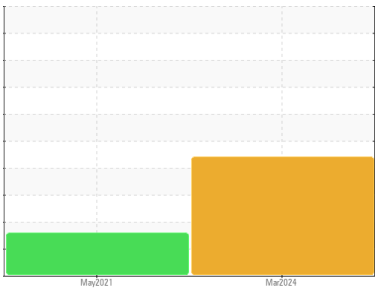
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
5817183 (S/N 1025)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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
Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. Free water present.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA016335**	KCP33486	---
Sample Date		Client Info		**28 Mar 2024**	21 May 2021	---
Machine Age	hrs	Client Info		**36691**	20726	---
Oil Age	hrs	Client Info		**0**	10658	---
Oil Changed		Client Info		**Not Changd**	Changed	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**<1**	0	---
Chromium	ppm	ASTM D5185m	>10	**<1**	0	---
Nickel	ppm	ASTM D5185m	>3	**<1**	0	---
Titanium	ppm	ASTM D5185m	>3	**<1**	0	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	**2**	0	---
Lead	ppm	ASTM D5185m	>10	**0**	<1	---
Copper	ppm	ASTM D5185m	>50	**8**	6	---
Tin	ppm	ASTM D5185m	>10	**<1**	0	---
Antimony	ppm	ASTM D5185m		**---**	0	---
Vanadium	ppm	ASTM D5185m		**<1**	0	---
Cadmium	ppm	ASTM D5185m		**<1**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	---
Barium	ppm	ASTM D5185m	90	**0**	<1	---
Molybdenum	ppm	ASTM D5185m	0	**<1**	0	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m	100	**30**	51	---
Calcium	ppm	ASTM D5185m	0	**4**	0	---
Phosphorus	ppm	ASTM D5185m	0	**<1**	0	---
Zinc	ppm	ASTM D5185m	0	**51**	77	---
Sulfur	ppm	ASTM D5185m	23500	**20538**	17104	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**1**	0	---
Sodium	ppm	ASTM D5185m		**9**	25	---
Potassium	ppm	ASTM D5185m	>20	**3**	5	---
Water	%	ASTM D6304	>0.05	▲ **0.129**	0.020	---
ppm Water	ppm	ASTM D6304	>500	▲ **1290**	206.9	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	11135	---
Particles >6µm		ASTM D7647	>1300	**---**	▲ 3697	---
Particles >14µm		ASTM D7647	>80	**---**	▲ 472	---
Particles >21µm		ASTM D7647	>20	**---**	▲ 149	---
Particles >38µm		ASTM D7647	>4	**---**	▲ 7	---
Particles >71µm		ASTM D7647	>3	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	▲ 19/16	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.497**	0.395	---

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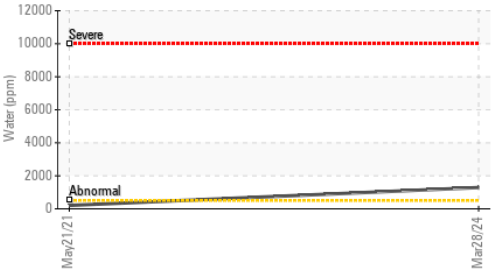
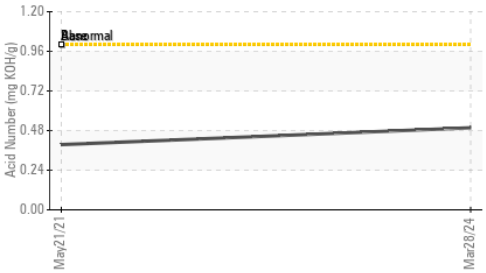
Water (KF)



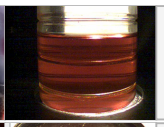
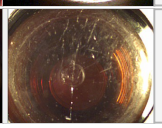
Acid Number



Viscosity @ 40°C

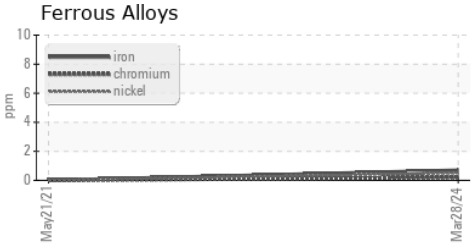
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	● **HAZY**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	---
Free Water	scalar	*Visual		▲ **1.0**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**46.4**	46.7	---

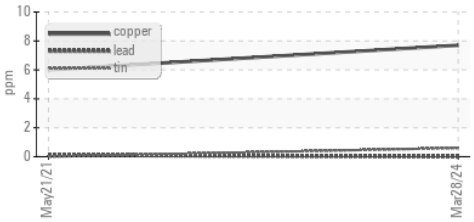
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

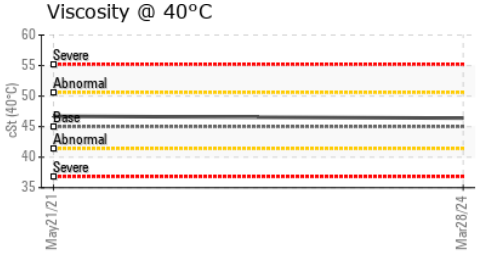
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA016335 **Received** : 03 Apr 2024
Lab Number : 06138061 **Tested** : 05 Apr 2024
Unique Number : 10962869 **Diagnosed** : 05 Apr 2024 - Don Baldridge
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

PENUMBRA
1321 HARBOR BAY PKWY
ALAMEDA, CA
US 94502
Contact: GEORGE TAY
georgetay@penumbrainc.com
T:
F:

Report Id: PENALACA [WUSCAR] 06138061 (Generated: 04/05/2024 19:43:09) Rev: 1
Contact/Location: GEORGE TAY - PENALACA