



**QualiTest® Diagnostics**

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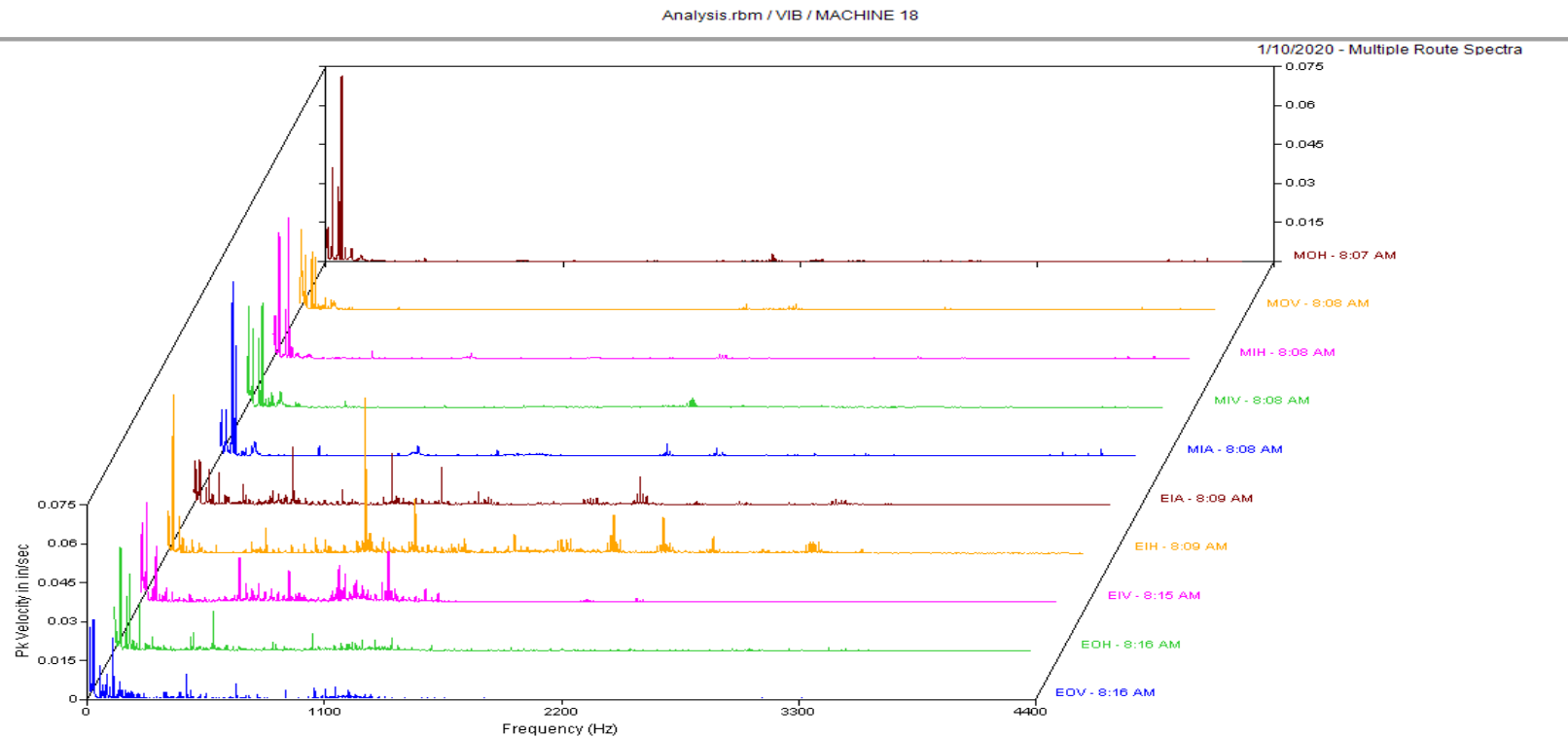
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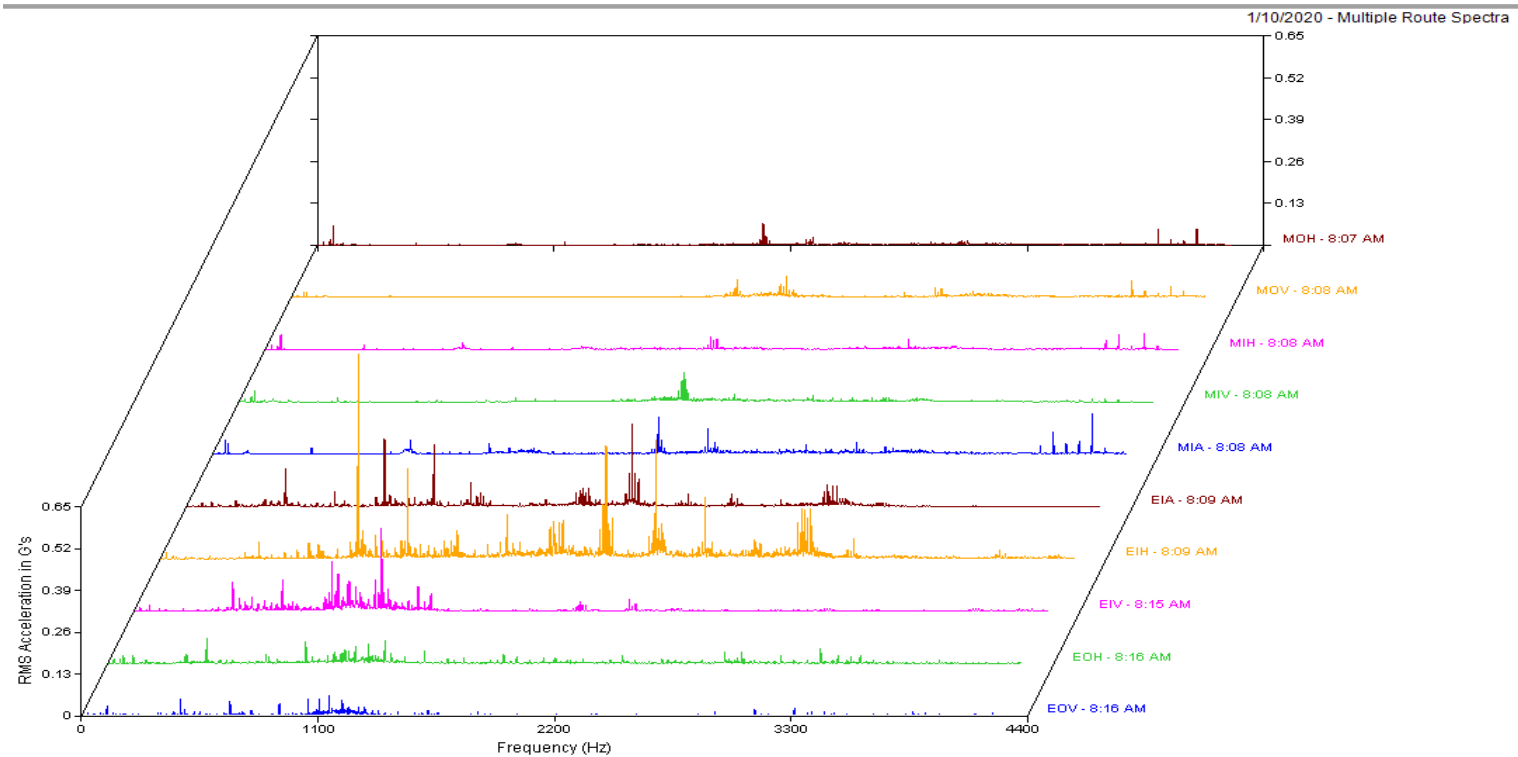
[www.gohispeed.com](http://www.gohispeed.com)

January 14, 2020

Richard Davenport  
Lanxess

The following is a summary of findings from the vibration analysis on the Grinder Mill. Please let us know if there are any questions or comments.





Data plots above are the motor and grinder. The first waterfall plot is in velocity inches per second while the second waterfall is acceleration G's. Motor bearings are labeled as M and grinder bearings are labeled as E. Notice that the inboard grinder bearing spectra is showing non-synchronous peaks which are indications of bearing faults. Outboard does not appear to have any significant non-synchronous vibrations. Unit was running at 30 Hz. during testing. Overall amplitudes were low at this speed and seem to be within acceptable limits. In conclusion, the drive end grinder bearing does show signs of defects and should be changed at the next opportunity.

Below are velocity and 1-20 KHz acceleration amplitudes. Notice that EIH is at 1.13 G's which is at a low alarm level for that type of bearing.

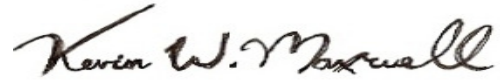
Abbreviated Last Measurement Summary  
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MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----
MACHINE 18 Lanxess Grinder Mill		(10-Jan-20)
	OVERALL LEVEL 1K-20KHz	
MOH	.103 In/Sec	.195 G-s
MOV	.065 In/Sec	.268 G-s
MIH	.091 In/Sec	.210 G-s
MIV	.085 In/Sec	.237 G-s
MIA	.098 In/Sec	.447 G-s
EIA	.061 In/Sec	.538 G-s
EIH	.114 In/Sec	1.137 G-s
EIV	.088 In/Sec	.374 G-s
EOH	.077 In/Sec	.287 G-s
EOV	.068 In/Sec	.229 G-s
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Clarification Of Vibration Units:		
Acc	--> G-s	RMS
Vel	--> In/Sec	PK

**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.

As always, it has been a pleasure to serve Lanxess corp. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads "Kevin W. Maxwell". The signature is fluid and cursive, with the first name "Kevin" and last name "Maxwell" clearly legible.

**ISO Certified Vibration Analyst, Category III**



**QualiTest® Diagnostics**

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