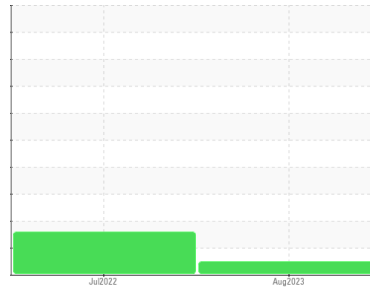


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**7955811 (S/N 7745)**

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	history1	history2
Sample Number	Client Info			<b>KCPA006599</b>	KCP49753	---
Sample Date	Client Info			<b>17 Aug 2023</b>	15 Jul 2022	---
Machine Age	hrs	Client Info		<b>3288</b>	1418	---
Oil Age	hrs	Client Info		<b>0</b>	1418	---
Oil Changed	Client Info			<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
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>	0	---
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>3</b>	3	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

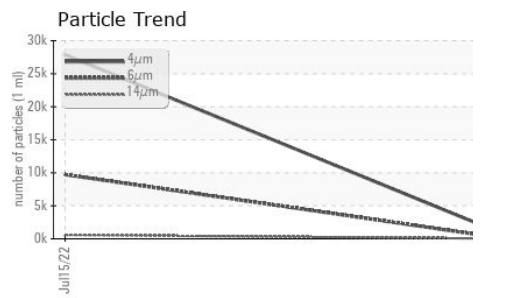
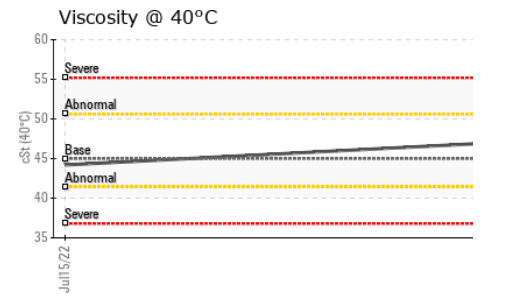
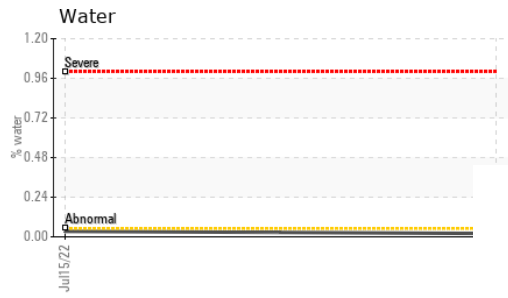
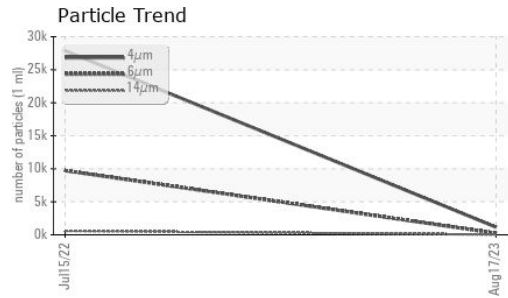
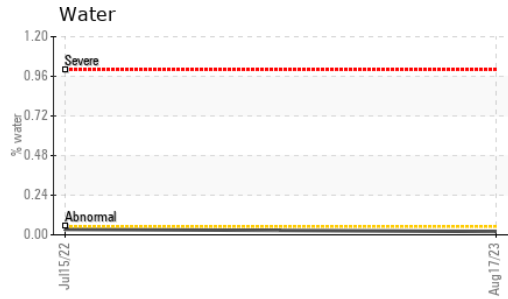
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m	90	<b>0</b>	9	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	100	<b>48</b>	54	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Phosphorus	ppm	ASTM D5185m	0	<b>&lt;1</b>	4	---
Zinc	ppm	ASTM D5185m	0	<b>0</b>	0	---
Sulfur	ppm	ASTM D5185m	23500	<b>22093</b>	16331	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	---
Sodium	ppm	ASTM D5185m		<b>13</b>	22	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---
Water	%	ASTM D6304	>0.05	<b>0.020</b>	0.033	---
ppm Water	ppm	ASTM D6304	>500	<b>204.5</b>	333.7	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>1154</b>	27877	---
Particles >6µm		ASTM D7647	>1300	<b>240</b>	▲ 9728	---
Particles >14µm		ASTM D7647	>80	<b>24</b>	▲ 590	---
Particles >21µm		ASTM D7647	>20	<b>7</b>	▲ 44	---
Particles >38µm		ASTM D7647	>4	<b>0</b>	1	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>17/15/12</b>	▲ 22/20/16	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.36</b>	0.36	---

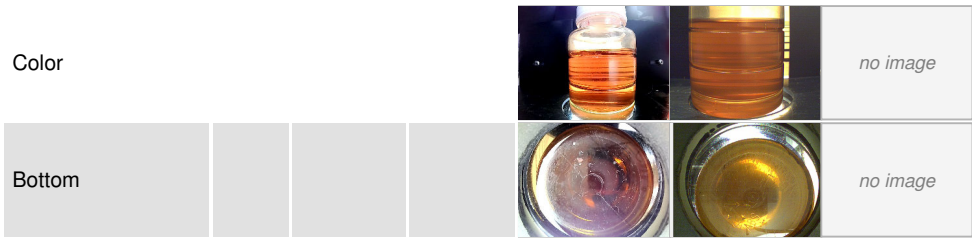
# OIL ANALYSIS REPORT



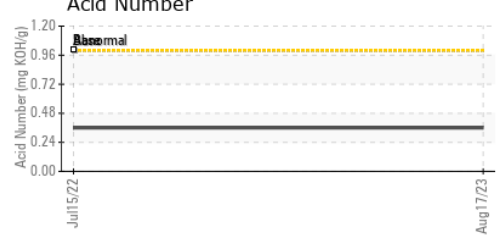
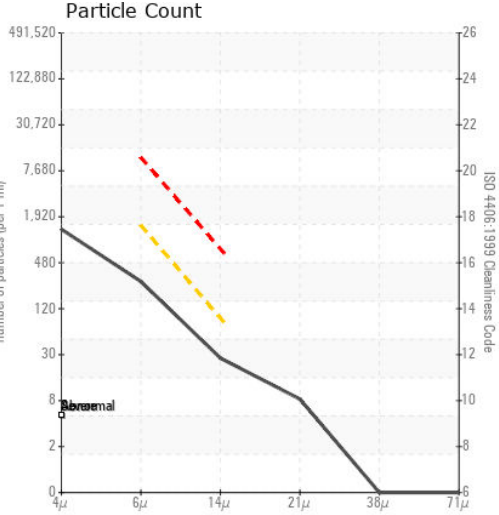
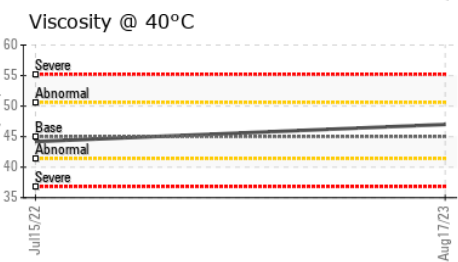
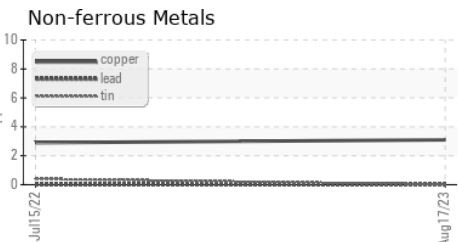
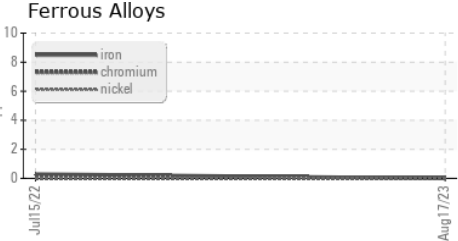
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	47.0	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.** : KCPA006599 **Received** : 30 Aug 2023  
**Lab Number** : 05938874 **Diagnosed** : 31 Aug 2023  
**Unique Number** : 10629486 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**HELMUT GUENSCHEL INC**  
 10 EMALA AVE  
 MIDDLE RIVER, MD  
 US 21220  
 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)

T:  
F: