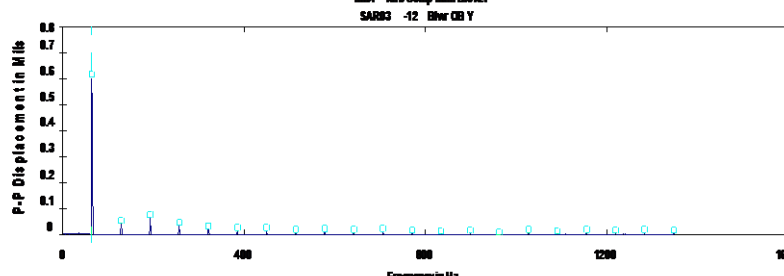
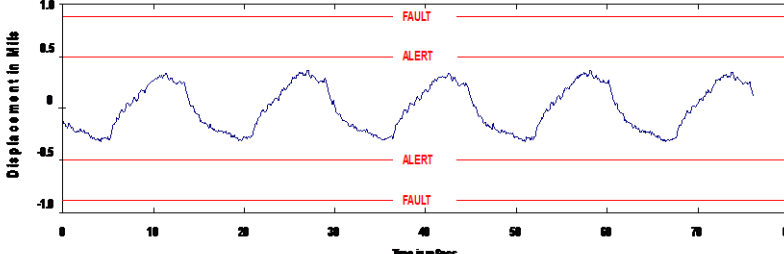
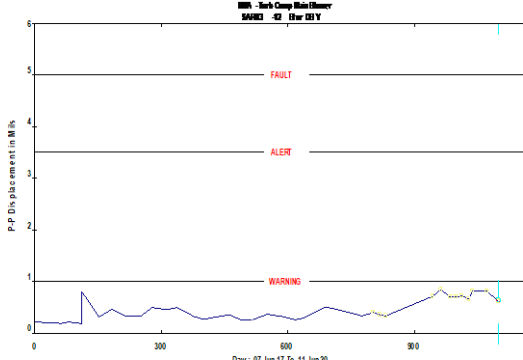




Client	Lucite	Survey Date	6-15-20
Location	Memphis, TN	Report Date	6-19-20
Machine	SAR 03 TURBO COMPRESSOR MAIN BLOWER	QMS No.	142692
Component	POINT 12 BLOWER OUTBOARD Y	Analyst	DWS

Defect Rating for this machine	NA
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	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.

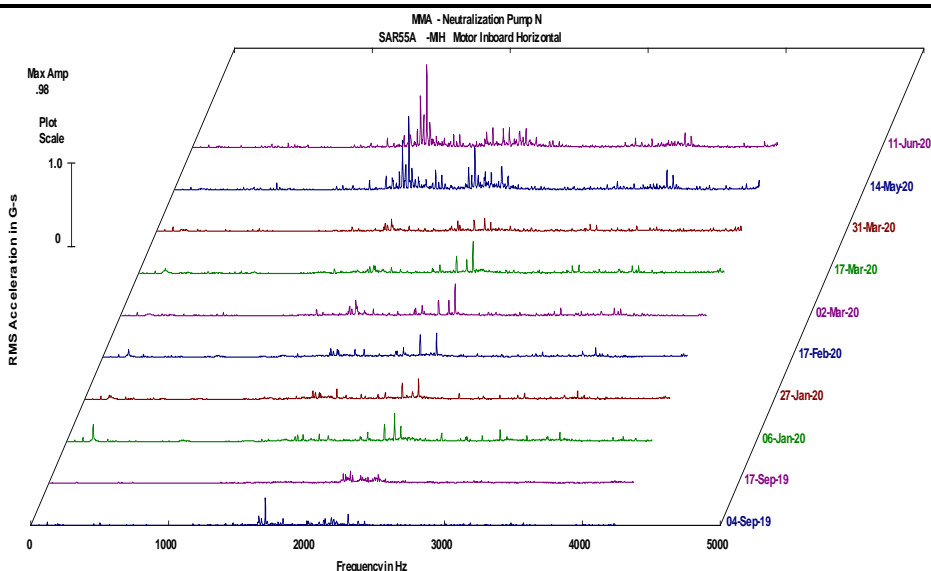
Vibration Data	Analysis
<p>MM - Turb Comp Main Blower SAR03 -12 Blwr CB Y</p>  <p>Route Spectrum 11-Jun-20 08:46:07 OVERALL= .6157 D-DG P-P = .6142 LOAD =3920.0 RPM = 3847. (64.12 Hz)</p>  <p>Route Waveform 11-Jun-20 08:46:07 P-P = .6215 PK[4] = .3716/3233 CRE STF= 1.69</p> <p>Freq: 64.13 Ordr: 1.000 Spec: .605</p>	<p>P-P waveform shows near 0.7 mils for this point.</p>

