

April 7, 2021

Blues City Brewery

Subject: April vibration service

Most of the machines surveyed were found to be in good condition with the exception of the following:

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.

<u>Class IV;</u> 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.

This completes our assessment of your equipment for this survey. Thank you for your business and don't hesitate to call if you have any comments or questions.

Sincerely,

David W Shook

David W. Shook Senior Reliability Specialists *Hi-Speed* Industrial Service dshook@gohispeed.com

7030 Ryburn Drive Millington, TN 38053 P. 901-873-5300 F. 901-873-5301

Reportable equipment

Boiler Feed Water Pump Middle

The Bottom of the pump has a shaft speed vibration at just over 0.5"/second velocity peak. We suspect wear in the pump, debris/build up/damage, or possibly a coupling issue. Inspect as time allows. **Rated a Class II Defect.**

Boiler Fan 2

Motor vibrations are still high for the motor. Velocity overall is at 1"/second peak. Ensure all foot bolts on the motor and all fan bearing bolts are torqued and there is no soft foot. This is more than likely a fan imbalance that is transferring through the motor. Still recommend having fan pulled and shop balanced on a balance stand. **Rated as a Class III Defect.**

Boiler 3 Fan, Motor Bearings

Bearing defect frequencies are present in the motor vibration data. The acceleration trend has increased this survey. The overalls are above 4 g's RMS. Expect to change out the bearings in the future. **Rated a Class II Defect.**

Boiler 3 Fan, Fan Bearings

The inboard fan bearing shows strong peaks in the acceleration spectrum up around 2500 Hz with peaks around 114 Hz apart. Vibrations are over 7 g's RMS. Expect to change out the bearings in the future. **Rated a Class II Defect.**

Chilled Water Makeup Pump 1

The inboard measurements have risen this survey. Check the unit coupling and fasteners. Have the alignment checked as time allows. **Rated a Class I Defect.**

The axial motor 1x vibrations for this unit has increased dramatically to over 1"/second velocity peak. We recommend inspecting all foot bolts, the coupling for wear and have a laser alignment preformed as soon as possible. Rated as a Class IV Defect.

RO Water Pump 2

This unit still has a vibration at what appears to be vane pass, (5x RPM, 127.5 HZ). The vibrations are over 0.4"/sec velocity peak in the time waveform now. There could be wear in the pump, or there could be a flow issue. We recommend further inspection and adjustments of flow related controls, filters, screens, or piping. **Rated a Class II Defect.**

2nd Floor South Hot Water Pump

Shaft speed vibration still dominates the motor vibration data at near $\frac{1}{2}$ " per second velocity peak. A 2x RPM vibration is also present. Inspect the unit base, structure, coupling and fasteners for issues. Have the shaft alignment checked too. **Rated a Class II Defect.**

Sugar Tank Pump V3

The gearbox input vibration has a dominant peak at what looks to be the gear mesh frequency. Perform an oil analysis and be prepared to change it out this year if needed. **Rated a Class II Defect.**

Filter Cellar Chill Water Circulator Pump 1

The motor air gap issue is still present. Possible causes are soft foot, eccentric rotor, eccentric bearing bores, electrical imbalance. **Rated a Class II Defect.**

G Cellar Cold Glycol Pump 4

pump bearings have signs of early defects, or there is slight cavitation in the pump. No action required at this time other than ensuring the bearings have lubrication. **Rated a Class I Defect.**

G Cellar 128 NANO Pump

Vibrations at shaft speed are still excessive. Ensure all fasteners are tight and support structure is sound. Check for pipe strain. Make sure coupling is in good shape and shaft alignment is precise. **Rated a Class II Defect.**

G Cellar 129 NANO Pump

Motor bearings have signs of early defects. No action required at this time other than ensuring the bearings have lubrication. **Rated a Class I Defect.**

Administration HVAC Hot Water Pump

Motor vibration is over ½"/second velocity peak overall. There could still be an alignment or coupling issue. Inspect the coupling and check the shaft alignment. **Rated a Class II Defect.**

	Abbreviated Last M ******************	-	
	e: Blues_city.rbm h: POWER HOUSE Date: 07-Apr-21		
MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
AIR COMP 3 - COMPRESS	OR #3 - 250HP OVERALL LEVEL	(07-Apr-21) 1-20 KHZ	

11	.138 In/Sec	1.763 G-s	1792.0 RPM
12	.168 In/Sec	2.022 G-s	
21	.239 In/Sec	3.996 G-s	
22	.139 In/Sec	1.476 G-s	
23	.096 In/Sec		
71	.189 In/Sec	2.347 G-s	3655.7 RPM
72	.096 In/Sec		5055.7 MIM
73	.216 In/Sec		
81	.138 In/Sec	1.533 G-s	
	.138 IN/Sec	1.555 G-S	
82			
83	.177 In/Sec	1.590 G-s	
AIR COMP 5 - COMPRES		(07-Apr-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.175 In/Sec	.521 G-s	1788.0 RPM
12	.066 In/Sec	.902 G-s	
13	.077 In/Sec	.388 G-s	
21	.122 In/Sec	.498 G-s	
22	.066 In/Sec	.254 G-s	
23	.096 In/Sec	.379 G-s	
71	108 Tn/Sec	812 G-s	1785.0 RPM
72	.084 In/Sec	.417 G-s	
73	.158 In/Sec	.585 G-s	
81	.145 In/Sec	.720 G-s	
82	.050 In/Sec	1.060 G-s	
83	.105 In/Sec	.900 G-s	
83	.105 11/568	.900 G-S	
		07 7 7 7 7 7 1 1	
BFWPMIDLE2 - BOILER		• •	
	OVERALL LEVEL		
11	.233 In/Sec	.567 G-s	3540.0 RPM
12	.147 In/Sec		
21	.085 In/Sec	.334 G-s	
22	.097 In/Sec	.419 G-s	
23	.151 In/Sec	.490 G-s	
71	.378 In/Sec	1.288 G-s	
72	.217 In/Sec	.656 G-s	
73	.079 In/Sec	1.557 G-s	
81	.552 In/Sec	1.924 G-s	
82	.096 In/Sec	.766 G-s	
BFWPSOUTH1 - BOILER	FEED WATER PUMP S	(07-Apr-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.072 In/Sec	.240 G-s	3540.0 RPM
12	.134 In/Sec	.411 G-s	551010 1411
21			
~ ~ ~	213 Tr/Sec	368 6-8	
22	.213 In/Sec	.368 G-s	
22	.087 In/Sec	.426 G-s	
23	.087 In/Sec .149 In/Sec	.426 G-s .088 G-s	
23 71	.087 In/Sec .149 In/Sec .322 In/Sec	.426 G-s .088 G-s 1.126 G-s	
23 71 72	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s	
23 71 72 73	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s	
23 71 72 73 81	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .462 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s	
23 71 72 73	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s	
23 71 72 73 81 82	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .065 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s	
23 71 72 73 81	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .065 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s .602 G-s (07-Apr-21)	
23 71 72 73 81 82	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .065 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s .602 G-s	
23 71 72 73 81 82	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .462 In/Sec .065 In/Sec	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s .602 G-s (07-Apr-21)	1780.0 RPM
23 71 72 73 81 82 BOILERFAN2 - BOILER	.087 In/Sec .149 In/Sec .322 In/Sec .153 In/Sec .060 In/Sec .462 In/Sec .065 In/Sec FAN #2 OVERALL LEVEL	.426 G-s .088 G-s 1.126 G-s 1.170 G-s 1.090 G-s .814 G-s .602 G-s (07-Apr-21) 1-20 KHZ	1780.0 RPM

21	1.023 In/Sec	.132 G-s	
22	.595 In/Sec	.217 G-s	
23	.367 In/Sec	.162 G-s	
BOILERFAN3	- BOILER FAN #3 - 1780 RPM	• •	
	OVERALL LEVEL		
11		2.063 G-s	1780.0 RPM
12	.119 In/Sec	1.570 G-s	
21	.114 In/Sec	2.893 G-s	
22	.227 In/Sec		
23	.090 In/Sec	1.113 G-s	
71	.167 In/Sec		
72	.103 In/Sec		
73		1.944 G-s	
81	.240 In/Sec	.584 G-s	
		(07 - 07)	
CR PUMP 1	- CARBON RECIRC PUMP	(07-Apr-21)	
	OVERALL LEVEL	1-20 KHZ	2545 0 554
11	.046 In/Sec	.145 G-s	3545.0 RPM
12	.058 In/Sec	.129 G-s	
21	.053 In/Sec	.140 G-s	
22	.065 In/Sec		
23	.109 In/Sec		
71	.036 In/Sec		
72	.033 In/Sec		
73	.038 In/Sec		
81		.152 G-s	
82	.028 In/Sec	.078 G-s	
MAKEUP #1	- CHILLED WATER MAKEUP PUN	(D 1 (07 3mm 21)	
MAREUP #1			
11	OVERALL LEVEL .162 In/Sec		3600.0 RPM
12	.102 10/500	. 30/ G-S	JOUU.U RPM
	122 Tp/Soc		
	.122 In/Sec	1.035 G-s	
21	.218 In/Sec	1.035 G-s .657 G-s	
21 22	.218 In/Sec .174 In/Sec	1.035 G-s .657 G-s .546 G-s	
21 22 23	.218 In/Sec .174 In/Sec .202 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s	
21 22 23 71	.218 In/Sec .174 In/Sec .202 In/Sec 407 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s	
21 22 23 71 72	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s	
21 22 23 71 72 73	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s	
21 22 23 71 72 73 81	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s	
21 22 23 71 72 73	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s	
21 22 23 71 72 73 81 82	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s	
21 22 23 71 72 73 81 82	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21)	
21 22 23 71 72 73 81 82 SW PUMP 8	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ	
21 22 23 71 72 73 81 82 SW PUMP 8 11	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s	3545.0 RPM
21 22 23 71 72 73 81 82 SW PUMP 8 11 12	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .738 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .430 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .738 G-s .599 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec 1.164 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .738 G-s .599 G-s .257 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec 1.164 In/Sec .304 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .738 G-s .599 G-s .257 G-s .586 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72 73	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec .096 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s .798 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72 73 81	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec .096 In/Sec .145 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s .798 G-s .697 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72 73	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec .096 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s .798 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72 73 81	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec .096 In/Sec .145 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s .798 G-s .697 G-s .268 G-s	
21 22 23 71 72 73 81 82 SW PUMP 8 11 12 21 22 23 71 72 73 81 82	.218 In/Sec .174 In/Sec .202 In/Sec .407 In/Sec .262 In/Sec .316 In/Sec .316 In/Sec .232 In/Sec - SERVICE WATER PUMP 8 OVERALL LEVEL .140 In/Sec .475 In/Sec .164 In/Sec .354 In/Sec .304 In/Sec .258 In/Sec .145 In/Sec .156 In/Sec	1.035 G-s .657 G-s .546 G-s .285 G-s .229 G-s .376 G-s .052 G-s .316 G-s .372 G-s (07-Apr-21) 1-20 KHZ .190 G-s .327 G-s .327 G-s .599 G-s .257 G-s .586 G-s .566 G-s .798 G-s .697 G-s	

11		.130	In/Sec	. 625	G-s	3545.0 RPM
12		.162	In/Sec	.490	G-s	
21		.133	In/Sec	.586		
22		.342	In/Sec	.796	G-s	
23		.159	In/Sec	.369	G-s	
71		.435	In/Sec	1.089	G-s	
72		.443	In/Sec	.556	G-s	
73			In/Sec			
81			In/Sec			
82			In/Sec	. 638	G-s	
AMMCOMP 2	- AMMON	IA COMP -	#2	(07-	Apr-21)	
		OVERA	LL LEVEL			
11			In/Sec			3592.0 RPM
12			In/Sec			
13			In/Sec	097	C-s	
21			In/Sec	.148	G-s	
22			In/Sec	.075	G-s	
23			In/Sec	.133	G-s	
71			In/Sec	.863	G-s	
72			In/Sec			
72			In/Sec		G-8	
81			In/Sec In/Sec	.666		
82			In/Sec In/Sec	. 695		
82 83			In/Sec In/Sec			
			In/Sec In/Sec	.300	G-5 C-0	
71F 725			•	.735 .805	G-S C c	
72F			In/Sec			
73F		.260	In/Sec	. 493	G-S	
81F		.180	In/Sec			
82F			In/Sec	.551		
83F		.246	In/Sec	.361	G-s	
		Vibration	 Ilni+e·			
Clarifica		Vibration				
Clarifica Acc	>	G-s	PK			
Clarifica Acc Vel	>	G-s			Abl	breviated Last Measureme
Clarifica Acc	>	G-s In/Sec	PK	******	-	
Clarifica Acc Vel	> >	G-s In/Sec	PK PK * * * * * * * * * * *		-	
Clarifica Acc Vel	> > Data	G-s In/Sec ******* base: Blue	PK PK ********** es_city.rb		-	
Clarifica Acc Vel	> > Data Stat	G-s In/Sec ******* base: Blue	PK PK *********** es_city.rb ER FLOORS	m	-	
Clarifica Acc Vel Summary	> > Data Stat Repo	G-s In/Sec ******* base: Blue ion: UPP rt Date:	PK PK *********** es_city.rb ER FLOORS 07-Apr-21	om 14:02	*****	
Clarifica Acc Vel	> > Data Stat Repo	G-s In/Sec ******* base: Blue ion: UPP rt Date:	PK PK *********** es_city.rb ER FLOORS	om 14:02	-	
Clarifica Acc Vel Summary MEASUREMENT	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL 	m 14:02 HFD / 	******** VHFD	***
Clarifica Acc Vel Summary MEASUREMENT	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL	m 14:02 HFD / 	******* VHFD Apr-21)	***
Clarifica Acc Vel Summary MEASUREMENT	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU	m 14:02 HFD / 	******* Apr-21) Hz	***
Clarifica Acc Vel Summary MEASUREMENT 	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL .108	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL	m 14:02 HFD / MP (07- 1-20 K	******* VHFD Apr-21) Hz G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL .108 .398	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec	m 14:02 HFD / MP (07- 1-20 K .394	******* VHFD Apr-21) HZ G-s G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11 12	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL .108 .398 .148	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec In/Sec	M 14:02 HFD / MP (07- 1-20 K .394 .795	******* VHFD Apr-21) HZ G-s G-s G-s G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11 12 21	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL OVERAL LOOR S. HO OVERAL .108 .398 .148 .359	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec In/Sec In/Sec	M 14:02 HFD / MP (07- 1-20 K .394 .795 .695	******* VHFD Apr-21) HZ G-s G-s G-s G-s G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11 12 21 22	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL OVERAL LOOR S. HO OVERAL .108 .398 .148 .359 .458	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec In/Sec In/Sec In/Sec	M 14:02 HFD / MP (07- 1-20 K .394 .795 .695 .555	******* VHFD Apr-21) HZ G-s G-s G-s G-s G-s G-s G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11 12 21 22 23	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blue ion: UPP rt Date: OVERAL LOOR S. HO OVERAL .108 .398 .148 .359 .458 .097	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec	MP (07- 1-20 K .394 .795 .695 .555 .623	******* VHFD Apr-21) HZ G-s G-s G-s G-s G-s G-s G-s G-s	*** MACHINE SPEED
Clarifica Acc Vel Summary MEASUREMENT 2SHWP 11 12 21 22 23 71	> > Data Stat Repo POINT	G-s In/Sec ******* base: Blud ion: UPP rt Date: OVERAL LOOR S. HO OVERAL .108 .398 .148 .359 .458 .097 .132	PK PK ********** es_city.rb ER FLOORS 07-Apr-21 L LEVEL T WATER PU LL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	MP (07- 1-20 K .394 .795 .695 .555 .623 .855	******* VHFD Apr-21) HZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	*** MACHINE SPEED

82 .070 In/Sec .796 G-s _____ Clarification Of Vibration Units: --> G-s PK Acc --> In/Sec PK Vel Abbreviated Last Measurement Summary ********************************* Database: Blues_city.rbm Station: BREWING 1ST FLOOR Report Date: 07-Apr-21 14:02 MEASUREMENT POINT OVERALL LEVEL HFD / VHFD MACHINE SPEED _____ _____ -----_____ *** NO DATA Was Found That Meets the Report Specification *** Abbreviated Last Measurement Summary ********************************** Database: Blues_city.rbm Station: BREWING BASEMENT Report Date: 07-Apr-21 14:02 MEASUREMENT POINT OVERALL LEVEL HFD / VHFD MACHINE SPEED _____ ----------_____ KCP1 - KETTLE CIRC PUMP 1 (07-Apr-21)
 OVERALL LEVEL
 1-20 KHZ

 .094 In/Sec
 1.643 G-s

 .016 In/Sec
 4.767 G-s
1182.0 RPM 11 12 .083 In/Sec .021 In/Sec .029 In/Sec 1.511 G-s 21 1.223 G-s 22 .949 G-s 23 .266 G-s .050 In/Sec 71 .227 G-s .127 G-s .077 In/Sec 72 .030 In/Sec 73 .025 In/Sec .121 G-s 81 .089 G-s 82 .023 In/Sec _____ Clarification Of Vibration Units: Acc --> G-s PK Vel --> In/Sec PK Abbreviated Last Measurement Summary ********************************** Database: Blues_city.rbm Station: GRAIN TRANSFER Report Date: 07-Apr-21 14:02 OVERALL LEVEL HFD / VHFD MACHINE SPEED MEASUREMENT POINT _____ *** NO DATA Was Found That Meets the Report Specification *** Abbreviated Last Measurement Summary *******************************

	Station:	: Blues_city.rb SUGAR PUMPS ate: 07-Apr-21		
MEASUREMENT	-	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
V3 -	SUGAR TAN	K VIKING PUMP #3	(07-Apr-21)	
v5	SUGAR IAR		1-20 KHZ	
11		.100 In/Sec	.333 G-s	1750.0 RPM
12		.199 In/Sec	.217 G-s	
21		.067 In/Sec	.783 G-s	
22		.138 In/Sec	.313 G-s	
23		.146 In/Sec	407 C-s	
31		.241 In/Sec	3.749 G-s	
32		.182 In/Sec	1.249 G-s	
33		.113 In/Sec	1.015 G-s	
61		.231 In/Sec	.762 G-s	
62		.185 In/Sec		
63		.114 In/Sec	.614 G-s	
71		.210 In/Sec	.499 G-s	
72		.120 In/Sec	.119 G-s	
73		.097 In/Sec	.307 G-s	
81		.233 In/Sec	.155 G-s	
82		.170 In/Sec	.118 G-s	
v4 -	SUGAR TAN	K VIKING PUMP #4	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ	
11		.055 In/Sec	.330 G-s	1750.0 RPM
12		.112 In/Sec	.208 G-s	
21		.151 In/Sec	.515 G-s	
22		.251 In/Sec	.586 G-s	
23		.168 In/Sec	.788 G-s	
31		.116 In/Sec	.157 G-s	
32		.161 In/Sec	.515 G-s	
33		.332 In/Sec	.421 G-s	
61		.099 In/Sec	.717 G-s	
62		.125 In/Sec	.284 G-s	
63		.318 In/Sec	.454 G-s	
71		.159 In/Sec	.149 G-s	
72		.308 In/Sec	.273 G-s	
73		.154 In/Sec	.249 G-s	
81		.078 In/Sec	.068 G-s	
82		.166 In/Sec	.240 G-s	
	ion Of Vib > G-s	ration Units: PK		
Vel	> G-s > In/		766	reviated Last Measurement
vei Summary	> IN/	Dec FR	ADD	reviated hast measurement
y	*	****	*****	**
	Database	: Blues city.rb	m	
	Station:	ALCOHOL PUMP		
	~ ~~ ~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			

MEASUREMEN		OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
SK1 RO1	- SKID 1	- RO PUMP #1	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ	
11			.464 G-s	3555.0 RPM
12		.044 In/Sec		
21		.090 In/Sec	.474 G-s	
22		.143 In/Sec		
23		.119 In/Sec		
SK1 RO4	- SKID 1	- RO PUMP #4	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ	
11		.067 In/Sec	.164 G-s	3515.0 RPM
12		.115 In/Sec	.190 G-s	
21		062 Tr/Sec	273 G-s	
22		.079 In/Sec	.220 G-s	
23		.090 In/Sec	.148 G-s	
SK1 RO3	- SKID 1	- RO PUMP #3 OVERALL LEVEL	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ	
11		.198 In/Sec	1.026 G-s	3550.0 RPM
12		.241 In/Sec	.674 G-s	
21		.169 In/Sec	1.093 G-s	
22		.169 In/Sec .184 In/Sec	.700 G-s	
23		.120 In/Sec		
71		.146 In/Sec		
72		.180 In/Sec	.931 G-s	
73		.188 In/Sec		
81		.126 In/Sec		
82		.144 In/Sec	.614 G-s	
SK1 RO2	- SKID 1	- RO PUMP #2	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ .674 G-s	
11		.095 In/Sec	.674 G-s	3570.0 RPM
12		.061 In/Sec	.712 G-s	
21		.077 In/Sec	.907 G-s	
22		.037 In/Sec	.591 G-s	
23		.049 In/Sec	.297 G-s	
71		.066 In/Sec		
72		.028 In/Sec	.326 G-s	
73		.096 In/Sec	.392 G-s	
81		.077 In/Sec		
82		.052 In/Sec	.724 G-s	
		ibration Units: -s PK		
Vel	-	n/Sec PK	۵hh	reviated Last Measurement
Summary	<i>,</i> 1	ii, bee In	1001	leviated hast measurement
, canance + y		*****	*****	**
	Databa	se: Blues_city.rb	m	
	Statio	n: ADMINISTRATIV	E AREA	
		Date: 07-Apr-21	14:02	

HVAC COLD -	· HVAC COLD GLYCOL CIRC PUMP OVERALL LEVEL	_	
11	.048 In/Sec		3600.0 RPM
12	.092 In/Sec	.228 G-s	
21	.106 In/Sec	.289 G-s	
22	083 Tn/Sec	.393 G-s	
23	096 Tn/Sec	194 C-s	
71	.133 In/Sec	.230 G-s	
72	.121 In/Sec	.250 G S	
72			
81	.192 In/Sec	.127 G-s .215 G-s	
82	.109 In/Sec		
HVAC HOT -	HVAC HOT WATER CIRC PUMP OVERALL LEVEL	(U/-Apr-21)	
11	.256 In/Sec	.288 G-s	3000.0 RPM
12	.331 In/Sec .254 In/Sec	.378 G-s .642 G-s	
21			
22	.500 In/Sec	.409 G-s	
23	.285 In/Sec	.375 G-s	
71	.295 11/560	.430 G-S	
72	.418 In/Sec		
73	.243 In/Sec	.358 G-s	
81	.221 In/Sec	.335 G-s	
82	.177 In/Sec	.331 G-s	
	> G-s PK > In/Sec PK	Abb	reviated Last Measurement
ummary			
	****************	*****	**
	Database: Blues_city.rbm		
	Station: FILTER CELLAR Report Date: 07-Apr-21	14:02	
MEASUREMENT	POINT OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
		(07.3	
- 1 1111	· CHILL WATER CIRC PUMP #1		
11	OVERALL LEVEL	1-20 KHZ	2600 0 000
	.250 In/Sec	.631 G-s	3600.0 RPM
	100	605 C ~	
12	.180 In/Sec	.605 G-s	
12 21	.264 In/Sec	.667 G-s	
12 21 22	.264 In/Sec .125 In/Sec	.667 G-s .518 G-s	
12 21 22 23	.264 In/Sec .125 In/Sec .208 In/Sec	.667 G-s .518 G-s .733 G-s	
12 21 22 23 71	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s	
12 21 22 23 71 72	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s	
12 21 22 23 71 72 73	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec .137 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s .985 G-s	
12 21 22 23 71 72 73 81	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec .137 In/Sec .080 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s .985 G-s .709 G-s	
12 21 22 23 71 72 73	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec .137 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s .985 G-s	
12 21 22 23 71 72 73 81 82	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec .137 In/Sec .080 In/Sec .072 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s .985 G-s .709 G-s .377 G-s	
12 21 22 23 71 72 73 81 82	.264 In/Sec .125 In/Sec .208 In/Sec .138 In/Sec .116 In/Sec .137 In/Sec .080 In/Sec	.667 G-s .518 G-s .733 G-s .693 G-s .520 G-s .985 G-s .709 G-s .377 G-s	

11	.039	In/Sec	.063	G-s	3600.0 RPM
12	.059	In/Sec	.288	G-s	
21	080	Tn/Sec	384		
22	.094	In/Sec	.299		
23	.110	In/Sec	.076		
71		In/Sec			
72	.188	In/Sec	.179	G-s	
73		In/Sec	.416	G-s	
81		In/Sec			
82	.110	In/Sec	.542	G-s	
W COOL B -	- CHILL WATER WORT	COOL SI)ЕВ (07-	-Apr-22	L)
		LL LEVEL		-	
11	.040	In/Sec	.547	G-s	3600.0 RPM
12		In/Sec			
21				G-s	
22	. 032	In/Sec In/Sec	.344 .351	G-s	
23	.050	In/Sec	.157	G-s	
71	.037	In/Sec			
72	.049	In/Sec	.105 .034	G-s	
73		In/Sec	055	G-s	
81		In/Sec			
82		In/Sec			
02	.035	III/ Sec	.057	63	
Vel	> In/Sec H	?K		2	Abbreviated Last Measurement
Summary	******	*******	******	******	****
Summary	******* Database: Blue			*****	****
Summary		es_city.rk	om	*****	****
Summary	Database: Blue	es_city.rk ERNMENT CH	om ELLAR	*****	****
-	Database: Blue Station: GOVE Report Date: (es_city.rk ERNMENT CE 07-Apr-21	om ELLAR 14:02		
-	Database: Blue Station: GOVE Report Date: (POINT OVERALI	es_city.rk ERNMENT CF)7-Apr-21 L LEVEL	om ELLAR 14:02 HFD	/ VHFD	MACHINE SPEED
-	Database: Blue Station: GOVE Report Date: (POINT OVERALI	es_city.rk ERNMENT CE 07-Apr-21	om ELLAR 14:02 HFD		
- MEASUREMENT	Database: Blue Station: GOVE Report Date: (POINT OVERALI	es_city.rk ERNMENT CE 07-Apr-21 L LEVEL	om ELLAR 14:02 HFD	/ VHFD	MACHINE SPEED
- MEASUREMENT	Database: Blue Station: GOVE Report Date: (POINT OVERALI	es_city.rk ERNMENT CF 07-Apr-21 L LEVEL	om ELLAR 14:02 HFD	/ VHFD	MACHINE SPEED
MEASUREMENT COLD GLY 3 -	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUME OVERAL	es_city.rk ERNMENT CE 07-Apr-21 L LEVEL 2 #3 LL LEVEL	om ELLAR 14:02 HFD (07- (07- 1-20 1	/ VHFD -Apr-2: KHZ	MACHINE SPEED
MEASUREMENT COLD GLY 3 - 11	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUME OVERAL .070	es_city.rk ERNMENT CH D7-Apr-21 L LEVEL 2 #3 LL LEVEL In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058	/ VHFD -Apr-2: KHZ G-s	MACHINE SPEED
MEASUREMENT COLD GLY 3 - 11 12	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUME OVERAL .070 .027	es_city.rk ERNMENT CH D7-Apr-21 L LEVEL 2 #3 LL LEVEL In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 I .058 .092	/ VHFD Apr-2: KHZ G-s G-s G-s	MACHINE SPEED
MEASUREMENT COLD GLY 3 - 11 12 21	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUME OVERAL .070 .027 .053	es_city.rk ERNMENT CH D7-Apr-21 L LEVEL 2 #3 LL LEVEL In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 I .058 .092 .355	/ VHFD Apr-2: KHZ G-s G-s G-s G-s	MACHINE SPEED
 COLD GLY 3 - 11 12 21 22	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUME OVERAL .070 .027 .053 .058	es_city.rk ERNMENT CH D7-Apr-21 L LEVEL 	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323	/ VHFD 2 KHZ G-s G-s G-s G-s G-s	MACHINE SPEED
 COLD GLY 3 - 11 12 21 22 23	Database: Blue Station: GOVE Report Date: (POINT OVERALI COLD GLYCOL PUMM OVERAL .070 .027 .053 .058 .067	es_city.rk ERNMENT CH D7-Apr-21 C LEVEL 2 #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087	/ VHFD 2 KHZ G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
 COLD GLY 3 - 11 12 21 22 23 71	Database: Blue Station: GOVE Report Date: (POINT OVERALI 	es_city.rh ERNMENT CH D7-Apr-21 L LEVEL 2 #3 LL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
	Database: Blue Station: GOVE Report Date: () POINT OVERALI 	es_city.rh ERNMENT CH D7-Apr-21 L LEVEL 2 #3 LL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125	/ VHFD 2: KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
	Database: Blue Station: GOVE Report Date: () POINT OVERALI 	es_city.rh ERNMENT CH D7-Apr-21 L LEVEL 	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
	Database: Blue Station: GOVE Report Date: () POINT OVERALI 	es_city.rh ERNMENT CH 07-Apr-21 C LEVEL 	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152	/ VHFD 2: KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
	Database: Blue Station: GOVE Report Date: () POINT OVERALI 	es_city.rh ERNMENT CH D7-Apr-21 L LEVEL 	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034	/ VHFD 2: KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED
MEASUREMENT COLD GLY 3 - 11 12 21 22 23 71 72 73 81 82	Database: Blue Station: GOVE Report Date: () POINT OVERALI 	es_city.rh ERNMENT CH D7-Apr-21 L LEVEL 	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .181	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED L) 3600.0 RPM
MEASUREMENT COLD GLY 3 - 11 12 21 22 23 71 72 73 81 82	Database: Blue Station: GOVE Report Date: () POINT OVERALI - COLD GLYCOL PUMI OVERAL .070 .027 .053 .058 .067 .165 .075 .096 .194 .075	es_city.rh ERNMENT CH D7-Apr-21 C LEVEL C #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .181 (07-	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED L) 3600.0 RPM
MEASUREMENT 	Database: Blue Station: GOVE Report Date: () POINT OVERALI - COLD GLYCOL PUMM OVERAJ .070 .027 .053 .058 .067 .165 .075 .096 .194 .075 - COLD GLYCOL PUMM OVERAJ	es_city.rh ERNMENT CH D7-Apr-21 C LEVEL C #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .181 (07- 1-20 1	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED 1) 3600.0 RPM
MEASUREMENT 	Database: Blue Station: GOVE Report Date: () POINT OVERALI - COLD GLYCOL PUMM OVERAJ .070 .027 .053 .058 .067 .165 .075 .096 .194 .075 - COLD GLYCOL PUMM OVERAJ .084	es_city.rh ERNMENT CH D7-Apr-21 C LEVEL C #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .034 .152 .181 (07- 1-20 1 .293	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED L) 3600.0 RPM
MEASUREMENT 	Database: Blue Station: GOVE Report Date: () POINT OVERALI - COLD GLYCOL PUMI OVERAJ .070 .027 .053 .058 .067 .165 .075 .096 .194 .075 - COLD GLYCOL PUMI OVERAJ .084 .040	es_city.rh ERNMENT CH 07-Apr-21 C LEVEL 2 #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .181 (07- 1-20 1 .293 .531	/ VHFD KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED 1) 3600.0 RPM
MEASUREMENT 	Database: Blue Station: GOVE Report Date: () POINT OVERALI - COLD GLYCOL PUMM OVERAJ .070 .027 .053 .058 .067 .165 .075 .096 .194 .075 - COLD GLYCOL PUMM OVERAJ .084 .040 .112	es_city.rh ERNMENT CH D7-Apr-21 C LEVEL C #3 CL LEVEL In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec In/Sec	om ELLAR 14:02 HFD (07- 1-20 1 .058 .092 .355 .323 .087 .159 .125 .034 .152 .034 .152 .181 (07- 1-20 1 .293	/ VHFD Apr-2: KHZ G-s G-s G-s G-s G-s G-s G-s G-s G-s G-s	MACHINE SPEED 1) 3600.0 RPM

23	.075 In/Sec	.223 G-s	
71	.185 In/Sec	1.431 G-s	
72	.129 In/Sec	1.120 G-s	
73	.187 In/Sec	.713 G-s	
81	.211 In/Sec	.900 G-s	
	.102 In/Sec		
82	.102 In/Sec	1.615 G-s	
COLD GLY 5 - COLD GLYC		(07-Apr-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.066 In/Sec	.138 G-s	3600.0 RPM
12	.034 In/Sec	.160 G-s	
21	.095 In/Sec	.240 G-s	
22	.069 In/Sec	.194 G-s	
23	.132 In/Sec	.034 G-s	
	.132 III/Sec		
71	.039 In/Sec	.110 G-s	
72	.021 In/Sec		
73	.050 In/Sec	.067 G-s	
81	.034 In/Sec	.142 G-s	
82	.029 In/Sec	.140 G-s	
COLD GLY 6 - COLD GLYC	OL PUMP #6	(07-Apr-21)	
	OVERALL LEVEL		
11	.053 In/Sec	.574 G-s	3600.0 RPM
			3600.0 RPM
12	.067 In/Sec	.648 G-s	
21	.170 In/Sec	.479 G-s	
22	.120 In/Sec	.532 G-s	
23	.075 In/Sec	.245 G-s	
71	.057 In/Sec	.096 G-s	
72	.030 In/Sec	.055 G-s	
73	.049 In/Sec	.069 G-s	
81	.035 In/Sec	.161 G-s	
82	.033 In/Sec	.123 G-s	
82	.033 11/560	.123 G-S	
PACK GLY 2 - PACKAGING		• •	
	OVERALL LEVEL		
11	.035 In/Sec	.819 G-s	3600.0 RPM
12	.021 In/Sec	.825 G-s	
21	.031 In/Sec	1.361 G-s	
22	.029 In/Sec	.633 G-s	
23	.028 In/Sec	.998 G-s	
71	.032 In/Sec	.277 G-s	
72	.021 In/Sec	.353 G-s	
73	.030 In/Sec	.203 G-s	
81	.026 In/Sec		
82	.024 In/Sec	.105 G-s	
NANO 126 - NANO SKID	PUMP 126	(07-Apr-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.221 In/Sec	.482 G-s	3570.0 RPM
12	.097 In/Sec	.358 G-s	
21	.203 In/Sec	.544 G-s	
22	.118 In/Sec	.543 G-s	
22	.142 In/Sec	.545 G-s .595 G-s	
71	.125 In/Sec	.705 G-s	
72	.126 In/Sec	.494 G-s	
73	.159 In/Sec	.169 G-s	
81	.223 In/Sec	.359 G-s	

82		.096 In/Sec	.287 G-s	
NANO 127	- NANO :	SKID PUMP 127 OVERALL LEVEL	(07-Apr-21) 1-20 кнz	
11		.152 In/Sec		3570.0 RPM
12		.113 In/Sec		5570.0 REA
21		.179 In/Sec		
22		.172 In/Sec	.565 G-s	
23		.209 In/Sec		
71		.131 In/Sec		
72		.235 In/Sec		
73		.169 In/Sec		
81		.080 In/Sec	.300 G-s	
82		.151 In/Sec	.473 G-s	
NANO 128	- NANO :	SKID PUMP 128	(07-Apr-21)	
		OVERALL LEVEL		
11		.610 In/Sec		3570.0 RPM
12		.705 In/Sec		
21		.733 In/Sec		
22		.254 In/Sec		
23		.496 In/Sec		
71		.172 In/Sec		
72		.487 In/Sec		
73		.669 In/Sec		
81 82		.188 In/Sec .329 In/Sec		
NANO 129	- NANO S	SKID PUMP 129	(07-Apr-21)	
		OVERALL LEVEL	1-20 KHZ	
11		.085 In/Sec	.635 G-s	3570.0 RPM
12		.150 In/Sec	1.816 G-s	
21		.161 In/Sec	1.087 G-s 1.033 G-s	
22		.128 In/Sec	1.033 G-s	
23		.132 In/Sec	1.121 G-s	
71		.106 In/Sec		
72		.119 In/Sec		
73		.166 In/Sec		
81		.068 In/Sec	.419 G-s	
82		.120 In/Sec	.495 G-s	
Clarificat	tion Of	 Vibration Units:		
		G-s PK		
		In/Sec PK	Ab	breviated Last Measuremen
Summary			****	***
	D - 4			
		base: Blues_city.m ion: UNUSED / REM		
		rt Date: 07-Apr-21		
	POINT	OVERALL LEVEL	hfd / Vhfd	MACHINE SPEED

*** NO DATA Was Found That Meets the Report Specification ***