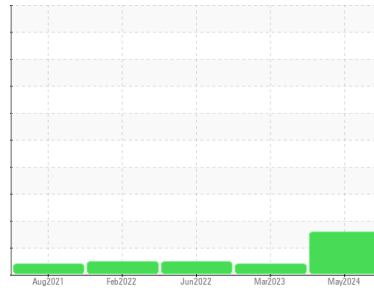




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area

[9592]

Machine Id

KAESER CSD 75 7751125 (S/N 1184)

Component

Compressor

Fluid

KAESER SIGMA (OEM) S-460 (--- GAL)

### 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.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of particulates 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>KC129472</b>	KC102011	KC17830
Sample Date	Client Info			<b>22 May 2024</b>	09 Mar 2023	23 Jun 2022
Machine Age	hrs	Client Info		<b>18796</b>	11598	8588
Oil Age	hrs	Client Info		<b>7197</b>	5010	2000
Oil Changed	Client Info			<b>Changed</b>	Changed	N/A
Sample Status				<b>ATTENTION</b>	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</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>0</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>15</b>	2	8
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	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	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	90	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m	2	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>0</b>	<1	11
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0

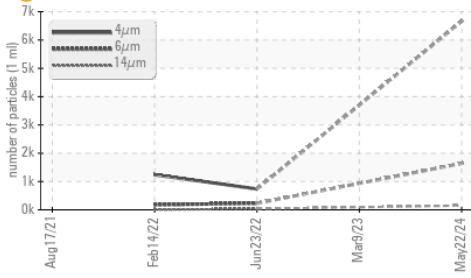
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water	%	ASTM D6304	>0.05	<b>0.007</b>	0.004	0.005
ppm Water	ppm	ASTM D6304	>500	<b>75</b>	42.3	58.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>6660</b>	---	737
Particles >6µm		ASTM D7647	>1300	<b>1639</b>	---	231
Particles >14µm		ASTM D7647	>80	<b>149</b>	---	33
Particles >21µm		ASTM D7647	>20	<b>36</b>	---	12
Particles >38µm		ASTM D7647	>4	<b>1</b>	---	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>20/18/14</b>	---	17/15/12

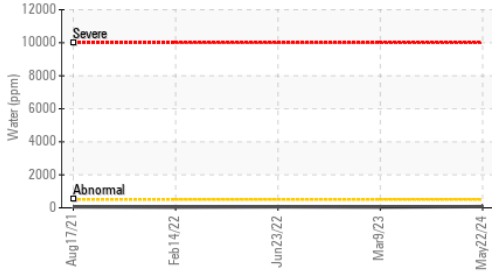
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.51</b>	0.06	0.50

# OIL ANALYSIS REPORT

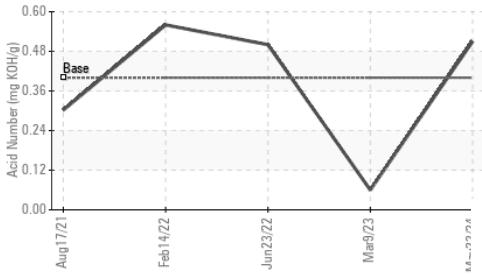
## Particle Trend



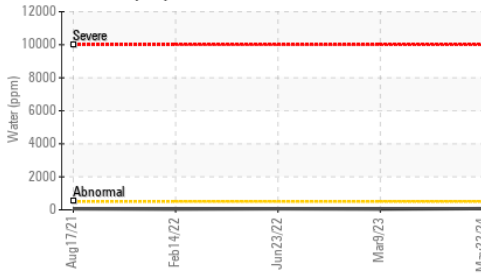
## Water (KF)



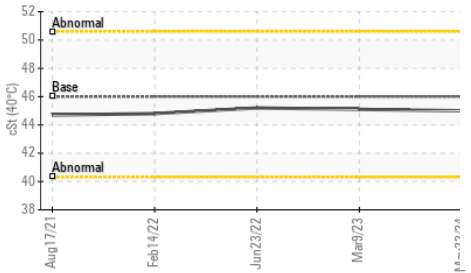
## Acid Number



## Water (KF)



## Viscosity @ 40°C

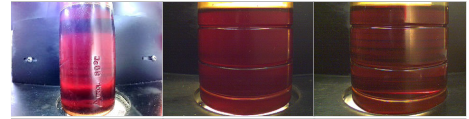


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

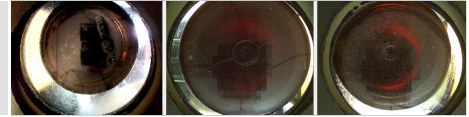
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	45.0	45.1	45.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

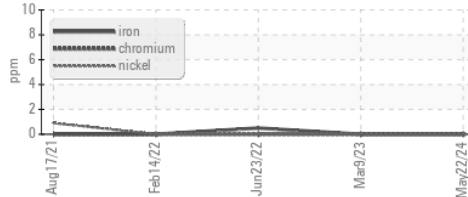


Bottom

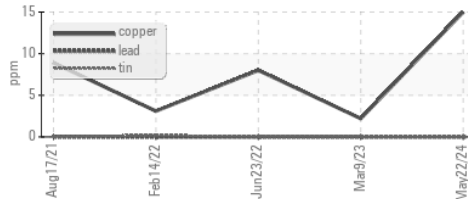


## GRAPHS

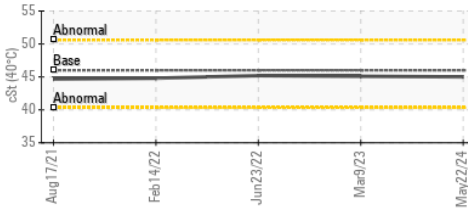
### Ferrous Alloys



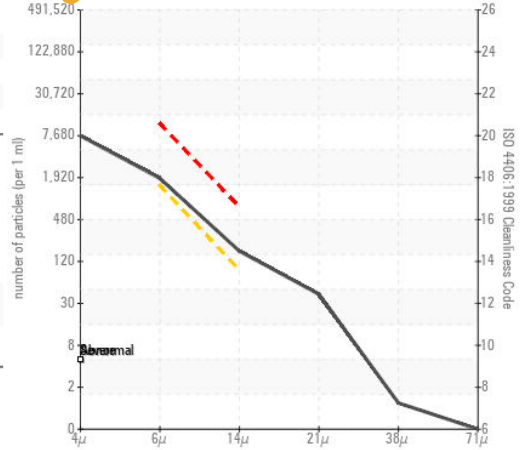
### Non-ferrous Metals



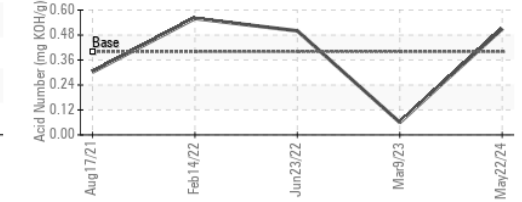
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KC129472

Lab Number : 06197642

Unique Number : 11059765

Test Package : IND 2

Received : 03 Jun 2024

Tested : 04 Jun 2024

Diagnosed : 04 Jun 2024 - Don Baldrige

WINNEBAGO IND. INC.

605 W. CRYSTAL LAKE RD.

FOREST CITY, IA

US 50436

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: