



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
F01703 (S/N 87.82511005102.0001X23.50)

Component
Gearbox
 Fluid
HC-460 NSF-H1 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0894845	WC0894841	---
Sample Date		Client Info		29 Apr 2024	22 Feb 2024	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	9	8	---
Chromium	ppm	ASTM D5185m	>15	0	0	---
Nickel	ppm	ASTM D5185m	>15	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>25	10	10	---
Lead	ppm	ASTM D5185m	>100	0	0	---
Copper	ppm	ASTM D5185m	>200	0	0	---
Tin	ppm	ASTM D5185m	>25	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

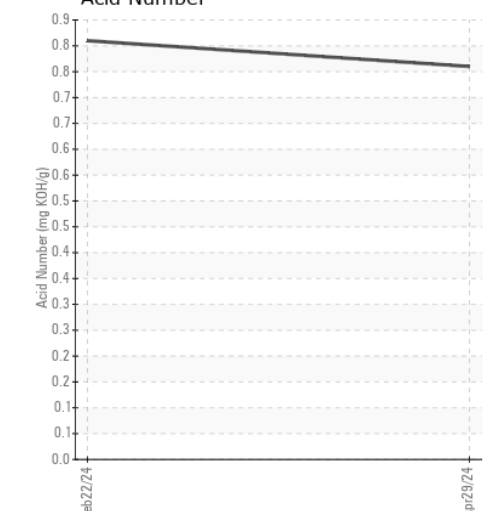
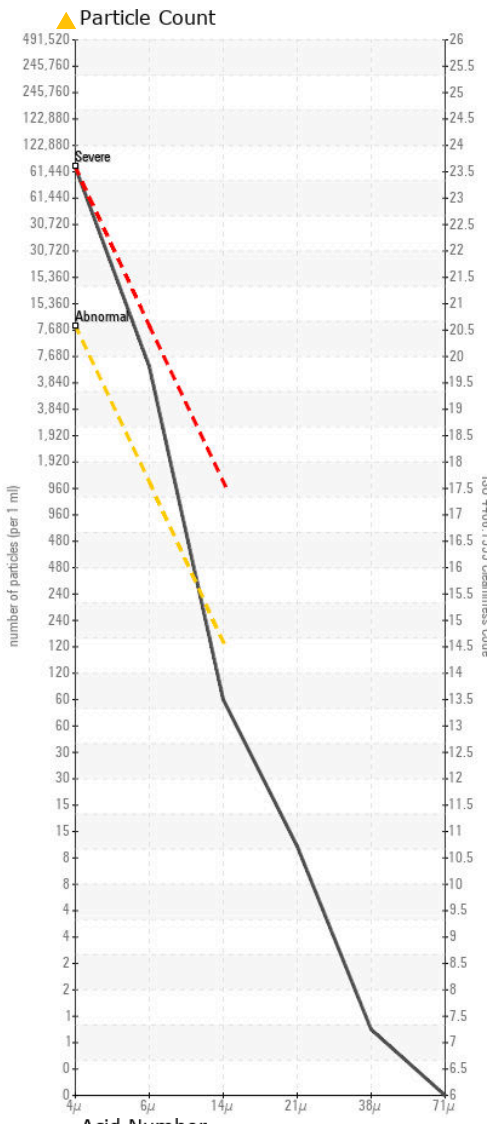
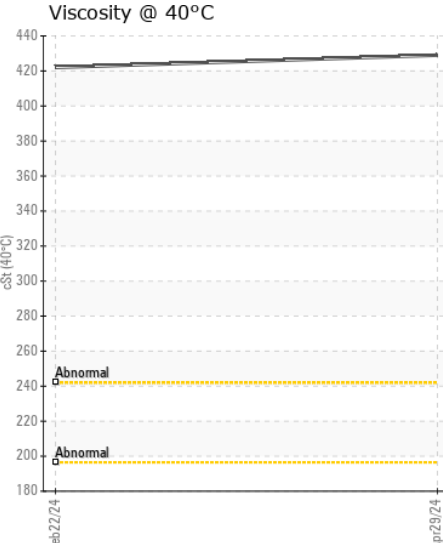
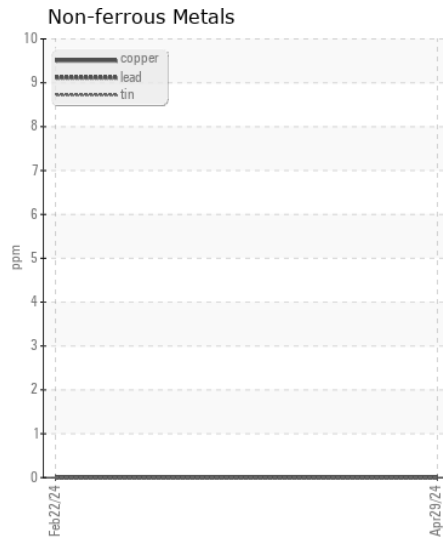
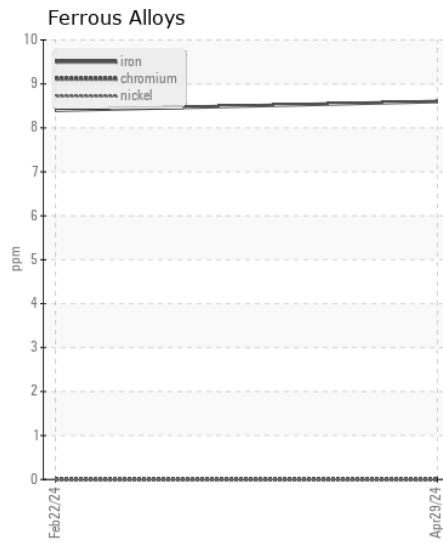
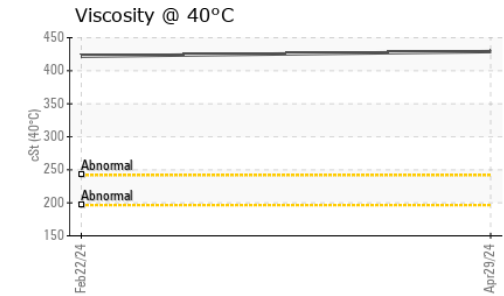
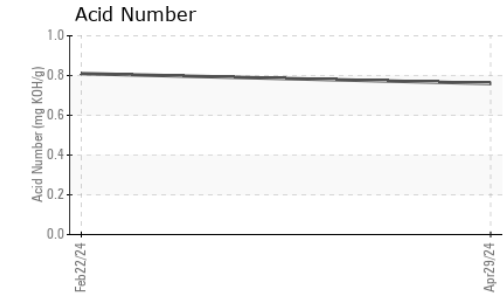
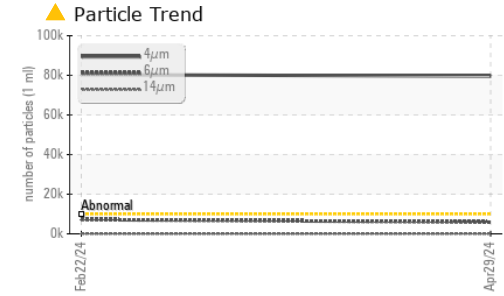
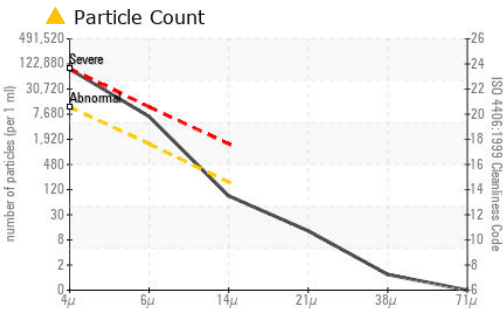
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185m	>50	35	34	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.2	NEG	NEG	---
Particles >4µm		ASTM D7647	>10000	▲ 79605	▲ 80342	---
Particles >6µm		ASTM D7647	>1300	▲ 5877	▲ 7178	---
Particles >14µm		ASTM D7647	>160	75	81	---
Particles >21µm		ASTM D7647	>40	11	13	---
Particles >38µm		ASTM D7647	>10	1	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>20/17/14	▲ 23/20/13	▲ 24/20/14	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		8	6	---
Boron	ppm	ASTM D5185m		0	2	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		0	<1	---
Calcium	ppm	ASTM D5185m		9	10	---
Phosphorus	ppm	ASTM D5185m		922	910	---
Zinc	ppm	ASTM D5185m		<1	0	---
Sulfur	ppm	ASTM D5185m		1223	1174	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.76	0.81	---
Visc @ 40°C	cSt	ASTM D445		429	422	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0894845 **Received** : 24 May 2024
Lab Number : 06190407 **Tested** : 28 May 2024
Unique Number : 11047159 **Diagnosed** : 28 May 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: PrtCount)

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)

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