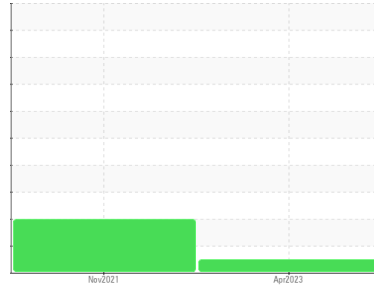




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**5778983 (S/N 1040)**  
 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	history 1	history 2
Sample Number	Client Info			<b>KCPA002744</b>	KCP39900	---
Sample Date	Client Info			<b>17 Apr 2023</b>	03 Nov 2021	---
Machine Age	hrs	Client Info		<b>40511</b>	31767	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	<1	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>50	<b>7</b>	12	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

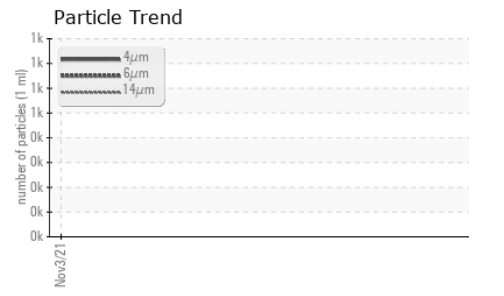
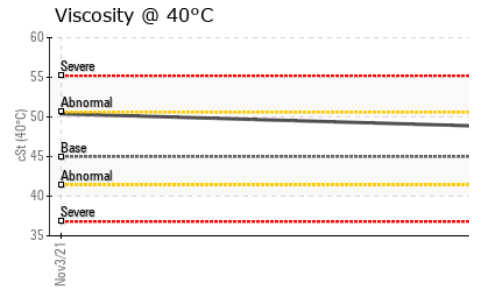
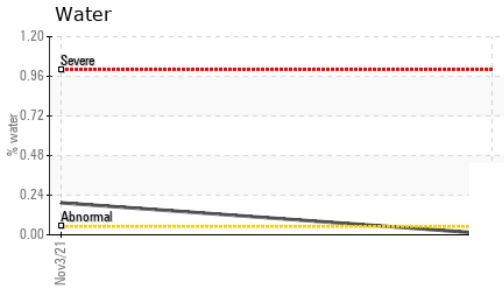
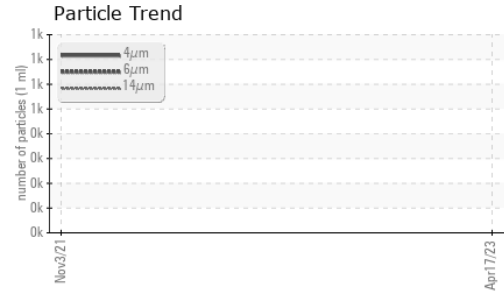
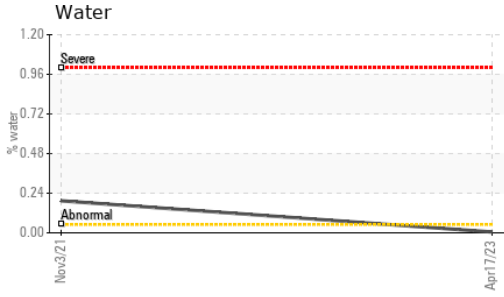
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	<b>0</b>	1	---
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m	100	<b>19</b>	0	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Phosphorus	ppm	ASTM D5185m	0	<b>4</b>	3	---
Zinc	ppm	ASTM D5185m	0	<b>8</b>	0	---
Sulfur	ppm	ASTM D5185m	23500	<b>22176</b>	17757	---

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	8	---
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Water	%	ASTM D6304	>0.05	<b>0.005</b>	▲ 0.194	---
ppm Water	ppm	ASTM D6304	>500	<b>53.6</b>	▲ 1940	---

FLUID CLEANLINESS		method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647		<b>711</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>147</b>	---	---
Particles >14µm		ASTM D7647	>80	<b>8</b>	---	---
Particles >21µm		ASTM D7647	>20	<b>2</b>	---	---
Particles >38µm		ASTM D7647	>4	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>17/14/10</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.55</b>	0.672	---

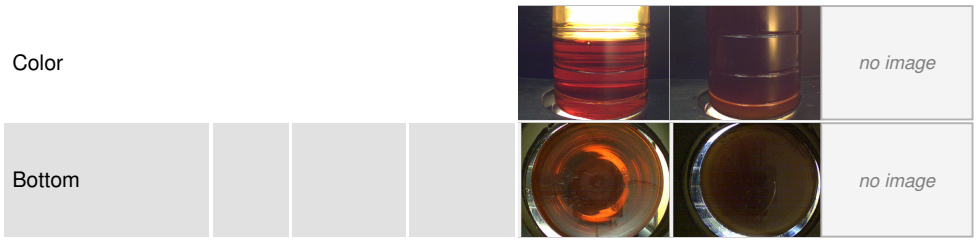
# OIL ANALYSIS REPORT



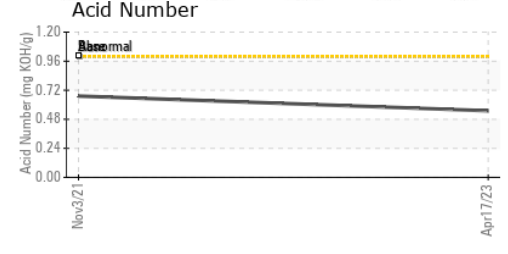
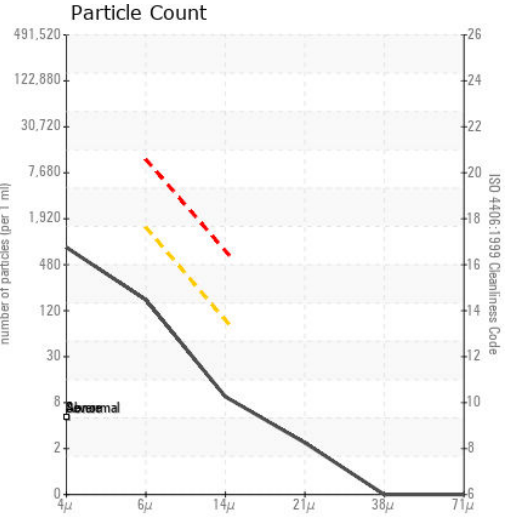
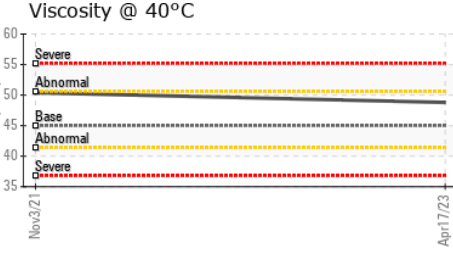
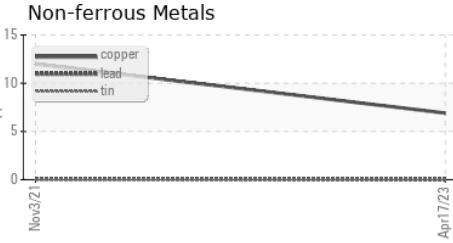
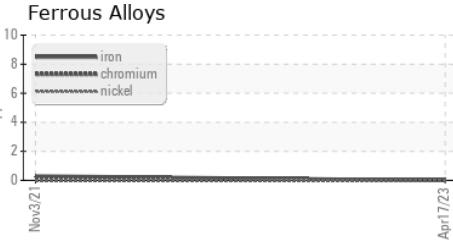
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	48.8	50.4

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA002744 **Received** : 20 Apr 2023  
**Lab Number** : 05825707 **Diagnosed** : 24 Apr 2023  
**Unique Number** : 10433790 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**BENCHMARK ELECTRONICS**  
 4021 PIKE LN  
 CONCORD, CA  
 US 94520  
 Contact: JEFF TRAMONTANA  
 JEFF.TRAMONTANA@BENCH.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)