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# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id  
**KAESER 6699956**

Component  
**Compressor**

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

## 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KCP40038</b>	KCP50492	KCP30156
Sample Date		Client Info		<b>15 Sep 2023</b>	11 Oct 2022	09 Sep 2020
Machine Age	hrs	Client Info		<b>7029</b>	4636	1604
Oil Age	hrs	Client Info		<b>2393</b>	1475	754
Filter Age	hrs	Client Info		<b>2393</b>	1475	754
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>0</b>	<1	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>12</b>	11	7
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	VLITE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

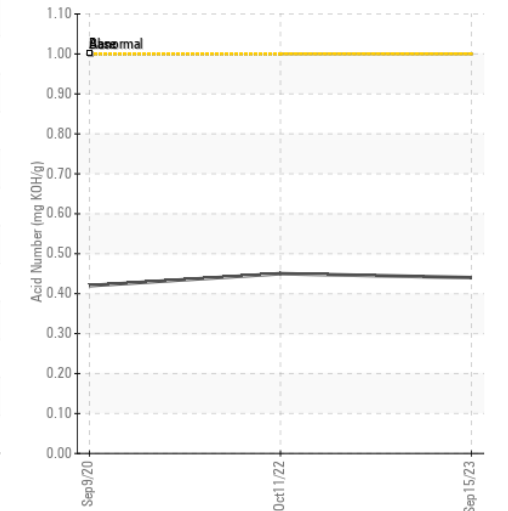
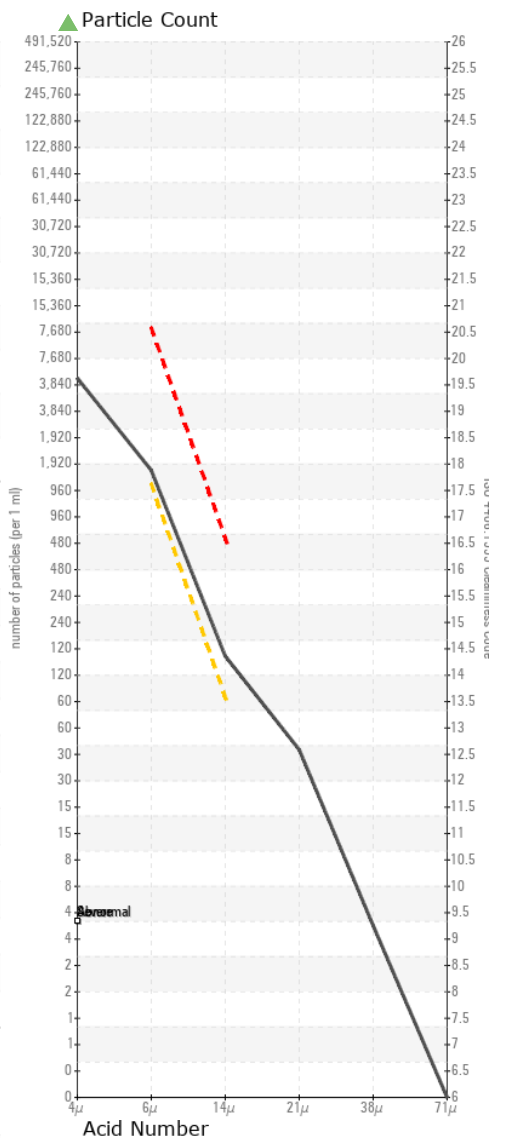
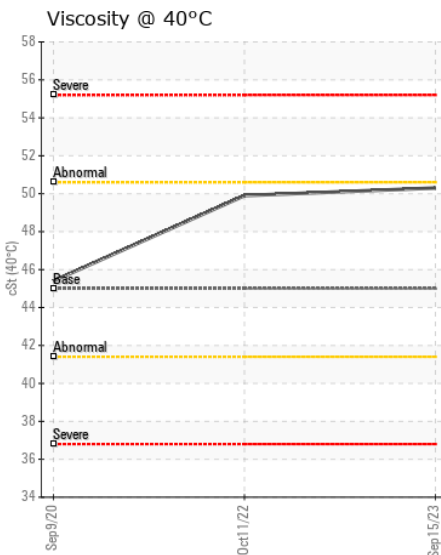
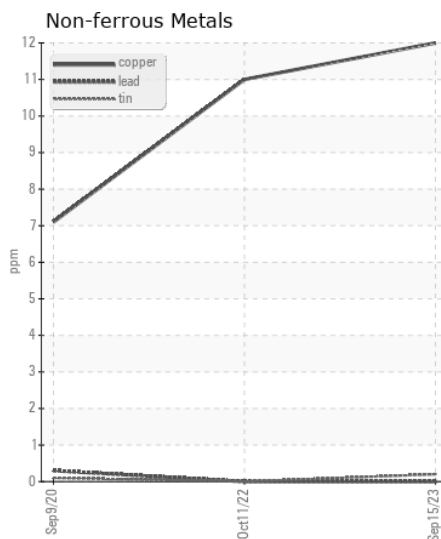
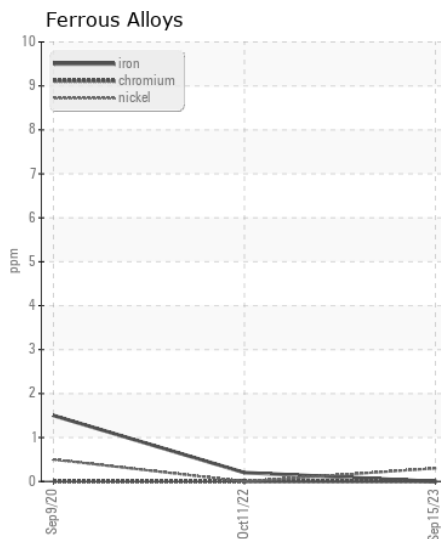
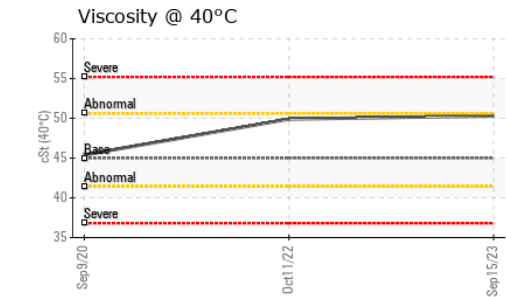
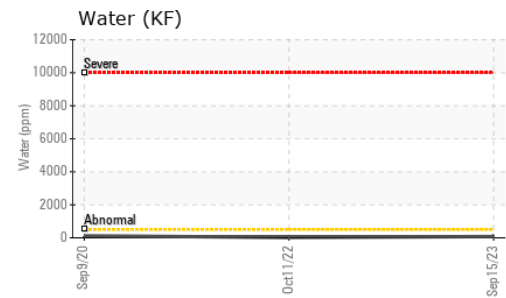
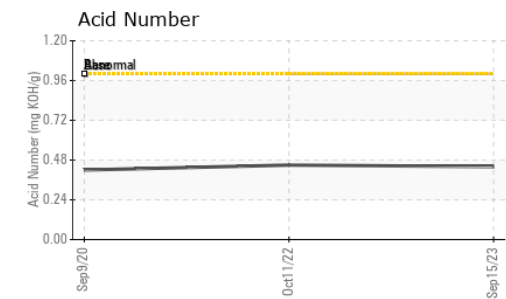
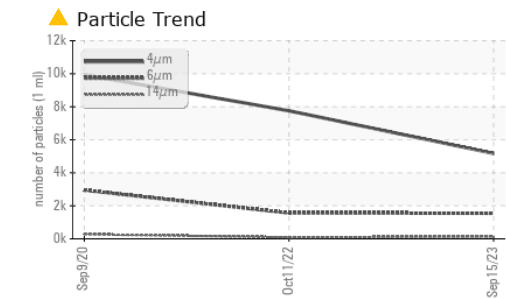
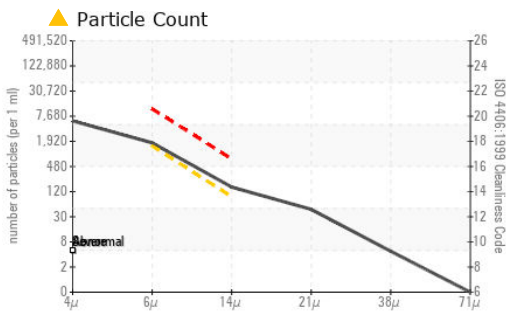
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	2
Water	%	ASTM D6304	>0.05	<b>0.007</b>	0.002	0.012
ppm Water	ppm	ASTM D6304	>500	<b>78.9</b>	16.0	129.1
Particles >4µm		ASTM D7647		<b>5172</b>	7754	9943
Particles >6µm		ASTM D7647	>1300	<b>▲ 1548</b>	▲ 1560	▲ 2949
Particles >14µm		ASTM D7647	>80	<b>▲ 136</b>	▲ 85	▲ 275
Particles >21µm		ASTM D7647	>20	<b>▲ 40</b>	23	▲ 100
Particles >38µm		ASTM D7647	>4	<b>4</b>	1	▲ 13
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	:-/17/13	<b>▲ 20/18/14</b>	▲ 20/18/14	▲ 19/15
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	10
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	12
Barium	ppm	ASTM D5185m	90	<b>0</b>	1	8
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	100	<b>1</b>	19	51
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	7
Phosphorus	ppm	ASTM D5185m	0	<b>2</b>	4	5
Zinc	ppm	ASTM D5185m	0	<b>0</b>	8	9
Sulfur	ppm	ASTM D5185m	23500	<b>19337</b>	22015	17522
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.44</b>	0.45	0.420
Visc @ 40°C	cSt	ASTM D445	45	<b>50.3</b>	49.9	45.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP40038  
**Lab Number** : 05957673  
**Unique Number** : 10658886  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Received** : 21 Sep 2023  
**Tested** : 22 Sep 2023  
**Diagnosed** : 22 Sep 2023 - Doug Bogart

**GLAZERS WINE & SPIRITS**  
 22800 E 19TH AVE  
 AURORA, CO  
 US 80019  
 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: