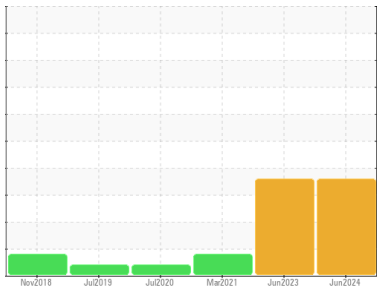
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER SM 10 5559954 (S/N 2178)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
Oil and 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 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		**KCPA019288**	KCPA002083	KCP27261
Sample Date		Client Info		**24 Jun 2024**	21 Jun 2023	25 Mar 2021
Machine Age	hrs	Client Info		**6072**	5987	5705
Oil Age	hrs	Client Info		**85**	0	1759
Oil Changed		Client Info		**Changed**	N/A	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	2	<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**	0	0
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**0**	6	1
Tin	ppm	ASTM D5185m	>10	**0**	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**	0	<1
Barium	ppm	ASTM D5185m	90	**0**	0	7
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	100	**4**	8	67
Calcium	ppm	ASTM D5185m	0	**0**	0	1
Phosphorus	ppm	ASTM D5185m	0	**0**	4	0
Zinc	ppm	ASTM D5185m	0	**27**	46	0
Sulfur	ppm	ASTM D5185m	23500	**24099**	22603	17300

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	<1	0
Sodium	ppm	ASTM D5185m		**<1**	3	18
Potassium	ppm	ASTM D5185m	>20	**0**	<1	2
Water	%	ASTM D6304	>0.05	▲ **0.195**	▲ 0.184	0.020
ppm Water	ppm	ASTM D6304	>500	▲ **1950**	▲ 1840	208.6

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	---	3597
Particles >6µm		ASTM D7647	>1300	**---**	---	866
Particles >14µm		ASTM D7647	>80	**---**	---	81
Particles >21µm		ASTM D7647	>20	**---**	---	25
Particles >38µm		ASTM D7647	>4	**---**	---	0
Particles >71µm		ASTM D7647	>3	**---**	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	---	17/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.23**	0.28	0.366

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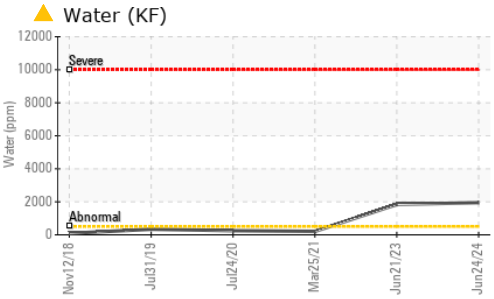
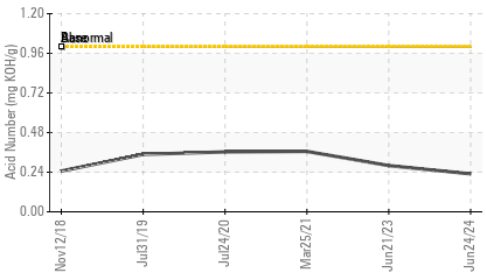
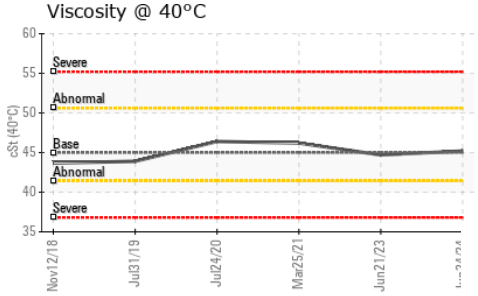
Water (KF)



Acid Number



Viscosity @ 40°C



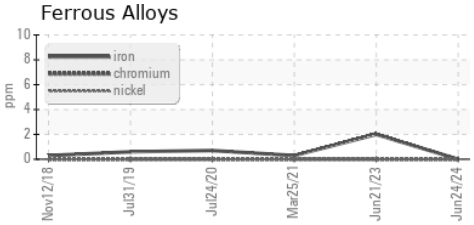
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	▲ 0.2%	NEG
Free Water	scalar	*Visual		● **2.0**	● 10.0	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**45.2**	44.7	46.2

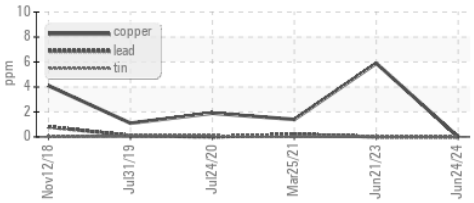
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

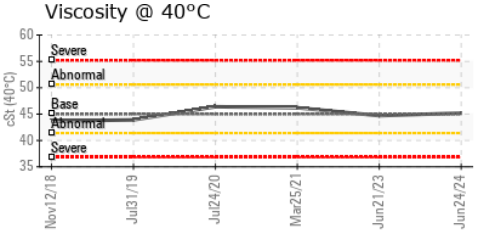
Ferrous Alloys



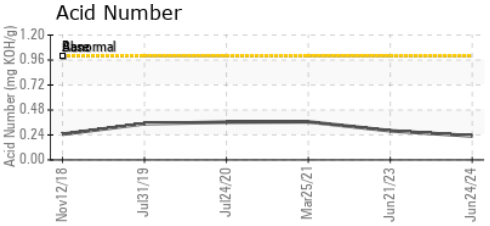
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA019288
Lab Number : 06233844
Unique Number : 11122678
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 11 Jul 2024
Tested : 13 Jul 2024
Diagnosed : 13 Jul 2024 - Don Baldridge

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)

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