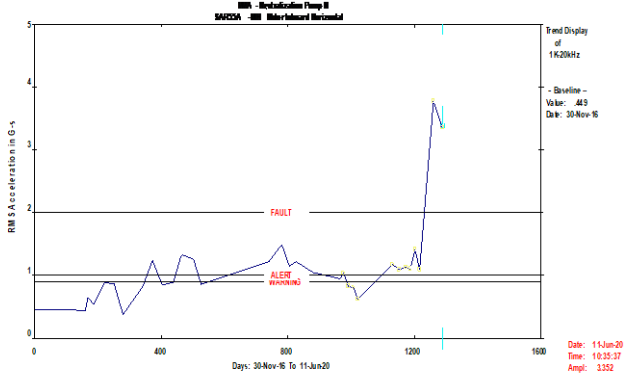
Discussion / Repair recommendations	Trend Data
<p>A 1x RPM vibration dominated the data at near 0.7 mils p-p. The trend is slightly down this survey. We are taking this unit off the reported machine list, but still keep it as a critical unit and watch it closely.</p>	 <p>Trend Display of Overall Value</p> <p>- Baseline - Value: .21 Date: 07-Jun-17</p> <p>Date: 11-Jun-20 Time: 08:46:10 Ampl: .616</p>



Client	Lucite	Survey Date	6-15-20
Location	Memphis, TN	Report Date	6-19-20
Machine	SAR55A NORTH NEUTRALIZATION PUMP	QMS No.	142692
Component	MOTOR BEARING	Analyst	DWS

Defect Rating for this machine	Class II
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	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.

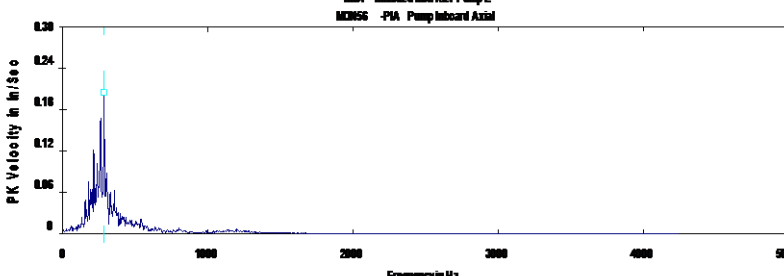
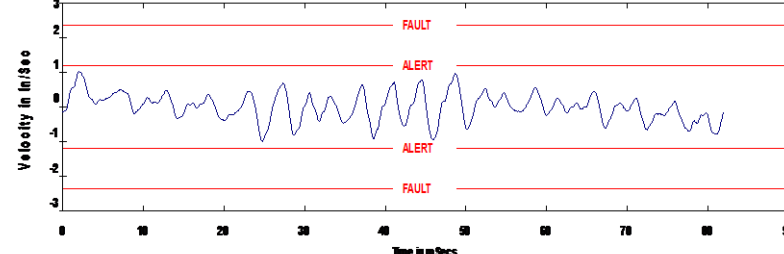
Vibration Data	Analysis
<p>MMA - Neutralization Pump N SAR55A -MH Motor Inboard Horizontal</p>  <p>Max Amp .98 Plot Scale 1.0 RMS Acceleration in G-s Frequency in Hz</p> <p>11-Jun-20 14-May-20 31-Mar-20 17-Mar-20 02-Mar-20 17-Feb-20 27-Jan-20 06-Jan-20 17-Sep-19 04-Sep-19</p>	<p>Bearing natural frequencies are apparent in the spectrum.</p>

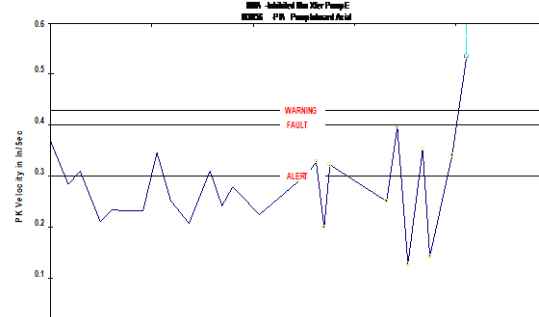
Discussion / Repair recommendations	Trend Data
<p>The data continues to indicate distress in the inboard motor bearing. Still recommend replacing the motor in the next few months or possibly sooner. Rated a Class II Defect for now.</p>	 <p>Trend Display of 1K20KHz - Baseline - Value: .445 Date: 30-Nov-16</p> <p>FAULT ALERT RECOMMEND</p> <p>RMS Acceleration in G-s Days: 30-Nov-16 To 11-Jan-20</p> <p>Date: 11-Jun-20 Time: 10:35:37 Ampl: 3.552</p>



Client	Lucite	Survey Date	6-15-20
Location	Memphis, TN	Report Date	6-19-20
Machine	MON 56 INHIBITED TRANSFER PUMP E	QMS No.	142692
Component		Analyst	DWS

Defect Rating for this machine	Class II
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	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.

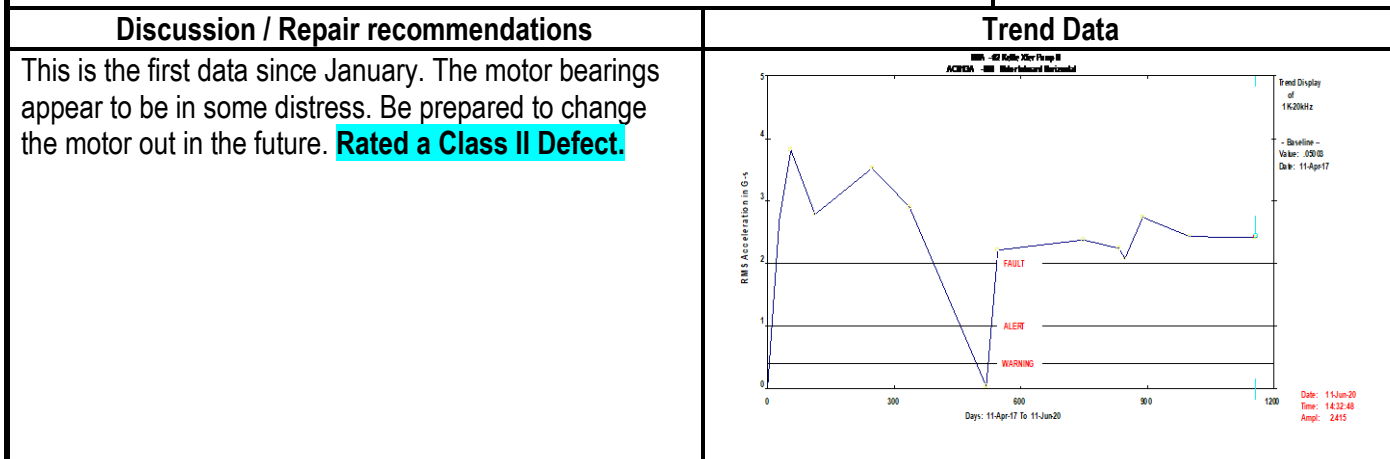
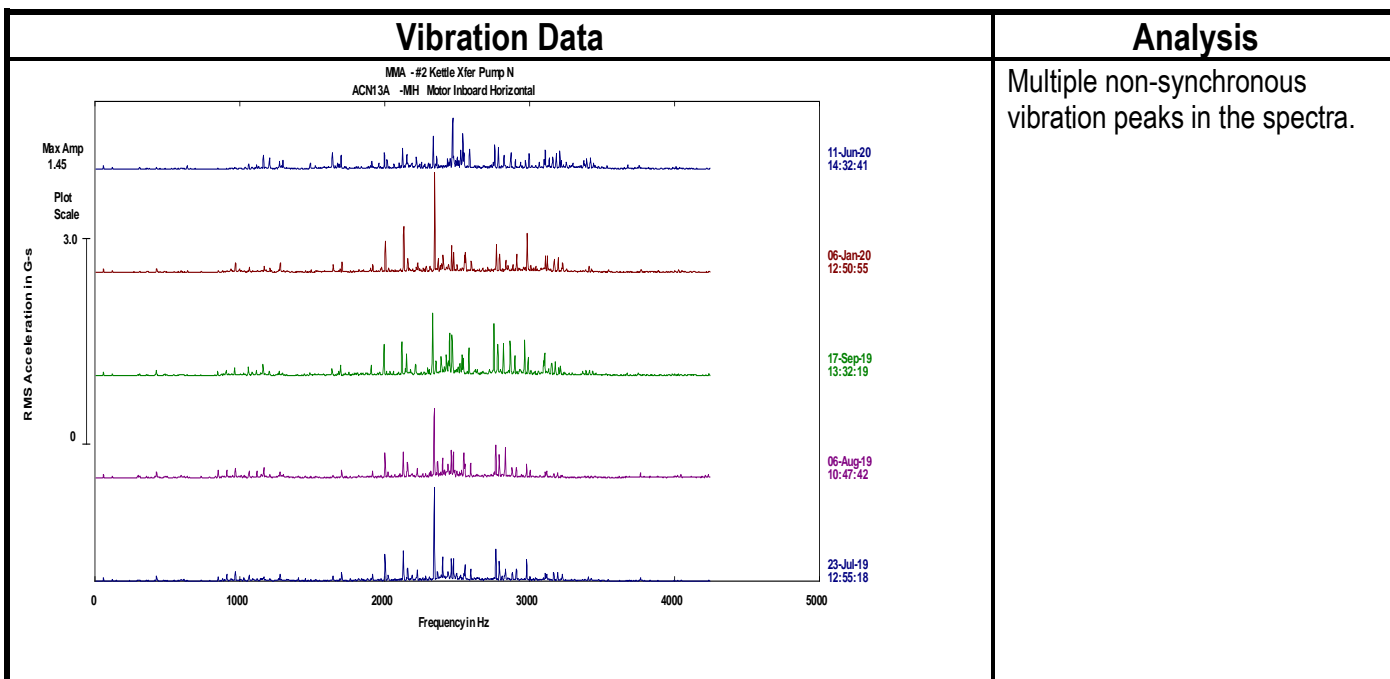
Vibration Data	Analysis
<p>MON - Inhibited Mon Xfer Pump E MON56 - P/A Pump Inboard Axial</p>  <p>Route Spectrum 11-Jun-20 13:02:01 OVERALL= 5327 V-DG PK = .5312 LOAD = 100.0 RPM = 3582 (59.71 Hz)</p>  <p>Route Waveform 11-Jun-20 13:02:01 PK = .5569 PK(4) = 1.0119867 CRE STP= 2.57</p> <p>Freq: 284.22 Ordr: 4.760 Spec: 200</p>	<p>Increase in vibrations this survey.</p>

Discussion / Repair recommendations	Trend Data
<p>The overall vibration continues to zigzag up and down; however, the pump axial vibration has jumped 0.5"/sec velocity peak and consists mostly of noise around 2-10 orders of shaft speed. We suspect recirculation caused by either pump wear or not running near the optimal point on the curve. Inspect as time allows. Rated A Class II Defect.</p>	 <p>Trend Display of Overall Value Baseline - Value: .368 Date: 13-Mar-18</p> <p>Days: 13-Mar-18 To 11-Jun-20</p> <p>Date: 11-Jun-20 Time: 13:01:59 Ampl: .533</p>



Client	Lucite	Survey Date	6-15-20
Location	Memphis, TN	Report Date	6-19-20
Machine	ACN13A #2 Kettle transfer pump N	QMS No.	142692
Component	Motor bearings	Analyst	DWS

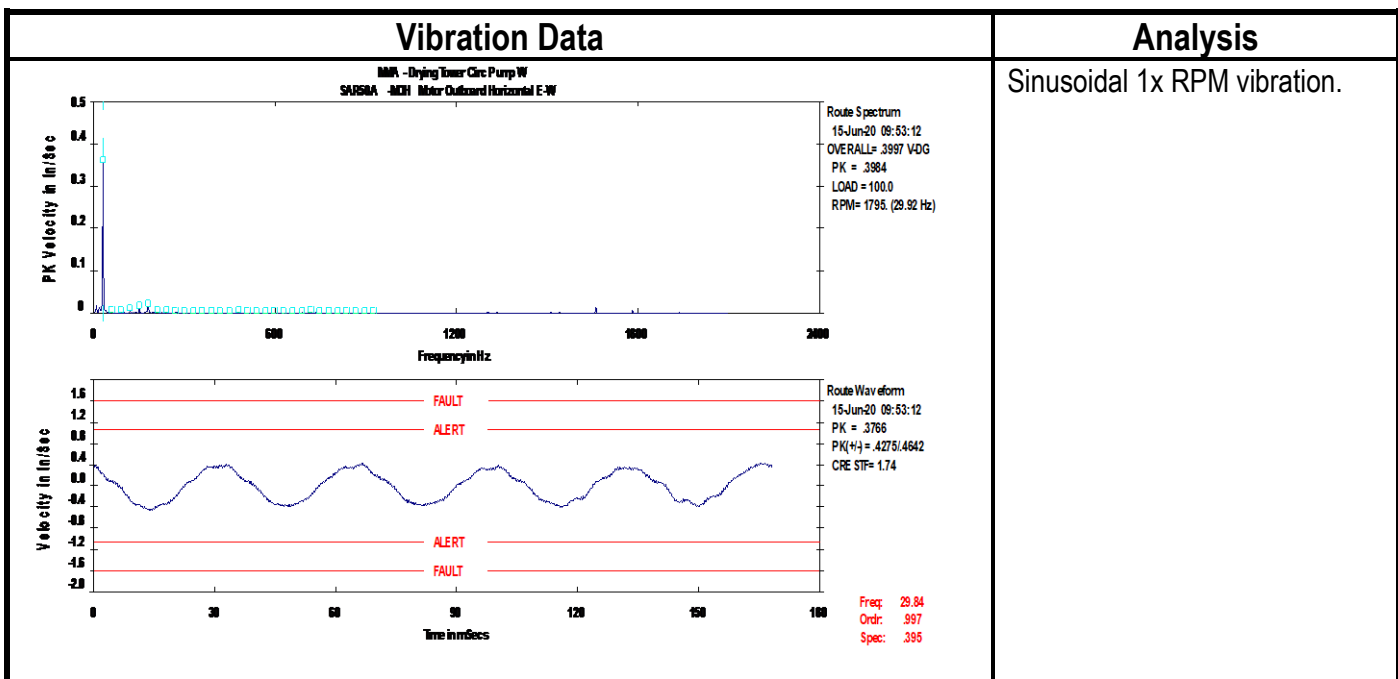
Defect Rating for this machine	Class II
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	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.

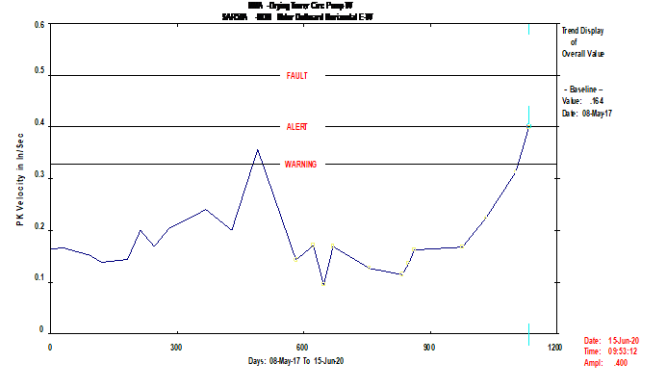




Client	Lucite	Survey Date	6-15-20
Location	Memphis, TN	Report Date	6-19-20
Machine	SAR50A Drying Tower Circulation Pump W	QMS No.	142692
Component	Unit	Analyst	DWS

Defect Rating for this machine	Class I
Defect Rating System	
Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring.	Class III: Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.
Class II: Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor.	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.



Discussion / Repair recommendations	Trend Data
<p>The outboard end of the motor is vibrating at shaft speed. Inspect the motor and pump for loose fasteners or coupling and motor cooling fan defects. Have the alignment checked also. Rated a Class I Defect.</p>	 <p>Trend Display of Overall Value</p> <p>Baseline Value: .64 Date: 08-May-17</p> <p>Date: 15-Jun-20 Time: 09:53:12 Ampl: .400</p>