

# **OIL ANALYSIS REPORT**

Sample Rating Trend

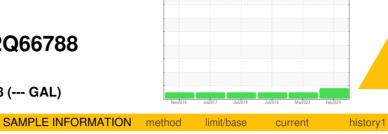
**WEAR** 

history2



## Area [GTT224-353] CARRIER 1102Q66788 Component Chiller

## Fluid COMP OIL (POE) ISO 68 (--- GAL)





#### Recommendation

The operation of this unit should be reviewed closely by a service engineer. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

#### A Wear

Tin ppm levels are abnormal. The tin reading shows moderate wear occurring on the compressor bearings or motor bearings.

#### Contamination

The water content is negligible. There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is acceptable for this fluid.

Sample Number		Client Info		GTT0001992	GTT4035	GTT4036
Sample Date		Client Info		19 Feb 2024	15 Mar 2022	10 Jul 2019
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>8	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>2	0	<1	<1
Nickel	ppm	ASTM D5185(m)		0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>3	0	<1	<1
Lead	ppm	ASTM D5185(m)	>2	0	<1	<1
Copper	ppm	ASTM D5185(m)	>8	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<u> </u>	<1	<1
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
		ACTM DE10E(m)		•		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES	ppm	method	limit/base	0 current	history1	history2
	ppm	. ,	limit/base	-	 history1	
ADDITIVES		method		current	 history1 	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	5	current		history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185(m) ASTM D5185(m)	5 5	current <1 0		history2 
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method           ASTM D5185(m)           ASTM D5185(m)           ASTM D5185(m)	5 5	current <1 0 0		history2 
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	current <1 0 0 0		history2   
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5185(m)           ASTM D5185(m)	5 5 5 5	<1 <1 0 0 0 0 0		history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 5 5 5 400	<pre>current &lt;1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</pre>	  	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 5 5 5 400	<pre>current &lt;1 0 0 0 0 0 0 0 0 255</pre>	   	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 5 5 5 400 5	<ul> <li>current</li> <li>&lt;1</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>255</li> <li>2</li> </ul>	    10	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	5 5 5 5 5 5 400 5	Current <1 0 0 0 0 0 255 2 2 7	   10 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	5 5 5 5 5 400 5 100	<ul> <li>current</li> <li>&lt;1</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>255</li> <li>2</li> <li>7</li> <li>&lt;1</li> </ul>	   10 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 5 5 400 5 100 imit/base	current           <1           0           0           0           0           0           255           2           7           <1           current	    10  history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	5 5 5 5 5 400 5 100 imit/base	current         <1         0         0         0         0         0         255         2         7         <1         current	   10  history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)	5 5 5 5 400 5 100 limit/base >15	current         <1         0         0         0         0         0         0         0         255         2         7         <1         current         4         <1	   10  10  history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185(m)           ASTM D5185(m)	5 5 5 5 400 5 100 5 100 5 100 5 100 5 100 5 100 5 20	current         <1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         255         2         7         <1         <1         <1	   10  10  history1  history1	history2



## **OIL ANALYSIS REPORT**

VISUAL		method	limit/base	current	history1	history2		
White Metal	scalar	Visual*	NONE	NONE				
Yellow Metal	scalar	Visual*	NONE	NONE				
Precipitate	scalar	Visual*	NONE	NONE				
Silt	scalar	Visual*	NONE	NONE				
Debris	scalar	Visual*	NONE	NONE				
Sand/Dirt	scalar	Visual*	NONE	NONE				
Appearance	scalar	Visual*	NORML	NORML				
Odor	scalar	Visual*	NORML	NORML				
FLUID PROPERTIES		method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	68	58.9				
SAMPLE IMAGES		method	limit/base	current	history1	history2		
Color					no image	no image		
Bottom					no image	no image		
GRAPHS								



 Sample No.
 : GTT0001992
 Received
 : 01 Apr 2024

 Lab Number
 : 02625890
 Tested
 : 04 Apr 2024
 G

 Unique Number
 : 5759022
 Diagnosed
 : 04 Apr 2024 - Bill Quesnel
 G

 Test Package
 : IND 2 ( Additional Tests: KV40 )
 Contact

 To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26.
 Tested at external lab.

 Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.
 Contact

Ainsworth 1930 Rue onesime Gagon Lachine, QC CA H8T 2M6 Contact: Service Manager

T:

F:

Contact/Location: Service Manager - GTT0001012 Page 2 of 2