G-s
2OP	.0032 In/Sec	
2OV	.150 In/Sec	.058 G-s
2OA	.119 In/Sec	.076 G-s

AIRCMPBDRY - AIR COMPRESSOR B DRYER (28-Jul-25)

	OVERALL LEVEL	1K-20KHz
MOH	.134 In/Sec	.153 G-s
MOV	.066 In/Sec	.026 G-s
MIH	.055 In/Sec	.080 G-s
MIV	.035 In/Sec	.025 G-s
MIA	.070 In/Sec	.032 G-s

Clarification Of Vibration Units:

Acc	-->	G-s	RMS
Vel	-->	In/Sec	PK

As always, it has been a pleasure to serve Lemons East-Archaea Energy. If there are any comments or questions, do not hesitate to contact us.

Sincerely,



ISO Certified Vibration Analyst, Category III



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