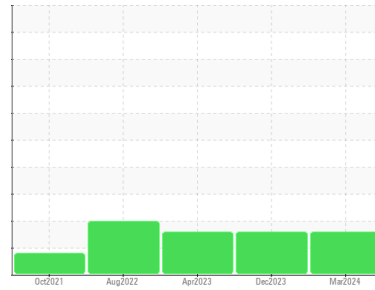




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

**KAESER 6516378**

Component

**Compressor**

Fluid

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

## DIAGNOSIS

### Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All 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 suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KCPA007698</b>	KCPA000791	KCPA000110
Sample Date	Client Info		<b>21 Mar 2024</b>	12 Dec 2023	10 Apr 2023
Machine Age	hrs	Client Info	<b>24059</b>	22818	14937
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>1</b>	<1	0
Lead	ppm	ASTM D5185m >10	<b>1</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>2</b>	2	7
Tin	ppm	ASTM D5185m >10	<b>1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>31</b>	12	46
Molybdenum	ppm	ASTM D5185m 0	<b>1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 100	<b>80</b>	63	73
Calcium	ppm	ASTM D5185m 0	<b>5</b>	<1	2
Phosphorus	ppm	ASTM D5185m 0	<b>4</b>	1	<1
Zinc	ppm	ASTM D5185m 0	<b>4</b>	0	0
Sulfur	ppm	ASTM D5185m 23500	<b>21274</b>	19816	24166

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	1	<1
Sodium	ppm	ASTM D5185m	<b>14</b>	8	40
Potassium	ppm	ASTM D5185m >20	<b>3</b>	2	8
Water	%	ASTM D6304 >0.05	<b>0.031</b>	0.019	0.016
ppm Water	ppm	ASTM D6304 >500	<b>310</b>	191	167.2

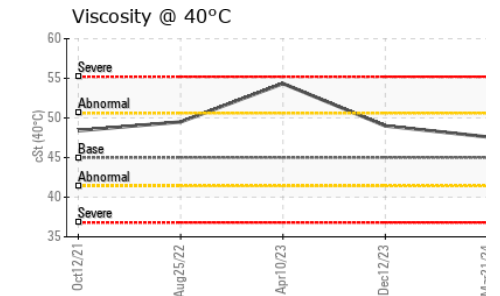
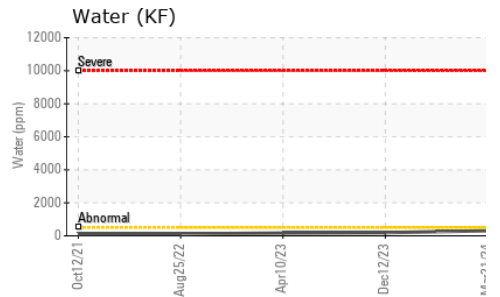
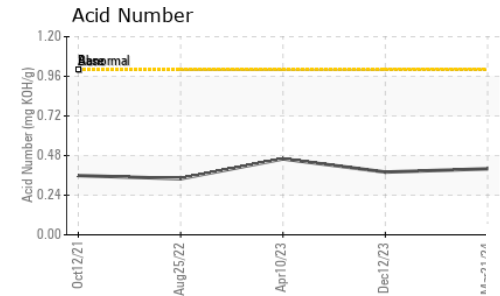
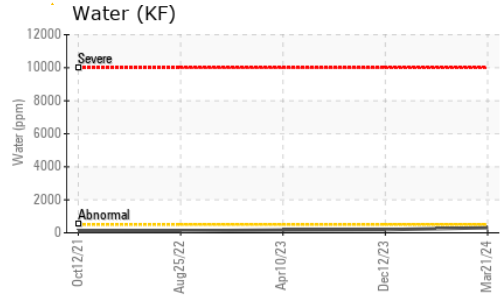
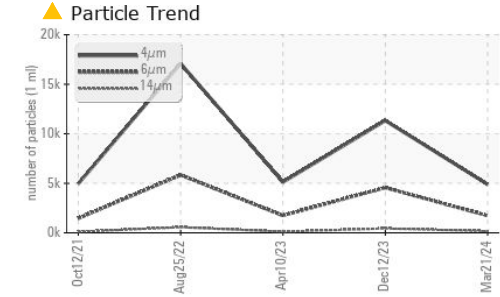
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>4889</b>	11322	5119
Particles >6µm	ASTM D7647	>1300	<b>1729</b>	4557	1745
Particles >14µm	ASTM D7647	>80	<b>164</b>	435	109
Particles >21µm	ASTM D7647	>20	<b>30</b>	96	19
Particles >38µm	ASTM D7647	>4	<b>0</b>	4	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>19/18/15</b>	21/19/16	20/18/14

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	<b>0.40</b>	0.38	0.46

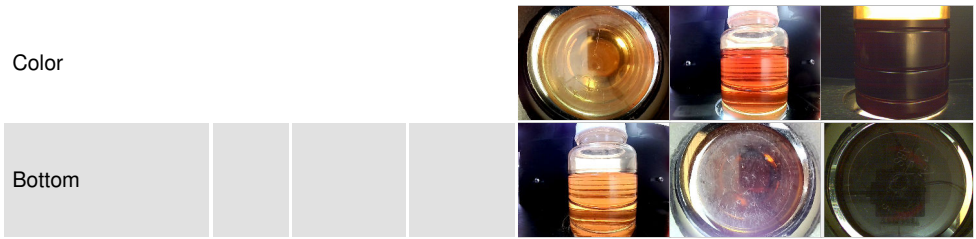
# OIL ANALYSIS REPORT



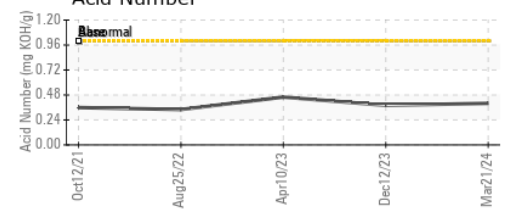
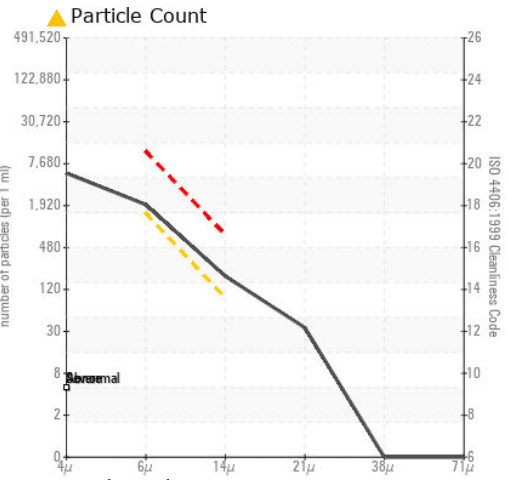
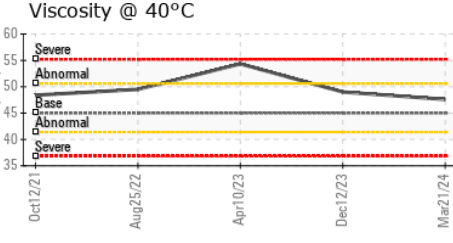
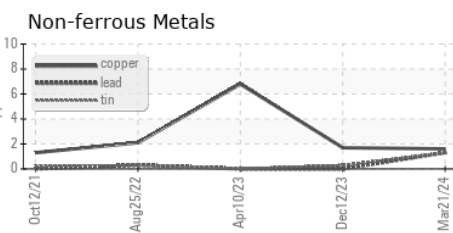
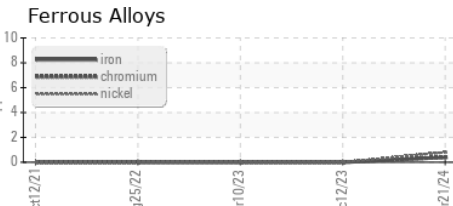
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	47.6	49.0 ▲ 54.34

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA007698 **Received** : 11 Apr 2024  
**Lab Number** : 06146598 **Tested** : 12 Apr 2024  
**Unique Number** : 10976676 **Diagnosed** : 15 Apr 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**AMAZON OAK 4**  
 1555 N CHRISMAN RD  
 TRACY, CA  
 US 95304  
 Contact: Service Manager  
 sparcase@amazon.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)