KAESER COMPRESSORS
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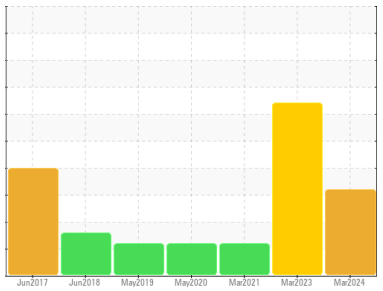
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER SX 5 5265161 (S/N 1365)
Component
Compressor
Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate 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. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA015966**	KCPA000480	KCP30081
Sample Date		Client Info		**26 Mar 2024**	09 Mar 2023	03 Mar 2021
Machine Age	hrs	Client Info		**13733**	9333	2954
Oil Age	hrs	Client Info		**3000**	0	1593
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**5**	7	1
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>3	**0**	0	<1
Titanium	ppm	ASTM D5185m	>3	**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**3**	1	<1
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**3**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m		**<1**	0	<1
Calcium	ppm	ASTM D5185m		**3**	0	0
Phosphorus	ppm	ASTM D5185m	500	**650**	353	469
Zinc	ppm	ASTM D5185m		**760**	506	115
Sulfur	ppm	ASTM D5185m		**2639**	1824	1669

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	<1	0
Sodium	ppm	ASTM D5185m		**9**	2	1
Potassium	ppm	ASTM D5185m	>20	**2**	0	<1
Water	%	ASTM D6304	>0.05	▲ **0.164**	▲ 0.170	0.006
ppm Water	ppm	ASTM D6304	>500	▲ **1640**	▲ 1700	60.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**1670**	4994	8700
Particles >6µm		ASTM D7647	>1300	**910**	▲ 2720	▲ 2658
Particles >14µm		ASTM D7647	>80	● **155**	▲ 463	● 95
Particles >21µm		ASTM D7647	>20	● **52**	▲ 156	● 21
Particles >38µm		ASTM D7647	>4	● **8**	▲ 24	0
Particles >71µm		ASTM D7647	>3	**1**	2	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	● **18/17/14**	▲ 19/19/16	▲ 19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	**0.92**	0.85	1.402

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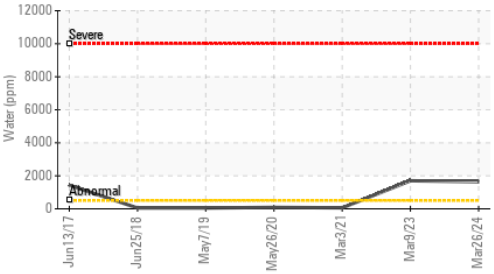
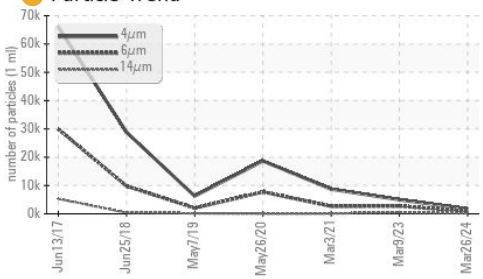
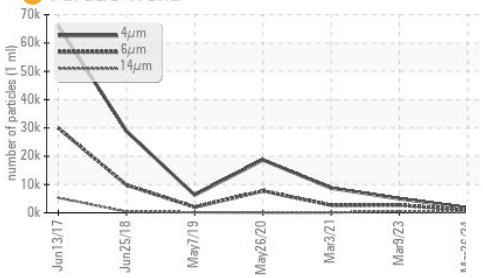
Water (KF)



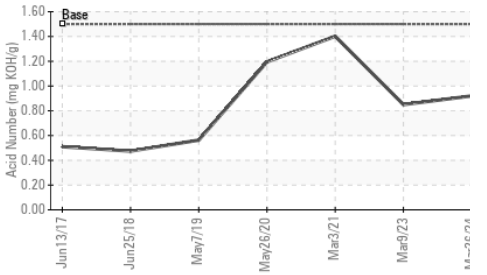
Particle Trend



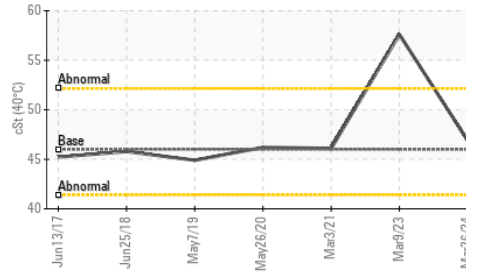
Particle Trend



Acid Number



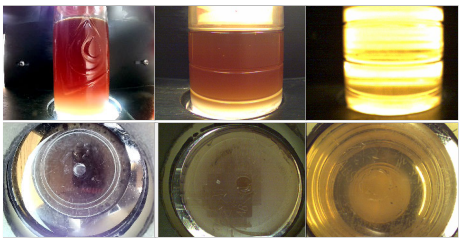
Viscosity @ 40°C



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	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	**NONE**	VLITE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	HAZY	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**0.2%**	0.2%	NEG
Free Water	scalar	*Visual		**NEG**	2.0	NEG

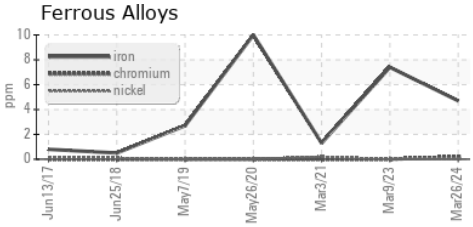
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**46.9**	57.6	46.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

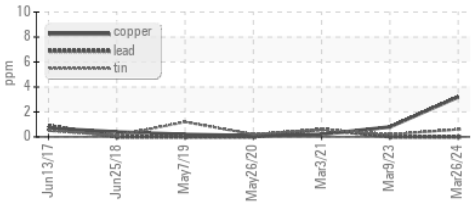


GRAPHS

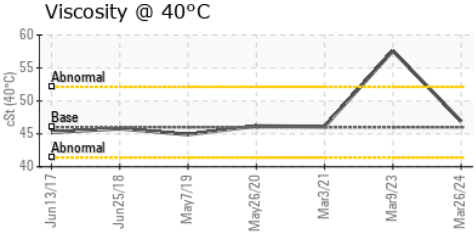
Ferrous Alloys



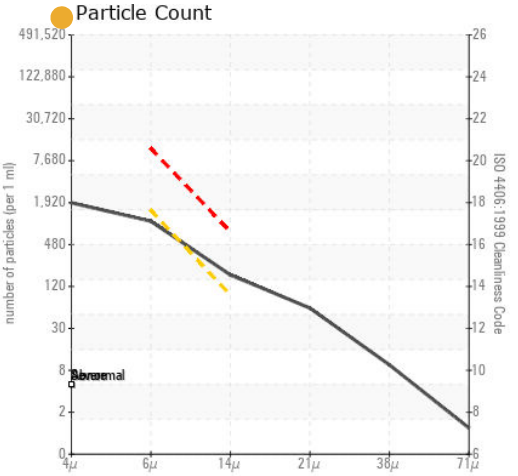
Non-ferrous Metals



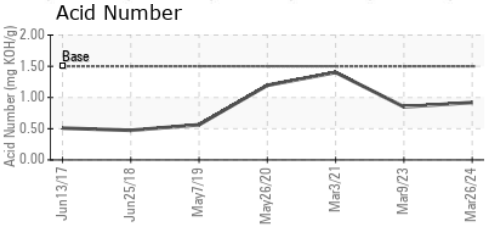
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA015966
Lab Number : 06136414
Unique Number : 10955879
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 02 Apr 2024
Tested : 09 Apr 2024
Diagnosed : 09 Apr 2024 - Jonathan Hester

GRACON CONSTRUCTION
400 POWER PLANT RD
GRAHAM, TX
US 76450
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: