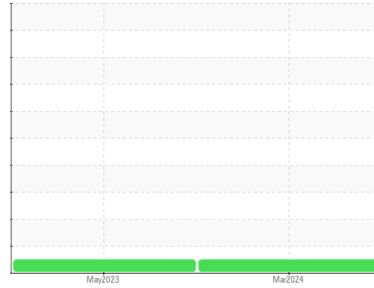




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
KAESER 3704537 (S/N 1922)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA014944	KCP55732	---
Sample Date	Client Info			18 Mar 2024	10 May 2023	---
Machine Age	hrs	Client Info		39737	37029	---
Oil Age	hrs	Client Info		1420	0	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>3	1	0	---
Titanium	ppm	ASTM D5185m	>3	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	2	---
Lead	ppm	ASTM D5185m	>10	1	0	---
Copper	ppm	ASTM D5185m	>50	2	<1	---
Tin	ppm	ASTM D5185m	>10	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

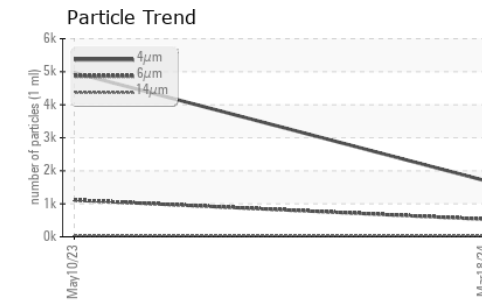
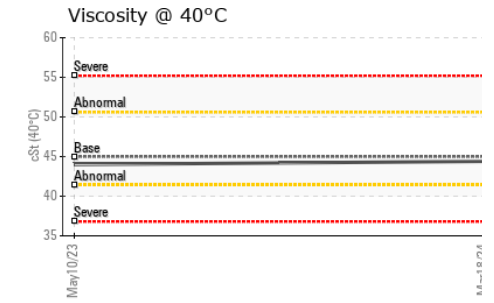
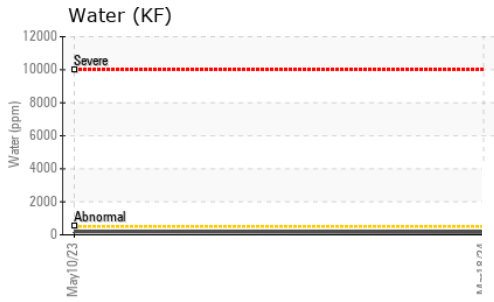
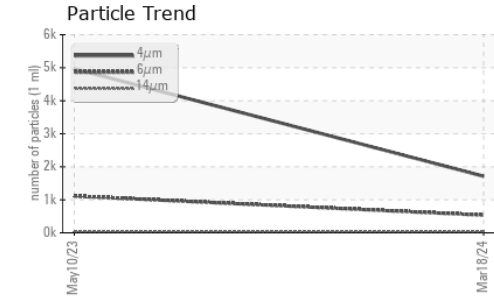
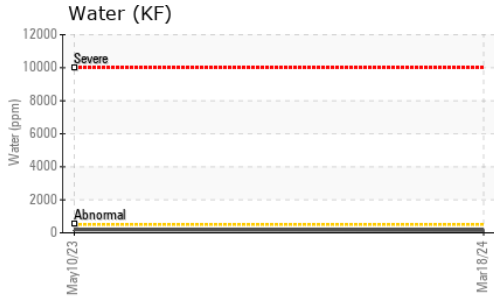
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	---
Barium	ppm	ASTM D5185m	90	71	20	---
Molybdenum	ppm	ASTM D5185m	0	0	0	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m	100	91	46	---
Calcium	ppm	ASTM D5185m	0	4	0	---
Phosphorus	ppm	ASTM D5185m	0	0	0	---
Zinc	ppm	ASTM D5185m	0	<1	0	---
Sulfur	ppm	ASTM D5185m	23500	21960	22025	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	0	---
Sodium	ppm	ASTM D5185m		28	15	---
Potassium	ppm	ASTM D5185m	>20	5	2	---
Water	%	ASTM D6304	>0.05	0.015	0.019	---
ppm Water	ppm	ASTM D6304	>500	153	191.6	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1713	4972	---
Particles >6µm		ASTM D7647	>1300	534	1112	---
Particles >14µm		ASTM D7647	>80	42	45	---
Particles >21µm		ASTM D7647	>20	9	9	---
Particles >38µm		ASTM D7647	>4	1	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	18/16/13	19/17/13	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.40	0.37	---

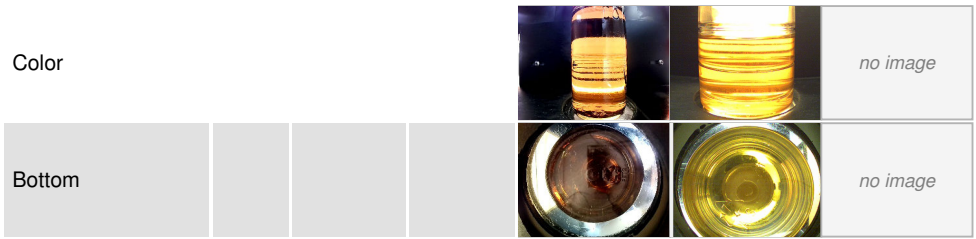
OIL ANALYSIS REPORT



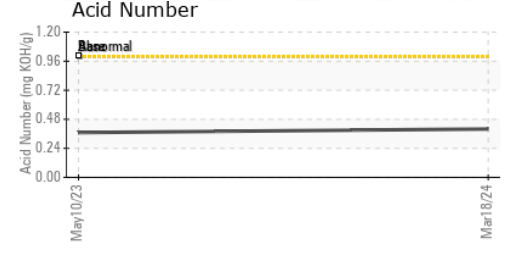
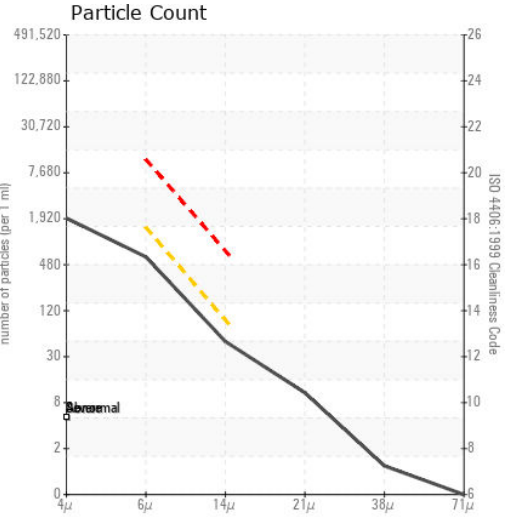
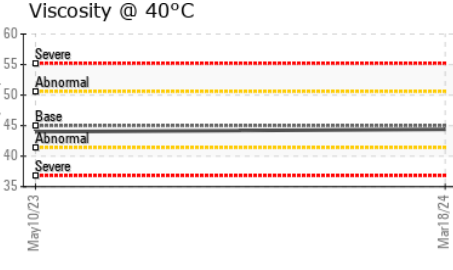
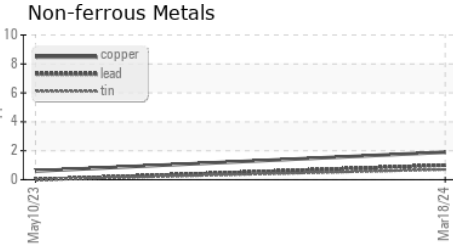
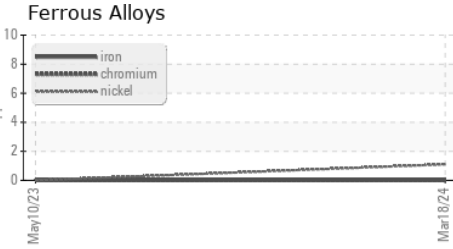
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	44.4	44.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA014944 **Received** : 28 Mar 2024
Lab Number : 06132023 **Tested** : 29 Mar 2024
Unique Number : 10951488 **Diagnosed** : 02 Apr 2024 - Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

MEDTRONIC
 5920 LONGBOW DRIVE
 BOULDER, CO
 US 80301
 Contact: Service Manager

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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F: