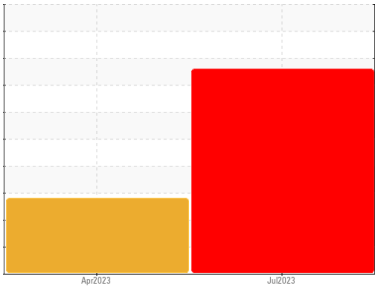
PROBLEM SUMMARY

Sample Rating Trend

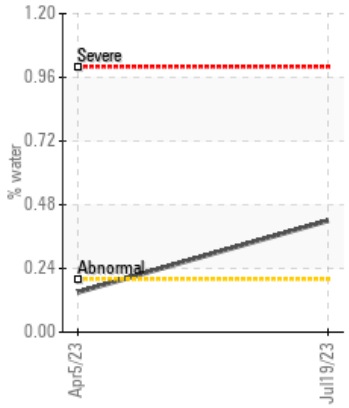


WATER

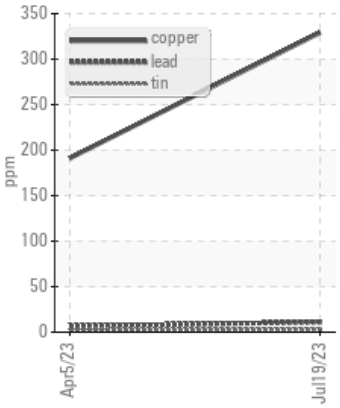
Area
MEK
Machine Id
[MEK] P1-Filter
Component
Gearbox
Fluid
GEAR OIL ISO 680 (4 GAL)

COMPONENT CONDITION SUMMARY

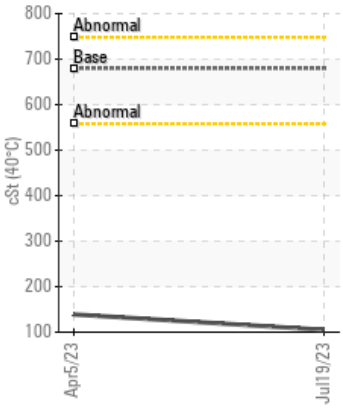
▲ Water



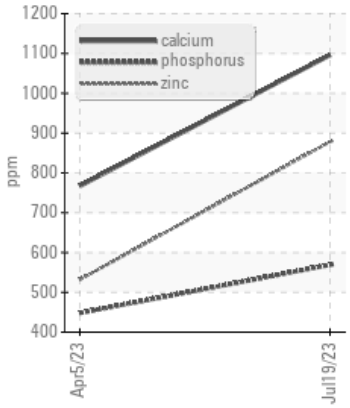
▲ Non-ferrous Metals



▲ Viscosity @ 40°C



▲ Additives



RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	---
Copper	ppm	ASTM D5185m	>200	▲ **329**	191	---
Boron	ppm	ASTM D5185m	50	▲ **108**	76	---
Molybdenum	ppm	ASTM D5185m	15	▲ **197**	148	---
Magnesium	ppm	ASTM D5185m	50	▲ **404**	▲ 255	---
Calcium	ppm	ASTM D5185m	50	▲ **1096**	▲ 767	---
Zinc	ppm	ASTM D5185m	100	▲ **878**	▲ 532	---
Water	%	ASTM D6304	>0.2	▲ **0.420**	0.150	---
ppm Water	ppm	ASTM D6304	>2000	▲ **4200**	1500	---
Yellow Metal	scalar	*Visual	NONE	▲ **HEAVY**	▲ HEAVY	---
Free Water	scalar	*Visual		▲ **1.0**	NEG	---
Visc @ 40°C	cSt	ASTM D445	680	▲ **105**	139	---

Customer Id: CALSHR
Sample No.: RP0034788
Lab Number: 05904447
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

05 Apr 2023 Diag: Jonathan Hester

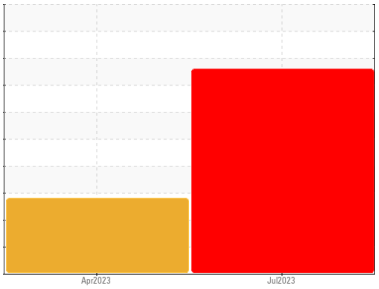
VISUAL METAL

Resample at the next service interval to monitor.High concentration of visible metal present. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
MEK
Machine Id
[MEK] P1-Filter
Component
Gearbox
Fluid
GEAR OIL ISO 680 (4 GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

Wear
The copper level is abnormal. Heavy concentration of visible metal present.

Contamination
There is a moderate concentration of water present in the oil. Free water present.

Fluid Condition
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0034788**	RP0034810	---
Sample Date		Client Info		**19 Jul 2023**	05 Apr 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Not Changd**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**49**	57	---
Chromium	ppm	ASTM D5185m	>15	**0**	0	---
Nickel	ppm	ASTM D5185m	>15	**2**	<1	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>25	**6**	1	---
Lead	ppm	ASTM D5185m	>100	**11**	7	---
Copper	ppm	ASTM D5185m	>200	▲ **329**	191	---
Tin	ppm	ASTM D5185m	>25	**3**	2	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	▲ **108**	76	---
Barium	ppm	ASTM D5185m	15	**0**	0	---
Molybdenum	ppm	ASTM D5185m	15	▲ **197**	148	---
Manganese	ppm	ASTM D5185m		**4**	2	---
Magnesium	ppm	ASTM D5185m	50	▲ **404**	▲ 255	---
Calcium	ppm	ASTM D5185m	50	▲ **1096**	▲ 767	---
Phosphorus	ppm	ASTM D5185m	350	**569**	▲ 448	---
Zinc	ppm	ASTM D5185m	100	▲ **878**	▲ 532	---

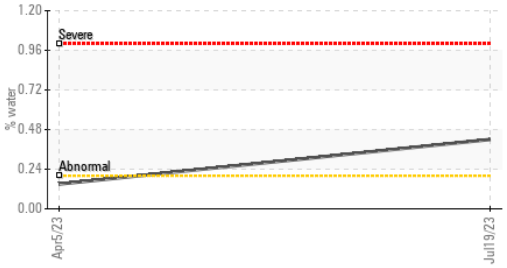
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**9**	10	---
Sodium	ppm	ASTM D5185m		**<1**	0	---
Potassium	ppm	ASTM D5185m	>20	**<1**	1	---
Water	%	ASTM D6304	>0.2	▲ **0.420**	0.150	---
ppm Water	ppm	ASTM D6304	>2000	▲ **4200**	1500	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	**0.79**	0.78	---

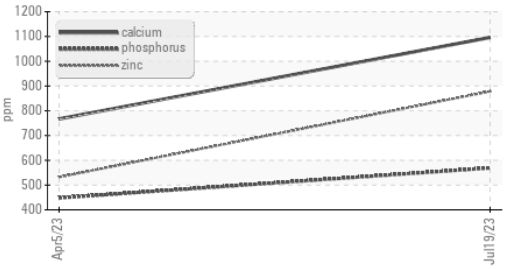
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	▲ **HEAVY**	▲ HEAVY	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	0.2%	---
Free Water	scalar	*Visual		▲ **1.0**	NEG	---

OIL ANALYSIS REPORT

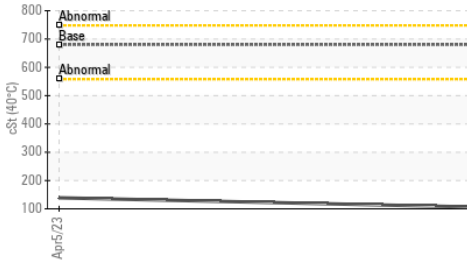
Water



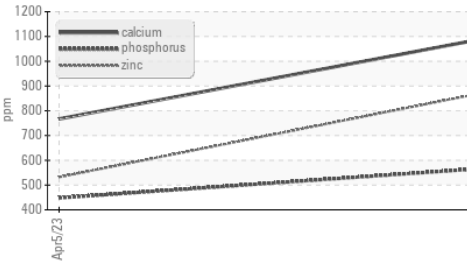
Additives



Viscosity @ 40°C

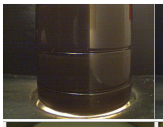
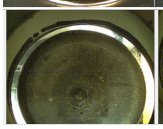
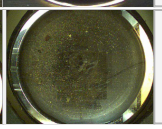


Additives



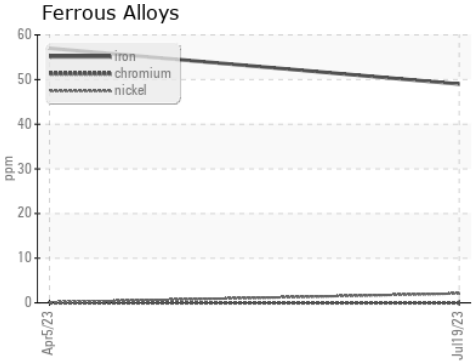
Acid Number

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	680	▲ **105**	139	---

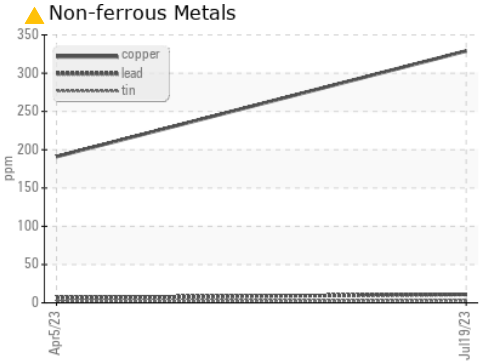
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS

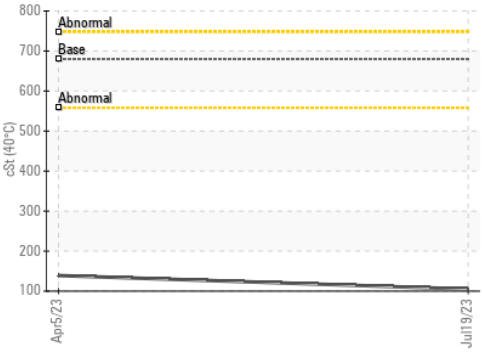
Ferrous Alloys



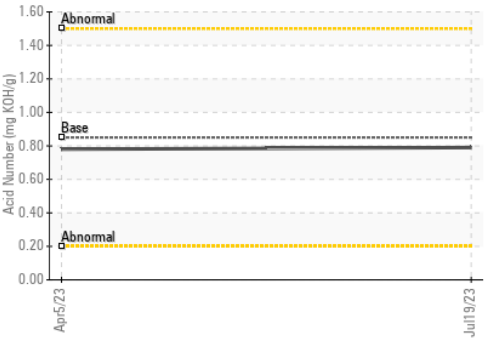
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034788
Lab Number : 05904447
Unique Number : 10565803
Test Package : IND 2

Received : 21 Jul 2023
Diagnosed : 01 Aug 2023
Diagnostician : Doug Bogart

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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