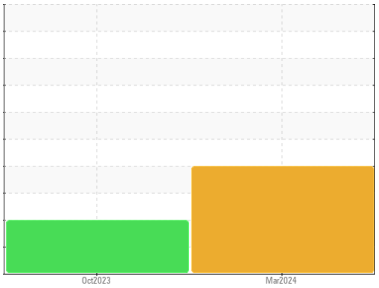
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER 4357599
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA013592**	KCPA000503	---
Sample Date		Client Info		**14 Mar 2024**	20 Oct 2023	---
Machine Age	hrs	Client Info		**66794**	63293	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**Not Changd**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**3**	0	---
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	---
Nickel	ppm	ASTM D5185m	>3	**<1**	0	---
Titanium	ppm	ASTM D5185m	>3	**0**	<1	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	**<1**	3	---
Lead	ppm	ASTM D5185m	>10	**0**	0	---
Copper	ppm	ASTM D5185m	>50	**8**	14	---
Tin	ppm	ASTM D5185m	>10	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	---
Barium	ppm	ASTM D5185m	90	**2**	0	---
Molybdenum	ppm	ASTM D5185m	0	**3**	0	---
Manganese	ppm	ASTM D5185m		**<1**	0	---
Magnesium	ppm	ASTM D5185m	100	**13**	<1	---
Calcium	ppm	ASTM D5185m	0	**<1**	0	---
Phosphorus	ppm	ASTM D5185m	0	**3**	0	---
Zinc	ppm	ASTM D5185m	0	**11**	14	---
Sulfur	ppm	ASTM D5185m	23500	**21157**	19430	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	0	---
Sodium	ppm	ASTM D5185m		**3**	0	---
Potassium	ppm	ASTM D5185m	>20	**0**	1	---
Water	%	ASTM D6304	>0.05	▲ **0.215**	▲ 0.247	---
ppm Water	ppm	ASTM D6304	>500	▲ **2150**	▲ 2470	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**3871**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **2109**	---	---
Particles >14µm		ASTM D7647	>80	▲ **359**	---	---
Particles >21µm		ASTM D7647	>20	▲ **121**	---	---
Particles >38µm		ASTM D7647	>4	▲ **19**	---	---
Particles >71µm		ASTM D7647	>3	▲ **2**	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **19/18/16**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.33**	0.35	---

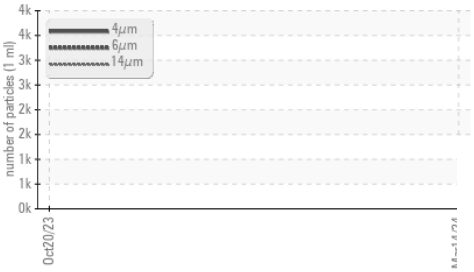
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Water (KF)

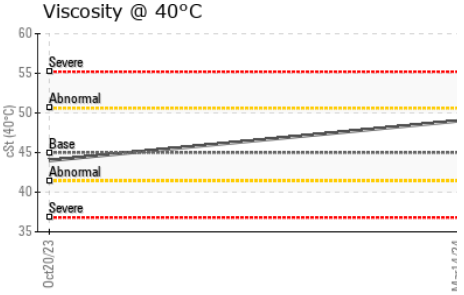
Particle Trend

Particle Trend



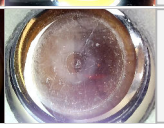
Acid Number

Viscosity @ 40°C



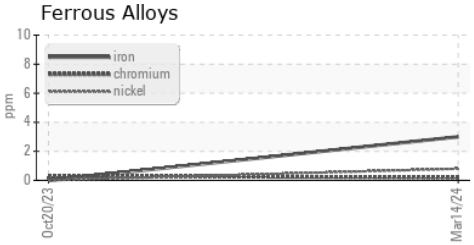
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.05	**0.2%**	▲ 0.2%	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**49.0**	44.0	---

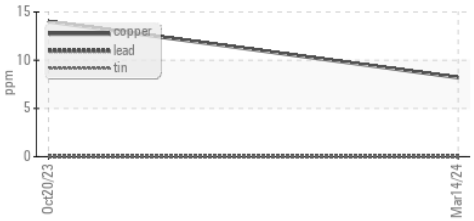
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

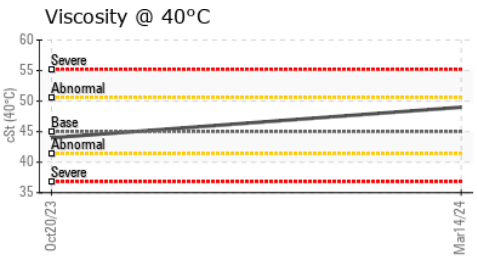
Ferrous Alloys



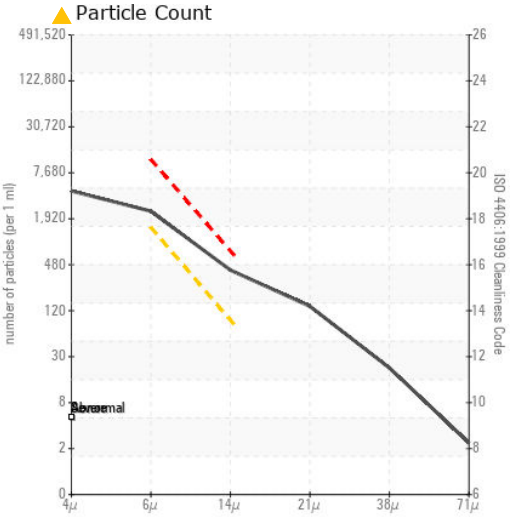
Non-ferrous Metals



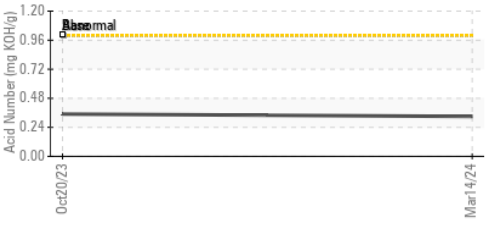
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013592 **Received** : 19 Mar 2024
Lab Number : 06123214 **Tested** : 26 Mar 2024
Unique Number : 10937365 **Diagnosed** : 26 Mar 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Certificate L2367

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)

SEAWORLD SAN ANTONIO
10500 SEA WORLD DR
SAN ANTONIO, TX
US 78251
Contact: ARTHUR HART
arthur.hart@seaworld.com
T:
F: