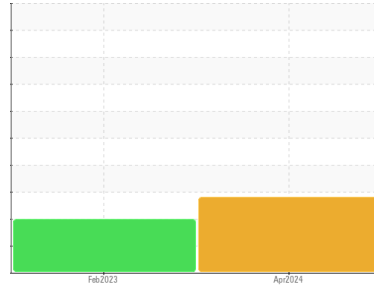




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER AS 20 6950567 (S/N 1189)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

- Recommendation**  
 No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.
- Wear**  
 The copper level is abnormal. All other component wear rates are normal.
- Contamination**  
 There is a high amount of particulates present in the oil.
- Fluid Condition**  
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KCPA016817</b>	KCP54221	---
Sample Date	Client Info		<b>11 Apr 2024</b>	24 Feb 2023	---
Machine Age	hrs	Client Info	<b>5014</b>	3019	---
Oil Age	hrs	Client Info	<b>3000</b>	3019	---
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>1</b>	<1	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	<1	---
Lead	ppm	ASTM D5185m >10	<b>1</b>	0	---
Copper	ppm	ASTM D5185m >50	<b>▲ 78</b>	<b>▲ 86</b>	---
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	---
Barium	ppm	ASTM D5185m 90	<b>1</b>	0	---
Molybdenum	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m 100	<b>6</b>	<1	---
Calcium	ppm	ASTM D5185m 0	<b>4</b>	0	---
Phosphorus	ppm	ASTM D5185m 0	<b>4</b>	4	---
Zinc	ppm	ASTM D5185m 0	<b>39</b>	4	---
Sulfur	ppm	ASTM D5185m 23500	<b>18552</b>	14567	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	<1	---
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	---
Water	%	ASTM D6304 >0.05	<b>0.003</b>	0.009	---
ppm Water	ppm	ASTM D6304 >500	<b>31</b>	90.8	---

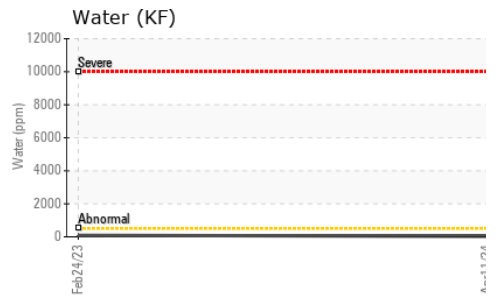
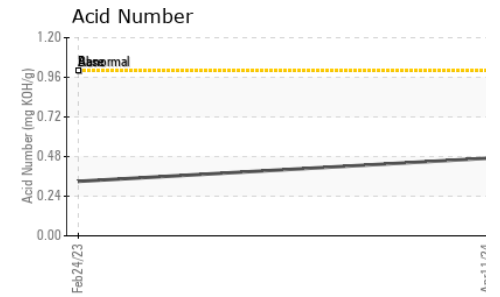
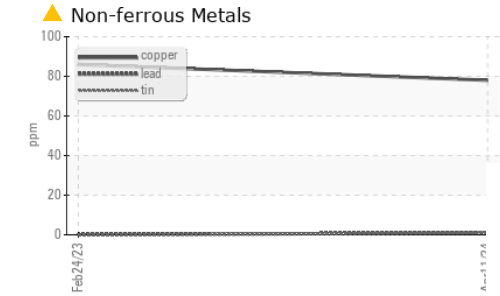
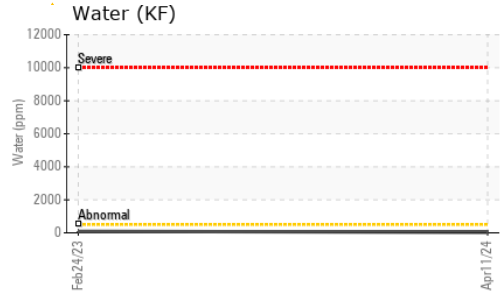
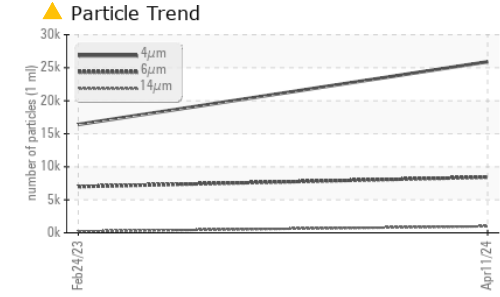
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>25902</b>	16413	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 8419</b>	<b>▲ 6993</b>	---
Particles >14µm	ASTM D7647	>80	<b>▲ 986</b>	<b>▲ 220</b>	---
Particles >21µm	ASTM D7647	>20	<b>▲ 308</b>	36	---
Particles >38µm	ASTM D7647	>4	<b>▲ 17</b>	1	---
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 22/20/17</b>	<b>▲ 21/20/15</b>	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.47</b>	0.33	---

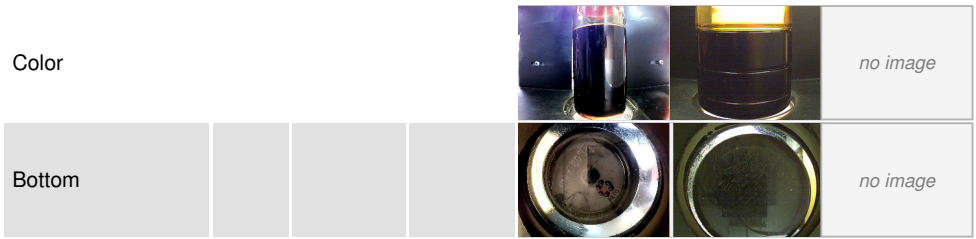
# OIL ANALYSIS REPORT



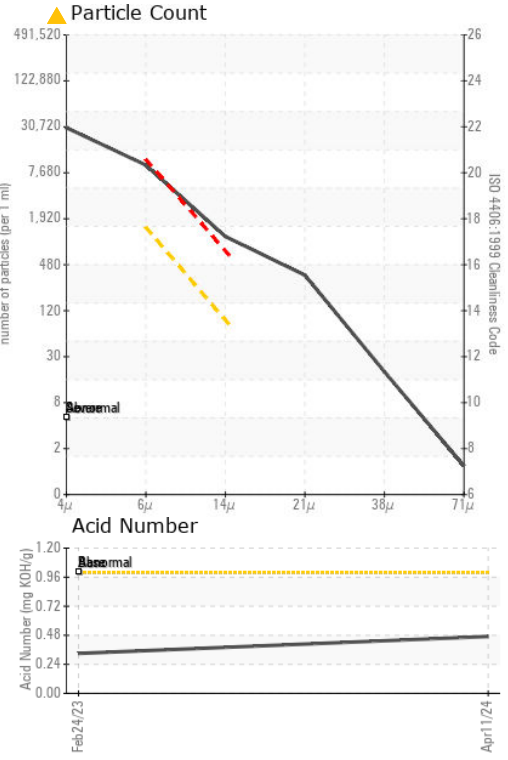
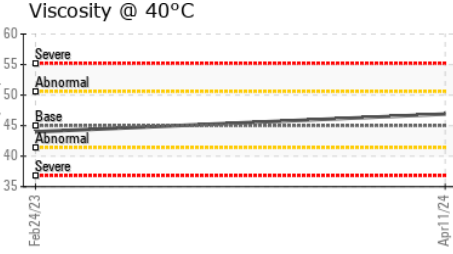
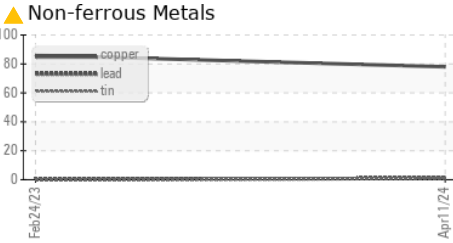
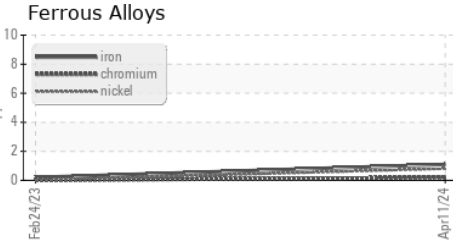
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	46.9	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.** : KCPA016817  
**Lab Number** : 06153777  
**Unique Number** : 10989200  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )  
**Received** : 18 Apr 2024  
**Tested** : 20 Apr 2024  
**Diagnosed** : 23 Apr 2024 - Don Baldrige

**F & M CALLAHAN & SONS INC**  
 22 SHARON ST  
 MALDEN, MA  
 US 02148  
 Contact: ACCOUNTING  
 accounting@fmcallahan.com

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)