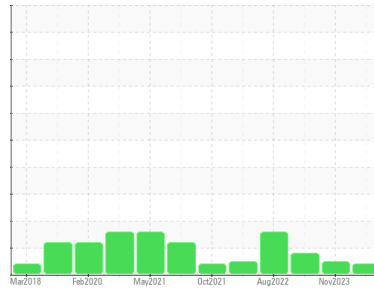




# OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id  
**KAESER SM 10 5241554 (S/N 1657)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**

**DIAGNOSIS**

**Recommendation**

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

**Wear**

All component wear rates are normal.

**Contamination**

Moderate concentration of visible dirt/debris 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>KC128625</b>	KC124777	KC111038
Sample Date	Client Info	<b>14 Jun 2024</b>	10 Nov 2023	02 May 2023
Machine Age	hrs	<b>28863</b>	26126	23808
Oil Age	hrs	<b>5055</b>	0	5766
Oil Changed	Client Info	<b>Changed</b>	N/A	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	ATTENTION

**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>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	0	0
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>7</b>	4	5
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 90	<b>20</b>	27	37
Calcium	ppm	ASTM D5185m 2	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185m	<b>0</b>	0	3
Zinc	ppm	ASTM D5185m	<b>14</b>	2	5

**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>5</b>	6	6
Sodium	ppm	ASTM D5185m	<b>9</b>	20	18
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	4
Water	%	ASTM D6304 >0.05	<b>0.019</b>	0.010	0.009
ppm Water	ppm	ASTM D6304 >500	<b>191</b>	106.2	97.3

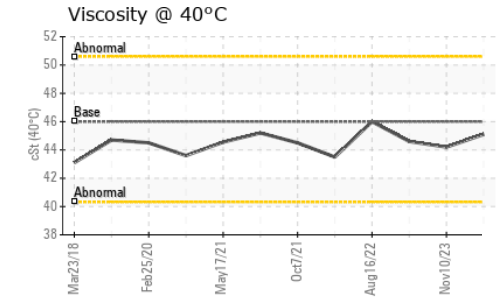
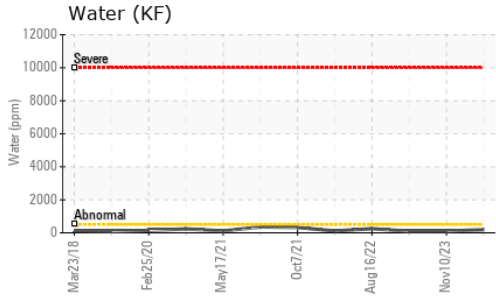
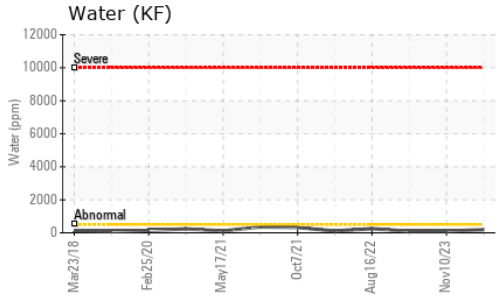
**FLUID CLEANLINESS**

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	---	2100	3583
Particles >6µm	ASTM D7647 >1300	---	665	1374
Particles >14µm	ASTM D7647 >80	---	26	30
Particles >21µm	ASTM D7647 >20	---	8	3
Particles >38µm	ASTM D7647 >4	---	1	0
Particles >71µm	ASTM D7647 >3	---	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	---	18/17/12	19/18/12

**FLUID DEGRADATION**

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.32</b>	0.30	0.30

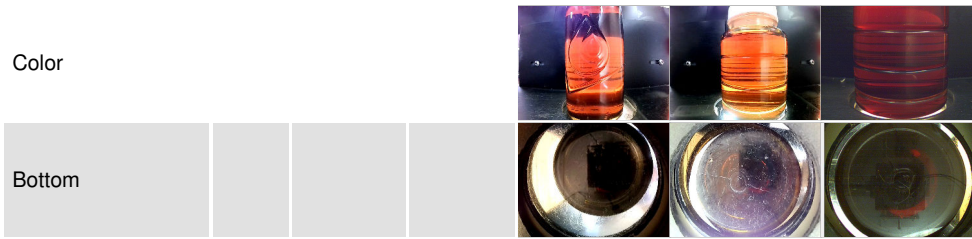
# OIL ANALYSIS REPORT



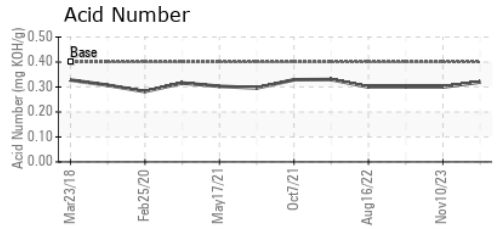
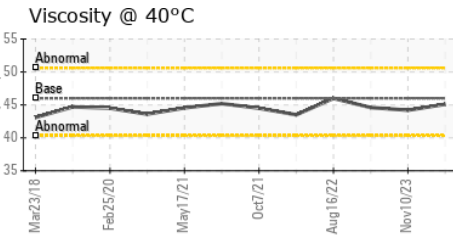
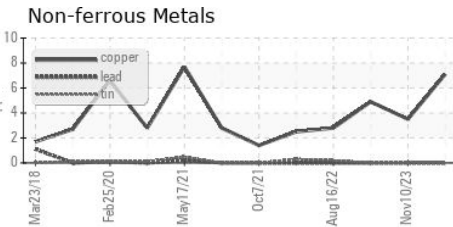
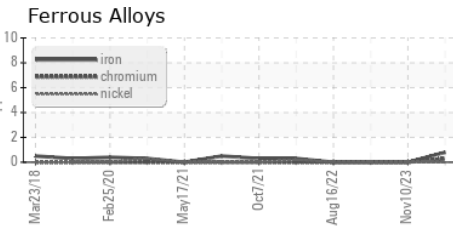
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	NONE
Sand/Dirt	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	<b>45.1</b>	44.2

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC128625  
**Lab Number** : 06214669  
**Unique Number** : 11087533  
**Test Package** : IND 2

**Received** : 19 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Don Baldrige

**FEDEX**  
 2050 E AURORA RD  
 TWINSBURG, OH  
 US 44087  
 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: