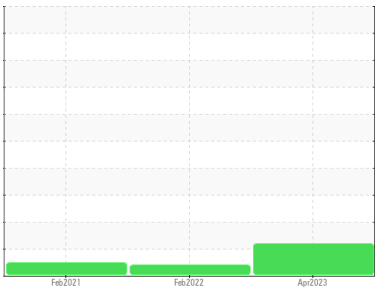
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
KAESER CSD 100 7272353 (S/N 1066)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
The aluminum level is abnormal. All other component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris 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		**KC102879**	KC73199	KC86542
Sample Date		Client Info		**05 Apr 2023**	22 Feb 2022	24 Feb 2021
Machine Age	hrs	Client Info		**19387**	14331	7559
Oil Age	hrs	Client Info		**536**	4545	4131
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**3**	1	<1
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m	>3	**0**	0	<1
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>10	▲ **11**	2	<1
Lead	ppm	ASTM D5185m	>10	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**2**	9	6
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	0	<1
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	10
Barium	ppm	ASTM D5185m	90	**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	<1
Manganese	ppm	ASTM D5185m		**2**	<1	0
Magnesium	ppm	ASTM D5185m	90	**23**	1	<1
Calcium	ppm	ASTM D5185m	2	**0**	0	0
Phosphorus	ppm	ASTM D5185m		**3**	11	2
Zinc	ppm	ASTM D5185m		**46**	28	22

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	1	0
Sodium	ppm	ASTM D5185m		**12**	3	1
Potassium	ppm	ASTM D5185m	>20	**11**	2	<1
Water	%	ASTM D6304	>0.05	**0.029**	0.007	0.010
ppm Water	ppm	ASTM D6304	>500	**296.7**	76.9	105.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	---	580
Particles >6µm		ASTM D7647	>1300	**---**	---	178
Particles >14µm		ASTM D7647	>80	**---**	---	19
Particles >21µm		ASTM D7647	>20	**---**	---	5
Particles >38µm		ASTM D7647	>4	**---**	---	0
Particles >71µm		ASTM D7647	>3	**---**	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	---	15/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	**0.31**	0.38	0.362

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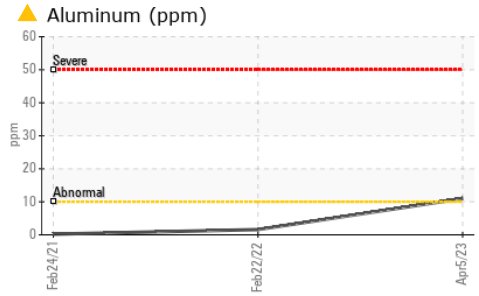
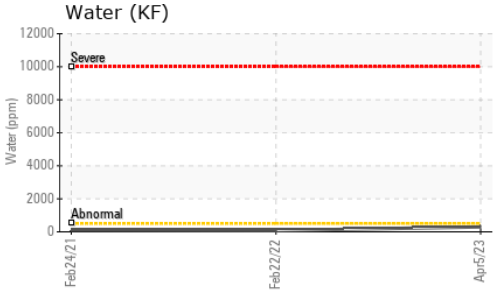
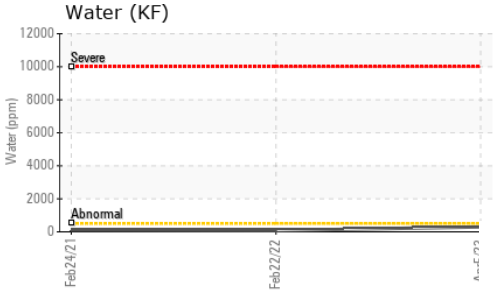
Aluminum (ppm)



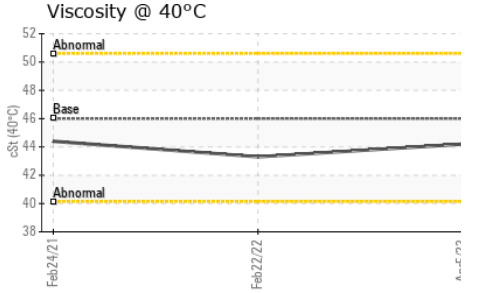
Water (KF)



Water (KF)

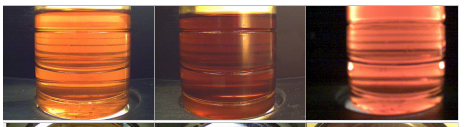
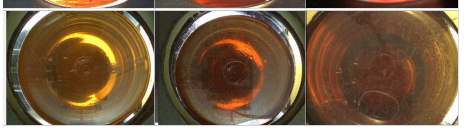


Viscosity @ 40°C



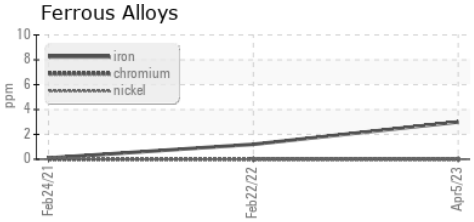
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	▲ MODER	NONE
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	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**44.2**	43.3	44.4

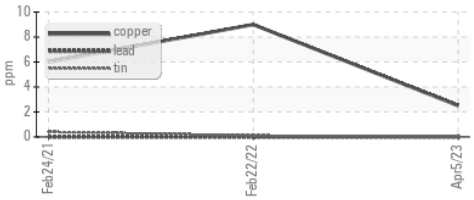
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

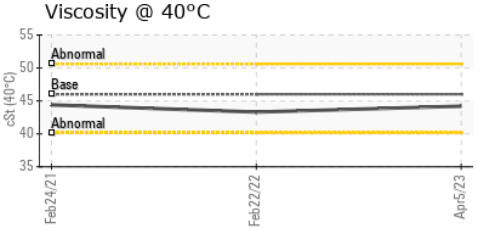
Ferrous Alloys



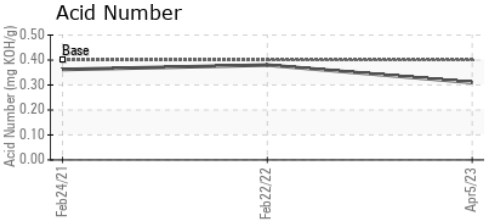
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC102879
Lab Number : 05816111
Unique Number : 10418903
Test Package : IND 2

Received : 10 Apr 2023
Tested : 13 Apr 2023
Diagnosed : 13 Apr 2023 - Jonathan Hester

FT. WALTON MACHINING, INC.
43 JET DR.
FT. WALTON BEACH, FL
US 32548
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: