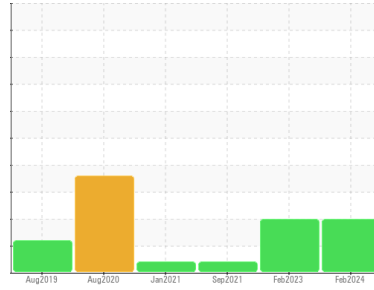




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER SM 15 6568570 (S/N 1021)

Component
Compressor

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high 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		KC122665	KC105658	KC97941
Sample Date	Client Info		28 Feb 2024	03 Feb 2023	08 Sep 2021
Machine Age	hrs	Client Info	9360	8055	5657
Oil Age	hrs	Client Info	0	2398	1700
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	<1	<1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >10	0	<1	<1
Lead	ppm	ASTM D5185m >10	0	<1	0
Copper	ppm	ASTM D5185m >50	8	4	7
Tin	ppm	ASTM D5185m >10	<1	0	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	14
Barium	ppm	ASTM D5185m 90	4	55	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 90	48	71	33
Calcium	ppm	ASTM D5185m 2	<1	2	0
Phosphorus	ppm	ASTM D5185m	2	0	<1
Zinc	ppm	ASTM D5185m	9	5	10

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	0	<1	0
Sodium	ppm	ASTM D5185m	16	8	6
Potassium	ppm	ASTM D5185m >20	0	<1	0
Water	%	ASTM D6304 >0.05	0.013	0.014	0.024
ppm Water	ppm	ASTM D6304 >500	139	143.5	243.3

FLUID CLEANLINESS

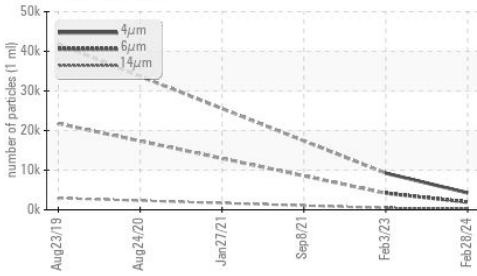
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		4265	9254	---
Particles >6µm	ASTM D7647 >1300		▲ 1934	▲ 4187	---
Particles >14µm	ASTM D7647 >80		▲ 398	▲ 448	---
Particles >21µm	ASTM D7647 >20		▲ 153	▲ 84	---
Particles >38µm	ASTM D7647 >4		▲ 12	▲ 5	---
Particles >71µm	ASTM D7647 >3		1	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 19/18/16	▲ 20/19/16	---

FLUID DEGRADATION

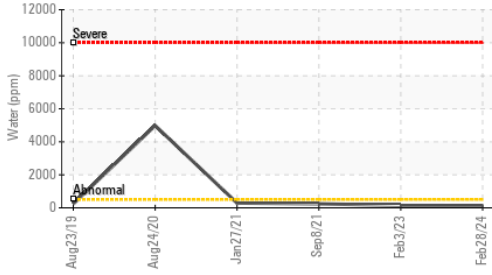
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.36	0.37	0.302

OIL ANALYSIS REPORT

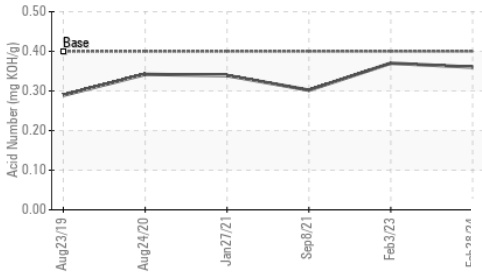
▲ Particle Trend



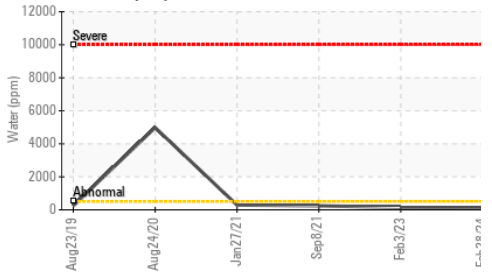
Water (KF)



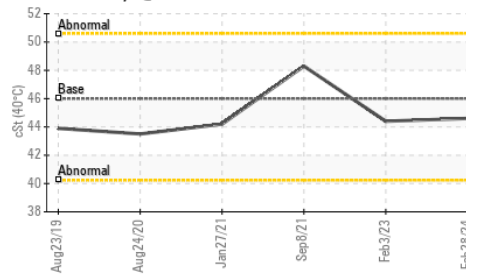
Acid Number



Water (KF)



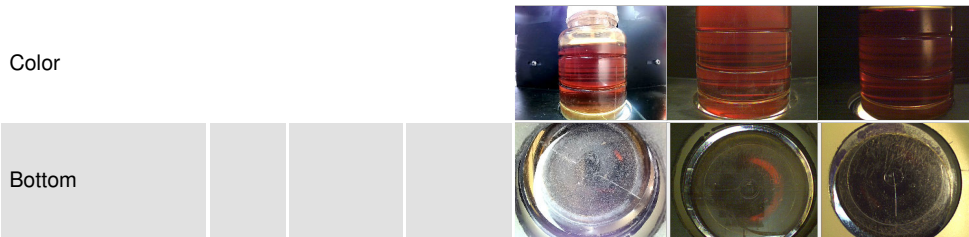
Viscosity @ 40°C



VISUAL	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	▲ MODER
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

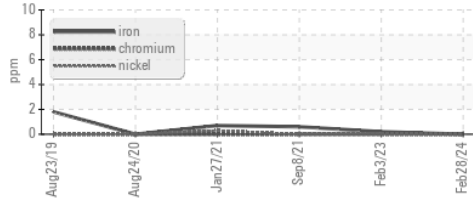
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	44.6	44.4	48.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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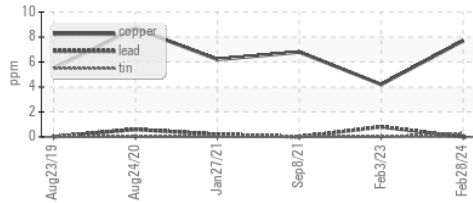


GRAPHS

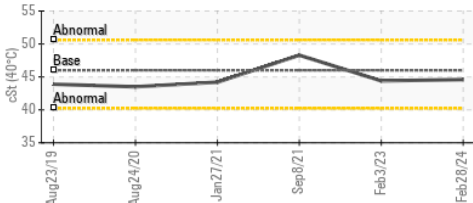
Ferrous Alloys



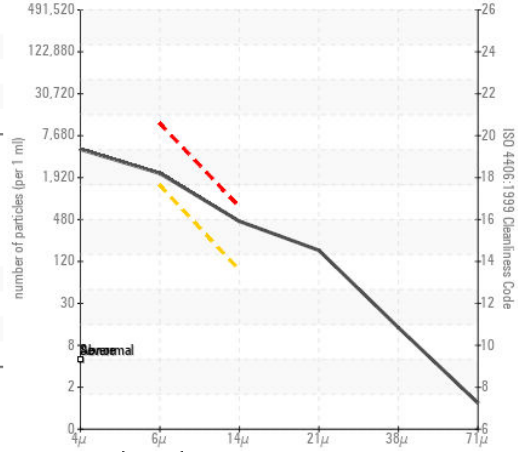
Non-ferrous Metals



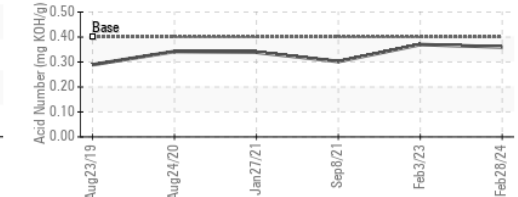
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

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

Sample No. : KC122665

Lab Number : 06123635

Unique Number : 10937786

Test Package : IND 2

Received : 20 Mar 2024

Tested : 25 Mar 2024

Diagnosed : 25 Mar 2024 - Jonathan Hester

BROWN AUTO BODY

6140 FANTASY DR

TOLEDO, OH

US 43615

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: