

PROBLEM SUMMARY

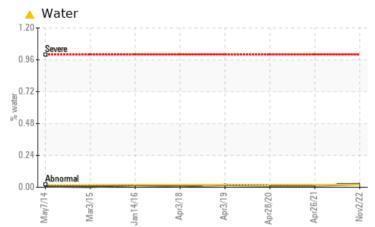
Area [SV2111300680]

MCQUAY LAFAYETTE COURTHOUSE CHILLER 1 CIRC 1 (S/N STNU100100091)

Component Refrigeration Compressor

EMKARATE RL 32H (8 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				MARGINAL	NORMAL	NORMAL		
Water	%	ASTM D6304	>0.02	0.023	0.013	0.013		
ppm Water	ppm	ASTM D6304	>250	A 233.1	135.7	135.6		

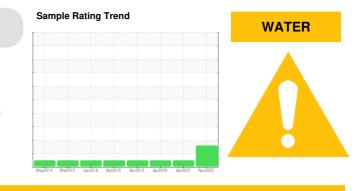
Customer Id: MCQHAR Sample No.: WC0583286 Lab Number: 05690340 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 <u>jhester@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

26 Apr 2021 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



28 Apr 2020 Diag: Don Baldridge



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.







Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Area [SV2111300680] Machine Id MCQUAY LAFAYETTE COURTHOUSE CHILLER 1 CIRC 1 (S/N STNU100100091) Component

Refrigeration Compressor

EMKARATE RL 32H (8 GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

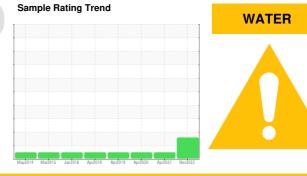
All component wear rates are normal.

Contamination

There is a trace of moisture present in the oil.

Fluid Condition

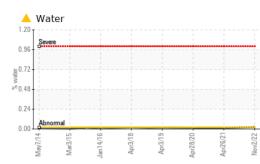
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

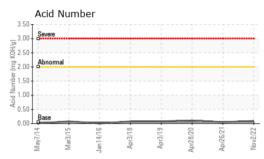


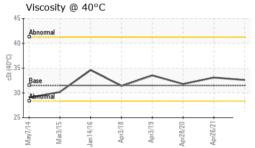
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0583286	WC0464952	WC0357413
Sample Date		Client Info		02 Nov 2022	26 Apr 2021	28 Apr 2020
Machine Age	hrs	Client Info		56000	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13	0	8
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m		<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>50	0	0	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>100	19	<1	25
Tin	ppm	ASTM D5185m	>10	2	<1	<1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
A I I				-	<u>^</u>	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm	ASTM D5185m	limit/base	0 current	0 history1	0 history2
	ppm ppm		limit/base 0	-		÷
ADDITIVES		method	0	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	0	current	history1 <1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	0	current <1 0	history1 <1 0	history2 0 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0	current <1 0 0	history1 <1 0 0	history2 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current <1 0 0 1	history1 <1 0 0 0	history2 0 0 0 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0	<pre>current <1 0 0 1 <1 <1</pre>	history1 <1 0 0 0 0	history2 0 0 0 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0	<pre>current <1 0 0 1 <1 <1 0 0 0 0 0 0 0 0 0 0 0 0</pre>	history1 <1 0 0 0 0 0 0 0	history2 0 0 0 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 5	<pre>current <1 0 0 1 <1 <1 0 333</pre>	history1 <1 0 0 0 0 0 0 1	history2 0 0 0 0 <1 0 <1 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10	current <1 0 0 1 <1 0 33 26	history1 <1 0 0 0 0 0 0 1 1 0	history2 0 0 0 0 <1 0 <1 3 24
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10 50	current <1 0 1 <1 0 33 26 0	history1 <1 0 0 0 0 0 0 1 0 0 1 0 0	history2 0 0 0 0 <1 0 <1 3 24 54 history2 21
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10 50 limit/base	current <1 0 1 <1 0 33 26 0 current	history1 <1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 history1	history2 0 0 0 0 <1 0 <1 3 24 54 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10 50 limit/base	current <1 0 1 <1 0 33 26 0 current 20	history1 <1 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0 history1 0	history2 0 0 0 0 <1 0 <1 3 24 54 history2 21
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 0 0 0 5 10 50 10 50 10 10 50 250	current <1 0 1 <1 0 33 26 0 current 20 2	history1 <1 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 history1 0 0	history2 0 0 0 0 <1 3 24 54 history2 21 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10 50 i iinit/base >50	current <1 0 1 <1 0 33 26 0 current 20 2 <1	history1 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1	history2 0 0 0 0 <1 0 <1 3 24 54 history2 21 2 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	0 0 0 0 0 5 10 50 10 50 10 50 10 50 20 >20 >0.02	current <1 0 1 <1 0 33 26 0 current 20 2 <1 0 0 0 0 33 26 0 21 22 21 20 2 <1 0 0.023	history1 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0.013	history2 0 0 0 0 <1 0 <1 3 24 54 history2 21 2 <1 0 0 0 0.013



OIL ANALYSIS REPORT





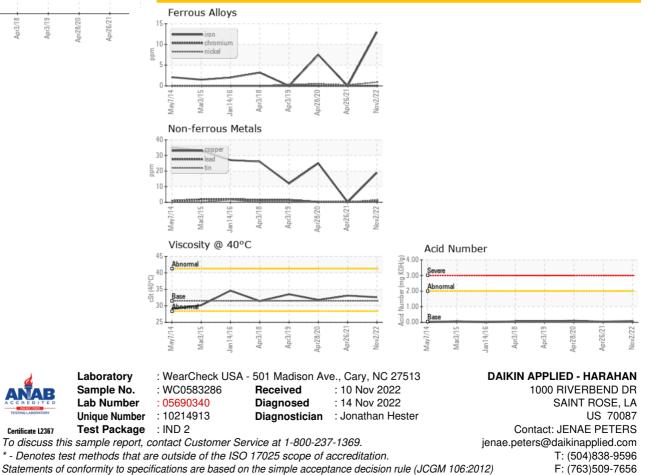


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.02	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	31.5	32.6	33.1	31.8
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				F Ced		



Bottom





Report Id: MCQHAR [WUSCAR] 05690340 (Generated: 07/27/2023 17:22:13) Rev: 1

Contact/Location: JENAE PETERS - MCQHAR