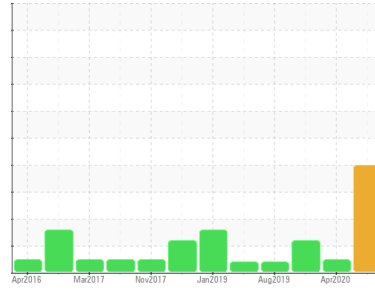


OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
KAESER CSD 100ST 4691429 (S/N 1031)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

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

Contamination

There is a moderate amount of particulates present in the oil.

Fluid Condition

The AN level is above the recommended limit. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KC129825	KC65391	KC84857
Sample Date	Client Info			08 Apr 2024	27 Apr 2020	08 Oct 2019
Machine Age	hrs	Client Info		53540	35474	33397
Oil Age	hrs	Client Info		207	2937	860
Oil Changed	Client Info			Not Chngd	Not Chngd	Not Chngd
Sample Status				ABNORMAL	NORMAL	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	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	▲ 29	<1	1
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	1	1	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Antimony	ppm	ASTM D5185m		---	0	<1
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
Barium	ppm	ASTM D5185m	90	<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	90	2	<1	0
Calcium	ppm	ASTM D5185m	2	0	0	0
Phosphorus	ppm	ASTM D5185m		● 544	19	61
Zinc	ppm	ASTM D5185m		● 140	15	14

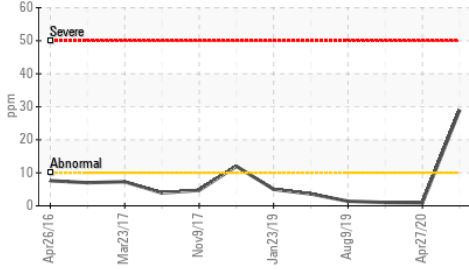
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	0	0
Sodium	ppm	ASTM D5185m		3	0	0
Potassium	ppm	ASTM D5185m	>20	4	5	<1
Water	%	ASTM D6304	>0.05	0.008	0.001	0.001
ppm Water	ppm	ASTM D6304	>500	80	0.00	15.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		5254	3550	5491
Particles >6µm		ASTM D7647	>1300	1287	858	● 1439
Particles >14µm		ASTM D7647	>80	● 87	54	● 113
Particles >21µm		ASTM D7647	>20	24	20	● 28
Particles >38µm		ASTM D7647	>4	1	8	3
Particles >71µm		ASTM D7647	>3	0	6	2
Oil Cleanliness		ISO 4406 (c)	>--/17/13	● 20/17/14	17/13	● 18/14

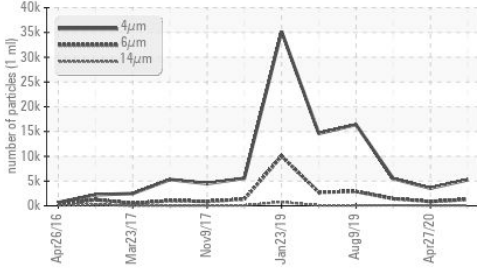
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	● 1.58	0.105	0.150

OIL ANALYSIS REPORT

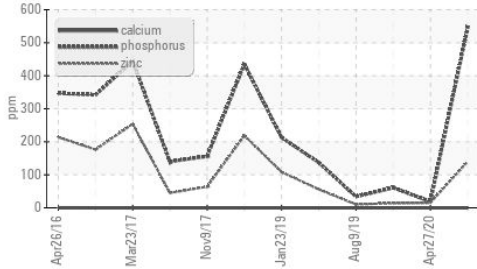
Aluminum (ppm)



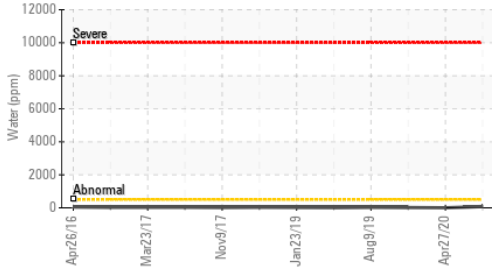
Particle Trend



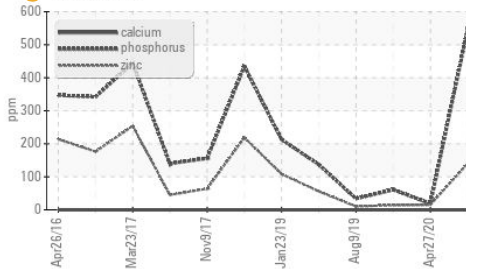
Additives



Water (KF)



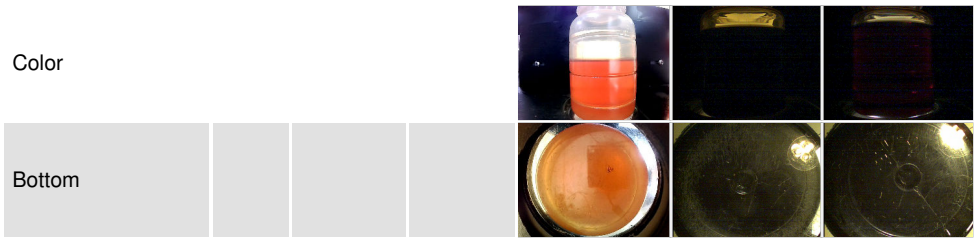
Additives



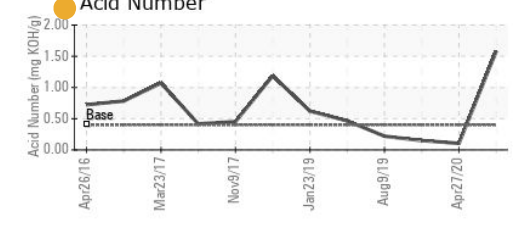
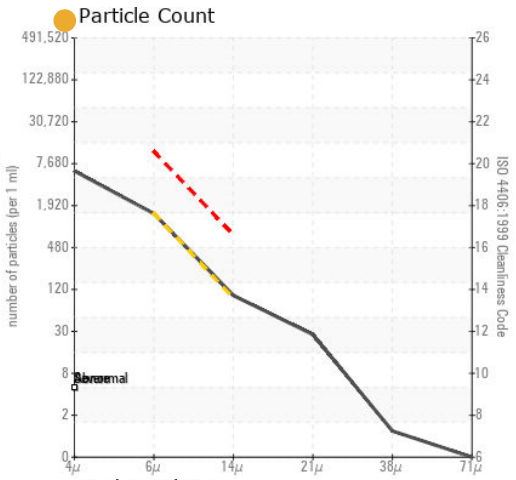
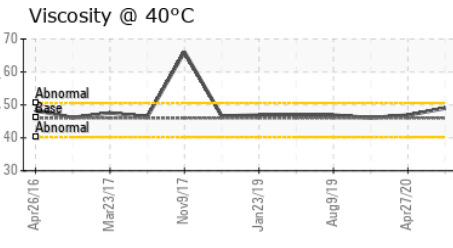
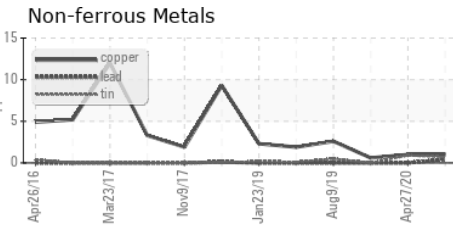
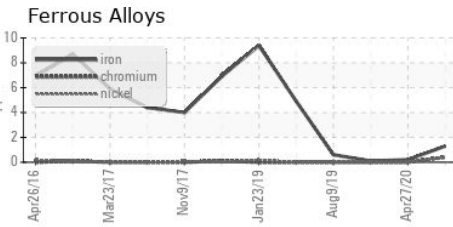
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	49.0	46.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC129825
Lab Number : 06156925
Unique Number : 10992348
Test Package : IND 2
Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 24 Apr 2024 - Angela Borella

SCHUTZ CONTAINERS
 200 ASPEN HILL RD
 NORTH BRANCH, NJ
 US 08876
 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: