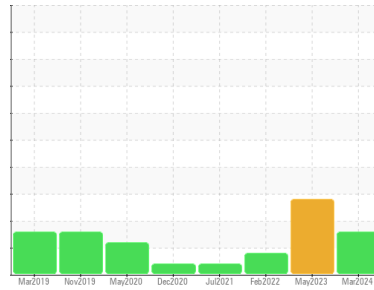




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
KAESER SM15 6508510 (S/N 1058)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 There is a high amount of particulates 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		KCPA016887	KCPA001722	KC97143
Sample Date	Client Info		27 Mar 2024	08 May 2023	14 Feb 2022
Machine Age	hrs	Client Info	15296	12980	9885
Oil Age	hrs	Client Info	2316	0	3000
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			ABNORMAL	ABNORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<1	<1	<1
Chromium	ppm	ASTM D5185m >10	<1	0	0
Nickel	ppm	ASTM D5185m >3	<1	0	0
Titanium	ppm	ASTM D5185m >3	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	2	0	<1
Lead	ppm	ASTM D5185m >10	<1	0	0
Copper	ppm	ASTM D5185m >50	2	9	7
Tin	ppm	ASTM D5185m >10	1	0	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	<1
Barium	ppm	ASTM D5185m 90	84	40	0
Molybdenum	ppm	ASTM D5185m 0	<1	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m 100	84	46	36
Calcium	ppm	ASTM D5185m 0	6	5	0
Phosphorus	ppm	ASTM D5185m 0	0	3	6
Zinc	ppm	ASTM D5185m 0	0	11	10
Sulfur	ppm	ASTM D5185m 23500	24048	18945	16069

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	<1	<1
Sodium	ppm	ASTM D5185m	2	1	18
Potassium	ppm	ASTM D5185m >20	2	1	0
Water	%	ASTM D6304 >0.05	0.035	▲ 0.297	0.011
ppm Water	ppm	ASTM D6304 >500	356	▲ 2970	116.3

FLUID CLEANLINESS

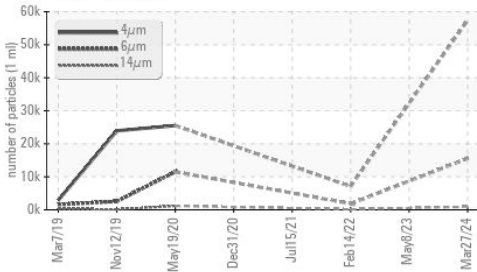
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		57361	---	7091
Particles >6µm	ASTM D7647	>1300	▲ 15568	---	● 1842
Particles >14µm	ASTM D7647	>80	▲ 915	---	● 136
Particles >21µm	ASTM D7647	>20	▲ 185	---	19
Particles >38µm	ASTM D7647	>4	4	---	2
Particles >71µm	ASTM D7647	>3	1	---	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 23/21/17	---	● 18/14

FLUID DEGRADATION

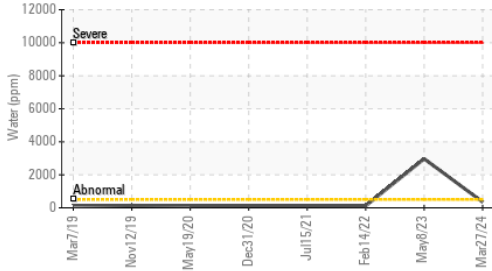
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.42	0.41	0.37

OIL ANALYSIS REPORT

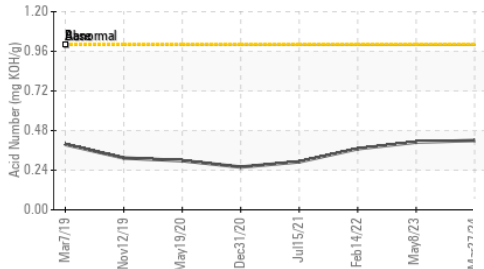
▲ Particle Trend



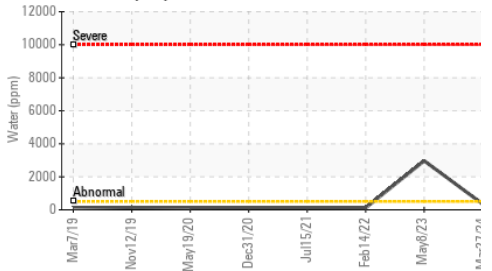
Water (KF)



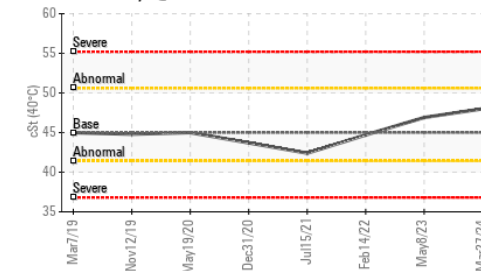
Acid Number



Water (KF)



Viscosity @ 40°C

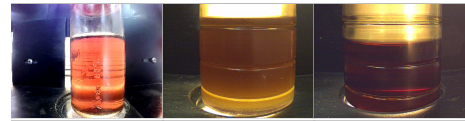


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

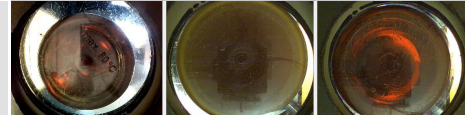
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	48.0	46.9	44.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

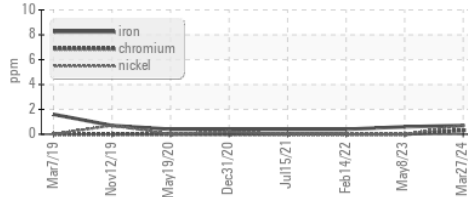


Bottom

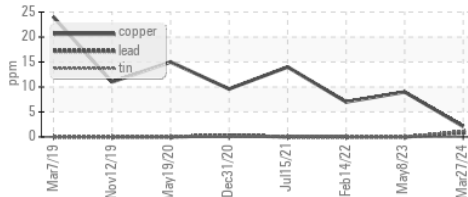


GRAPHS

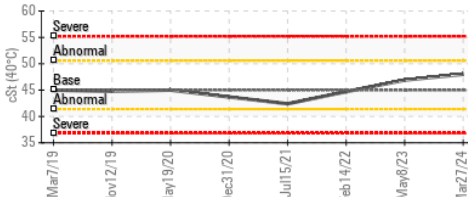
Ferrous Alloys



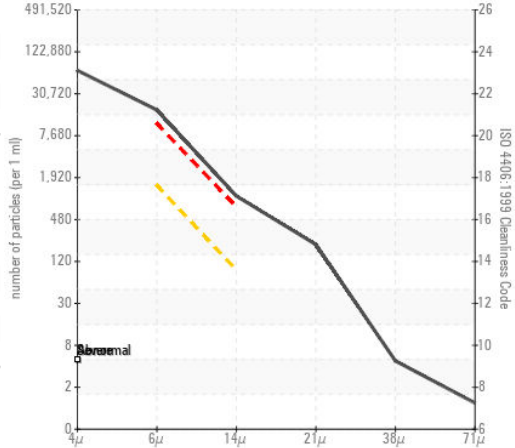
Non-ferrous Metals



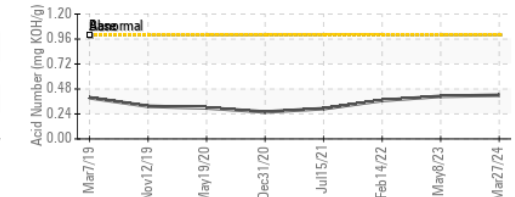
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KCPA016887

Lab Number : 06135660

Unique Number : 10955125

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)

Received : 01 Apr 2024

Tested : 03 Apr 2024

Diagnosed : 04 Apr 2024 - Don Baldrige

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T:

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