

# **OIL ANALYSIS REPORT**

## Area South Engine Room FRICK TYSCMIS C-4 SER (S/N 0095FMFT0AA03)

**Refrigeration Compressor** 

USPI ALT-68 SC (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

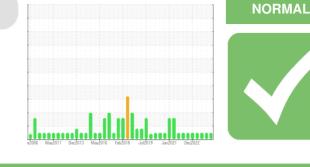
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

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



Sample Rating Trend

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0012731	USP0007063	USP0003254
Sample Date		Client Info		29 May 2024	13 Feb 2024	05 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	9	8	6
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	<1	0	0
Copper	ppm	ASTM D5185m	>8	<1	<1	0
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	0	0
Calcium	ppm	ASTM D5185m		2	1	<1
Phosphorus	ppm	ASTM D5185m		0	0	<1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	7	8
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	3	2	3
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304		0.007	0.004	0.005
ppm Water	ppm	ASTM D6304	>100	72	42	57.2
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	796	4460	804
Particles >6µm		ASTM D7647	>2500	142	1475	205
Particles >14µm		ASTM D7647	>320	12	51	11
Particles >21µm		ASTM D7647	>80	4	7	2
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0

Acid Number (AN)

FLUID DEGRADATION

**Oil Cleanliness** 

mg KOH/g ASTM D974 0.005

ISO 4406 (c) >20/18/15

Contact/Location: SERVICE MANAGER - TYSCARMS

19/18/13

0.015

17/14/11

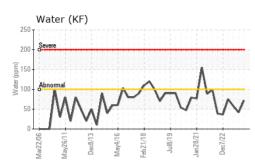
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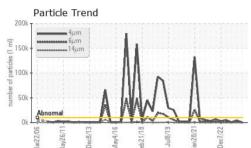
17/15/11

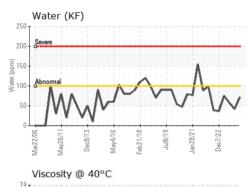
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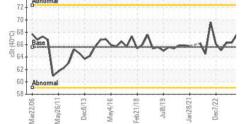


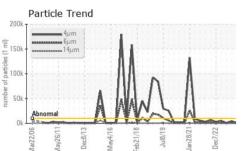
# **OIL ANALYSIS REPORT**





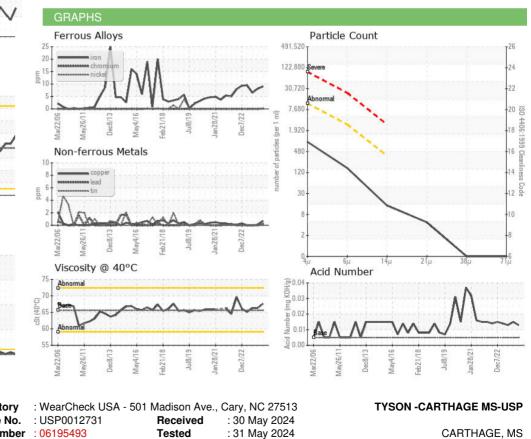






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	67.6	66.3	66.3
SAMPLE IMAGES		method	limit/base	current	history1	history2
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Pottom					(6)	

Bottom



: 31 May 2024 - Doug Bogart



Laboratory : WearChec Sample No. : USP00127 Lab Number : 06195493 Unique Number : 11057616 Test Package : IND 2

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Diagnosed

Report Id: TYSCARMS [WUSCAR] 06195493 (Generated: 05/31/2024 20:37:58) Rev: 1

Contact/Location: SERVICE MANAGER - TYSCARMS

US 75633

T:

F:

Contact: SERVICE MANAGER