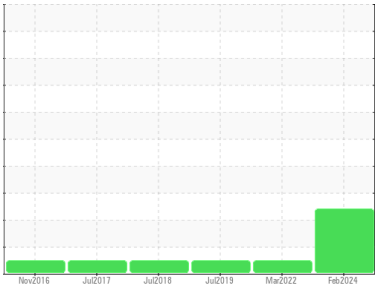
OIL ANALYSIS REPORT

Area
[GTT225-353]
Machine Id
CARRIER 0301Q65025
Component
Chiller
Fluid
COMP OIL (POE) ISO 68 (--- GAL)

Sample Rating Trend



WATER

DIAGNOSIS

Recommendation
If not recently done change any filter driers to reduce moisture level. 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.

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

Contamination
The elevated moisture content is associated with POE oils which are hygroscopic, and can absorb moisture from sampling and processing.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GTT0001985**	GTT874	GTT875
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	▲ **6**	<1	2
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	**<1**	---	---
Barium	ppm	ASTM D5185(m)	5	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	5	**0**	---	---
Manganese	ppm	ASTM D5185(m)		**0**	---	---
Magnesium	ppm	ASTM D5185(m)	5	**0**	---	---
Calcium	ppm	ASTM D5185(m)	5	**0**	---	---
Phosphorus	ppm	ASTM D5185(m)	400	**424**	---	---
Zinc	ppm	ASTM D5185(m)	5	**1**	<1	<1
Sulfur	ppm	ASTM D5185(m)	100	**3**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**4**	---	---
Sodium	ppm	ASTM D5185(m)		**0**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	---	---
ppm Water	ppm	ASTM D6304*	>100	● **300**	79	147

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.40	**0.02**	0.073	0.029

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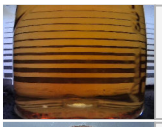
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	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	**64.1**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

Sample No. : GTT0001985
Lab Number : 02625893
Unique Number : 5759025
Test Package : IND 2 (Additional Tests: KV40)

Received : 01 Apr 2024
Tested : 04 Apr 2024
Diagnosed : 04 Apr 2024 - Bill Quesnel

To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) 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.

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