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June 10th, 2025

North Shelby Plant Millington, TN

The following is a summary of findings from the June 2025 monthly vibration survey at the North Shelby site.

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

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

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

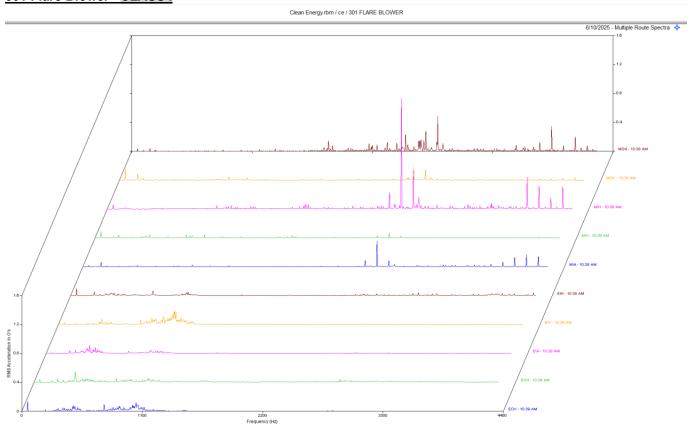
<u>Class III:</u> Defect (s) present that may cause failure in short term (less than 2 months). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

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

301 Flare Blower CLASS I

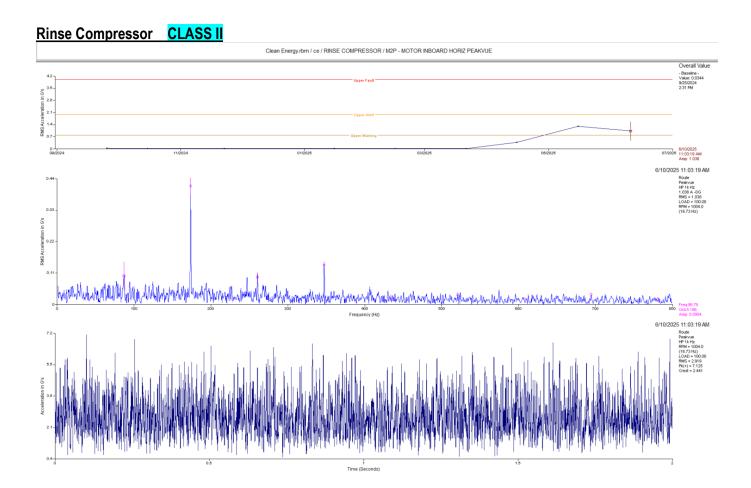


Observations:

Data above is the waterfall spectra of the motor and blower. There appears to be some non-synchronous peaks present in the motor spectra.

Recommendations:

Data is indicative of motor bearing defects. This issue appears to be at a low level at this time. We are monitoring this closely.



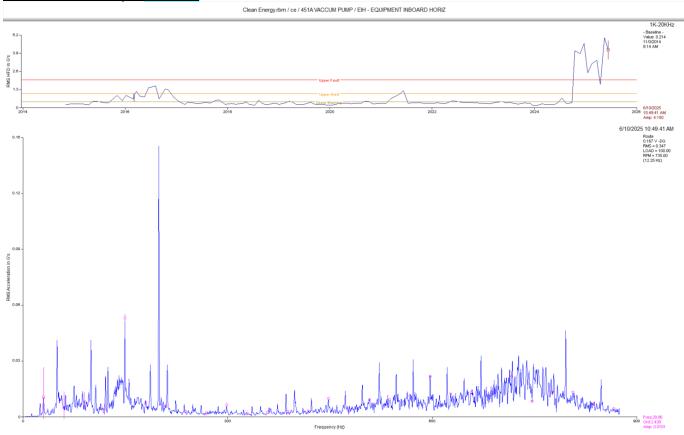
Observations:

Drive motor data shows some high frequency vibration. Motor is also making a squealing type noise. Peakvue data shows some harmonics at 5.1 orders of rpm which is likely a bearing defect fundamental. MIH data also shows waveform peak amplitude is around 7 g's.

Recommendations:

Vibration characteristics indicate a lube issue or bearing wear. Motor likely needs attention during next extended shutdown. We are monitoring this closely. Rated as a **CLASS II** defect for now.

451A Vacuum Pump CLASS II



Observations:

Data above is the pump inboard (drive end) horizontal. There appears to be some non-synchronous peaks present in the spectra. 1-20 Khz amplitude is also trending upward according to trend data.

Recommendations:

Data is indicative of pump bearing defects. Pump may also have some internal impeller wear. We are monitoring this closely.

Database: Clean Energy.rbm Area: millington plant

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
301 FLARE - 301 FLARE BLOWN		-May-25)
	OVERALL LEVEL .091 In/Sec	IK-ZUKHZ
МОН	.091 In/Sec	1.057 G-s
MOV	.280 In/Sec	
MIH	.133 In/Sec	
MIV	.178 In/Sec	.129 G-s
MIA	.040 In/Sec	.393 G-s
EIH	.188 In/Sec	.312 G-s
EIV	.088 In/Sec	.419 G-s
EIA	.007 III/Sec	.133 G-S
EOH	.141 In/Sec	
EOV	.167 In/Sec	.133 G-s
RINSE COMP - RINSE COMPRESSO	-	-May-25)
MOIT	OVERALL LEVEL .125 In/Sec	1K-ZUKHZ
MOH M1P	1.223 G-s	2.172 G-S
		1 600 0 -
MIH	.102 In/Sec	1.692 G-S
M2P	1.305 G-s	105.0
MIA	.109 In/Sec	
IIH	.074 In/Sec	.728 G-s
IIA	.115 In/Sec	.203 G-s
IOH	.099 In/Sec	.663 G-s
OIH	.079 In/Sec	
OIA	.128 In/Sec	.136 G-s
ООН	.097 In/Sec	.797 G-s
VAC COMP - VACUUM COMPRESS	SOR (15	-May-25)
MOH	OVERALL LEVEL .124 In/Sec	1.093 G-s
MIH	101 In/Sec	1 287 G-s
MIA	.058 In/Sec	.283 G-s
IIH	.051 In/Sec	.562 G-s
IIA	.071 In/Sec	
IOH	.170 In/Sec	
OIH	.084 In/Sec	.527 G-s
OIA	.120 In/Sec	.144 G-s
OOH	.086 In/Sec	
0011		
COOLFAN1 - COOLING FAN 1		-May-25)
	OVERALL LEVEL	1K-20KHz
MOH	.065 In/Sec	1.113 G-s
VOM	.209 In/Sec	.228 G-s
MIH	.033 In/Sec	.890 G-s
VIM	.033 In/Sec	.157 G-s
MIA	.051 In/Sec	.133 G-s
COOLFAN2 - COOLING FAN 2		-May-25)
	OVERALL LEVEL	1K-20KHz
мон	.049 In/Sec	.632 G-s
MOV	.062 In/Sec	.104 G-s
MIH	.048 In/Sec	.271 G-s
MIV	.064 In/Sec	.128 G-s
MIA	.068 In/Sec	.081 G-s
EIH	.049 In/Sec	.331 G-s
EIV	.068 In/Sec	.119 G-s
EIA	.095 In/Sec	.091 G-s
ЕОН	.059 In/Sec	.139 G-s

EOV .059 In/Sec .077 G-s

101A COMP	- 101A FEED COMPRESSOR	(15-May-25)
	OVERALL LEVEL	1K-20KHz
мон	.186 In/Sec	
	1.55 - /5	.235 G S
MIH	.165 In/Sec .081 In/Sec	.245 G-s
MIA	.081 In/Sec	.243 G-s
IIH	.240 In/Sec	1.373 G-s
IIA	215 Tn/Soc	1 2/9 C-s
	.213 111/360	1.248 G-s .762 G-s
IOH	.286 In/Sec	.762 G-s
OIH	.147 In/Sec	1.083 G-s
OIA	.338 In/Sec	.736 G-s
ООН	100 Tm/Sec	2.563 G-s
ООН	.109 In/Sec	2.563 G-S
HX132A FAN	- HX132A GAS OIL COOLER FAN	(15-May-25)
	OVERALL LEVEL	1K-20KHz
EIH	.040 In/Sec	
EOH	.053 In/Sec	.087 G-s
451A PIIMP	- 451A VACCUM PUMP	(15-May-25)
45111 10111		_
	OVERALL LEVEL	1K-20KHz
MOH	.077 In/Sec	.456 G-s
MOV	OVERALL LEVEL .077 In/Sec .072 In/Sec	.295 G-s
MIH	.085 In/Sec	.915 G-s
	.065 III/Sec	.915 G-S
VIM	.107 In/Sec	.167 G-s
MIA	.055 In/Sec	.368 G-s 5.023 G-s
EIH	139 In/Sec	5 023 G-s
EIV	.255 In/Sec	.953 G-s
EIA	.159 In/Sec .190 In/Sec	1.177 G-s
EOH	.190 In/Sec	.417 G-s
EOV		.159 G-s
EOV	.144 III/Sec	.159 G-S
HX453A FAN	- HX453A VAC PUMP OIL COOL FAN	(15-May-25)
	OVERALL LEVEL	1K-20KHz
MOH	.165 In/Sec	.085 G-s
МОН	.165 In/Sec	.065 G-S
MIH	.151 In/Sec	
МТП	.131 III/Bec	.069 G-s
MIII	.131 111/ 560	.069 G-s
	- 451B VACCUM PUMP	(15-May-25)
451B PUMP	- 451B VACCUM PUMP OVERALL LEVEL	(15-May-25) 1K-20KHz
	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec	(15-May-25) 1K-20KHz .485 G-s
451B PUMP	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec	(15-May-25) 1K-20KHz .485 G-s
451B PUMP MOH MOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s
451B PUMP MOH MOV MIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s
451B PUMP MOH MOV MIH MIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s
451B PUMP MOH MOV MIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s
451B PUMP MOH MOV MIH MIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s
451B PUMP MOH MOV MIH MIV MIA EIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec	1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .206 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .2150 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .2150 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .2150 In/Sec .150 In/Sec .150 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .2150 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .2150 In/Sec .2150 In/Sec .150 In/Sec .113 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH 451C PUMP	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH 451C PUMP MOH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .216 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec .210 In/Sec .210 In/Sec .210 In/Sec .210 In/Sec .210 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH 451C PUMP	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s
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451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH 451C PUMP MOH MOV MIH MIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .087 In/Sec .100 In/Sec .100 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .087 G-s .423 G-s .123 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MOV MIH MIV MIV MIA	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .687 G-s .423 G-s .123 G-s .099 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH 451C PUMP MOH MOV MIH MIV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .087 In/Sec .100 In/Sec .100 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .687 G-s .423 G-s .123 G-s .099 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MIV MIA MIV MIA EIH	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .190 In/Sec .190 In/Sec .144 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .113 In/Sec .087 In/Sec .100 In/Sec .101 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .087 G-s .423 G-s .123 G-s .099 G-s .629 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MIV MIA EIH MIV MIA EIH EIV EIZ EOH EOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .214 In/Sec .214 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec .210 In/Sec .2113 In/Sec .2114 In/Sec .2115 In/Sec .2115 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .637 G-s .423 G-s .123 G-s .099 G-s .629 G-s .147 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MIV MIA EIH EIV EIL EIL EOV HX451C PUMP	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .109 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .214 In/Sec .214 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .087 G-s .423 G-s .123 G-s .099 G-s .629 G-s .147 G-s .144 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MIV MIA EIH MIV MIA EIH EIV EIZ EOH EOV	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .026 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .214 In/Sec .214 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec .210 In/Sec .2113 In/Sec .2114 In/Sec .2115 In/Sec .2115 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .087 G-s .423 G-s .123 G-s .099 G-s .629 G-s .147 G-s .144 G-s
451B PUMP MOH MOV MIH MIV MIA EIH EIV EIA EOH EOV HX453B FAN MOH MIH MIV MIA EIH EIV EIL EIL EOV HX451C PUMP	- 451B VACCUM PUMP OVERALL LEVEL .041 In/Sec .067 In/Sec .055 In/Sec .055 In/Sec .026 In/Sec .109 In/Sec .190 In/Sec .166 In/Sec .144 In/Sec .214 In/Sec .214 In/Sec .206 In/Sec .214 In/Sec .214 In/Sec .214 In/Sec .216 In/Sec .217 In/Sec .218 In/Sec .219 In/Sec .219 In/Sec .210 In/Sec	(15-May-25) 1K-20KHz .485 G-s .131 G-s .698 G-s .234 G-s .124 G-s .450 G-s .100 G-s .104 G-s .631 G-s .154 G-s (15-May-25) 1K-20KHz .245 G-s .126 G-s (15-May-25) 1K-20KHz .419 G-s .087 G-s .423 G-s .123 G-s .099 G-s .629 G-s .147 G-s .144 G-s

		125	TP/SOC	1K-20K	nz C-s
MOH MIH		.123	In/Sec In/Sec	.356 .211	G-8 C-3
MIH		.097	III/Sec	.211	G-8
451D PUMP	- 451D VACCUM PUMP	,		(15-May-25)	
		OVERA	LL LEVEL	1K-20K	Hz
MOH		.055	In/Sec	1.234	G-s
MOV		.068	In/Sec	.240	G-s
MIH		.076	In/Sec	1.488 .486	G-s
MIV					
MIA				.288	
EIH		.174	In/Sec	.654 .194	G-s
EIV		.120	In/Sec	.194	G-s
EIA				.144	
EOH		.168	In/Sec	. 855	G-s
EOV		.159	In/Sec	.300	G-s
HX453D FAN	- HX453D VAC PUMP	OIL CO	OL FAN	(15-May-25)	
				1K-20K	Hz
мон		.199	In/Sec	.125	G-s
MIH		.164	In/Sec	.103	G-s
506B COMP	- 506B PRODUCT COM				
				1K-20K	
MOH		.050	In/Sec	. 232	G-s
MIH		.093	In/Sec In/Sec	.175 .246	G-s
MIA		.058	In/Sec	. 246	G-s
IIH				.980	
		.130	In/Sec	1.074	G-s
IIA				0 601	G-s
IOH		.197	In/Sec	2.631	
		.197 .246		2.631 1.295	
IOH		.197 .246 .127	In/Sec	1.364	G-s
OIH		.197 .246 .127	In/Sec		G-s
IOH OIH OIA OOH	- HX507B GAS COOL	.197 .246 .127 .211	In/Sec In/Sec	1.364 1.377 (15-May-25)	G-s G-s
IOH OIH OIA OOH		.197 .246 .127 .211	In/Sec In/Sec	1.364 1.377 (15-May-25) 1K-20K	G-s G-s Hz
IOH OIH OIA OOH		.197 .246 .127 .211 FAN OVERAI	In/Sec In/Sec LL LEVEL In/Sec	1.364 1.377 (15-May-25) 1K-20K	G-s G-s Hz G-s
IOH OIH OIA OOH		.197 .246 .127 .211 FAN OVERAI	In/Sec In/Sec LL LEVEL In/Sec	1.364 1.377 (15-May-25) 1K-20K	G-s G-s Hz G-s

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

Sincerely,

ISO Certified Vibration Analyst, Category III

Kevin W. Mozwell

--> In/Sec





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