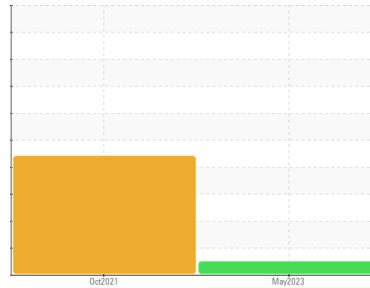


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**5199858 (S/N 1559)**

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**

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

**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>KCP53760</b>	KCP38700	---
Sample Date	Client Info	<b>16 May 2023</b>	11 Oct 2021	---
Machine Age	hrs	Client Info	<b>44414</b>	28187
Oil Age	hrs	Client Info	<b>1</b>	0
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>NORMAL</b>	ABNORMAL	---

**WEAR METALS** method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>50	<b>6</b>	0	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m	100	<b>2</b>	<1	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	1	---
Phosphorus	ppm	ASTM D5185m	0	<b>1</b>	6	---
Zinc	ppm	ASTM D5185m	0	<b>4</b>	0	---
Sulfur	ppm	ASTM D5185m	23500	<b>24776</b>	0	---

**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	---
Sodium	ppm	ASTM D5185m		<b>1</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	---
Water	%	ASTM D6304	>0.05	<b>0.009</b>	▲ 0.423	---
ppm Water	ppm	ASTM D6304	>500	<b>93.2</b>	▲ 4230	---

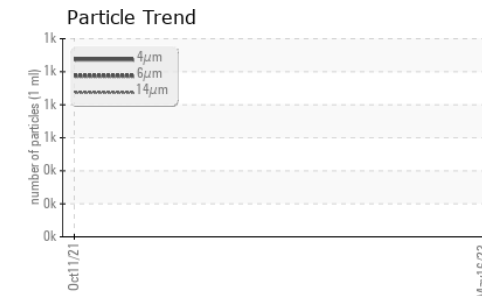
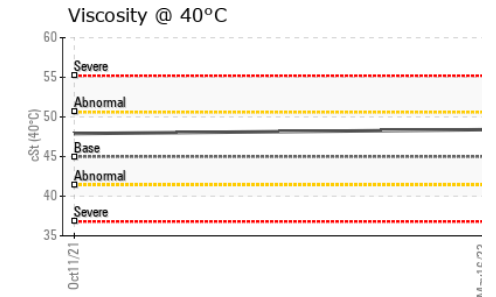
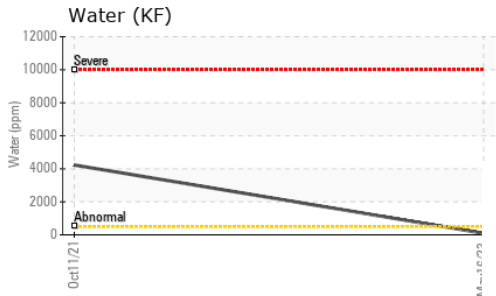
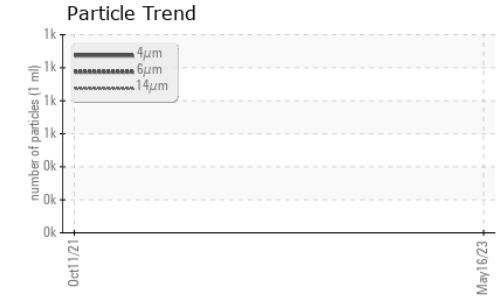
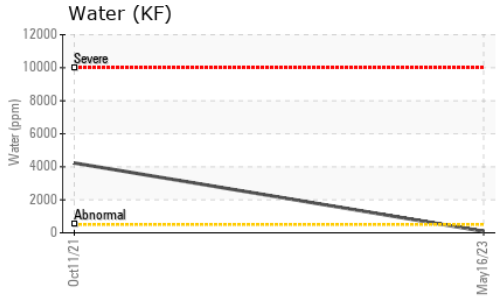
**FLUID CLEANLINESS** method limit/base current history1 history2

Particles >4µm	ASTM D7647		<b>1097</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>304</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>20</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>4</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>17/15/11</b>	---	---

**FLUID DEGRADATION** method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.42</b>	0.375	---
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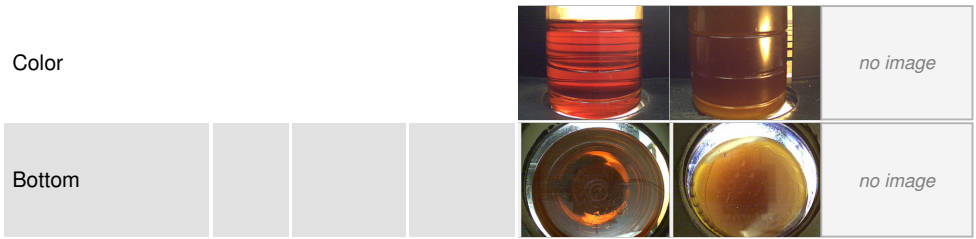
# OIL ANALYSIS REPORT



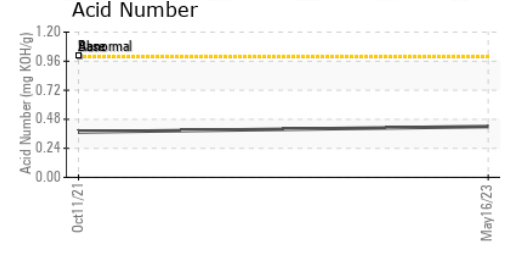
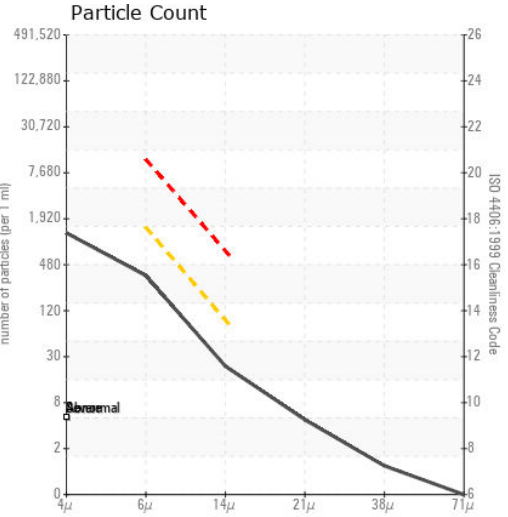
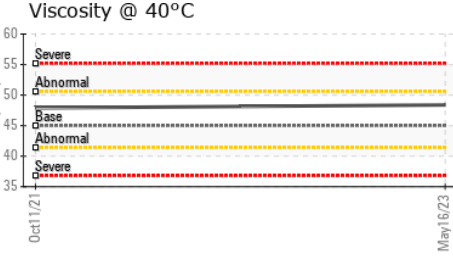
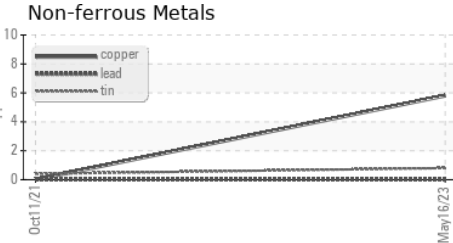
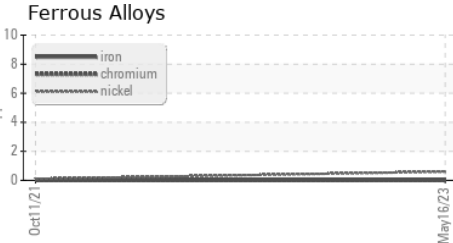
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	● HAZY
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	▲ 1.0

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	48.4	47.9

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP53760 **Received** : 19 May 2023  
**Lab Number** : 05851880 **Tested** : 22 May 2023  
**Unique Number** : 10481235 **Diagnosed** : 23 May 2023 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**PENUMBRA**  
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 US 94502  
 Contact: GEORGE TAY  
 georgetay@penumbrainc.com  
 T:  
 F:

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)