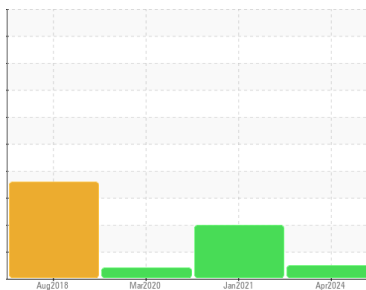




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
KAESER SM 15T 6155593 (S/N 1218)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-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 no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

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			KCPA015317	KCP27813	KCP18228
Sample Date	Client Info			24 Apr 2024	19 Jan 2021	13 Mar 2020
Machine Age	hrs	Client Info		11702	10279	9638
Oil Age	hrs	Client Info		0	698	2468
Oil Changed	Client Info			Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	1	<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	<1
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>50	4	5	4
Tin	ppm	ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m		---	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

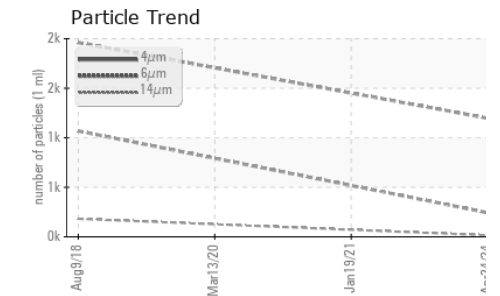
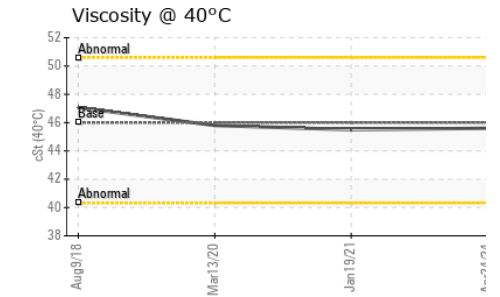
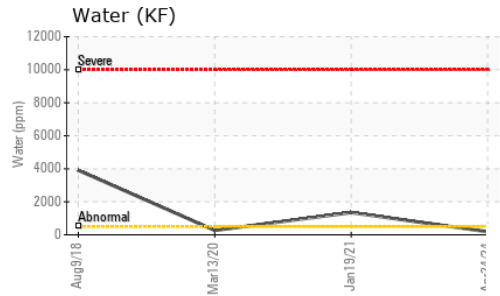
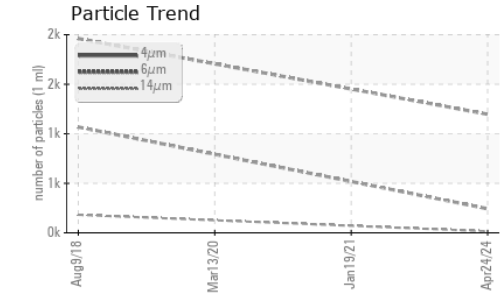
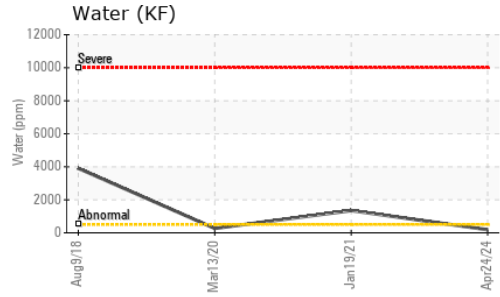
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1	31
Barium	ppm	ASTM D5185m	90	1	2	23
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	90	49	42	61
Calcium	ppm	ASTM D5185m	2	0	1	2
Phosphorus	ppm	ASTM D5185m		0	6	<1
Zinc	ppm	ASTM D5185m		15	2	7
Sulfur	ppm	ASTM D5185m		22630	17224	15757

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	<1
Sodium	ppm	ASTM D5185m		16	0	23
Potassium	ppm	ASTM D5185m	>20	<1	2	2
Water	%	ASTM D6304	>0.05	0.018	▲ 0.135	0.026
ppm Water	ppm	ASTM D6304	>500	187	▲ 1350	267.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1197	---	---
Particles >6µm		ASTM D7647	>1300	243	---	---
Particles >14µm		ASTM D7647	>80	15	---	---
Particles >21µm		ASTM D7647	>20	5	---	---
Particles >38µm		ASTM D7647	>4	1	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	17/15/11	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.34	0.324	0.379

OIL ANALYSIS REPORT



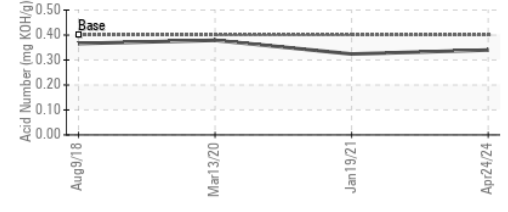
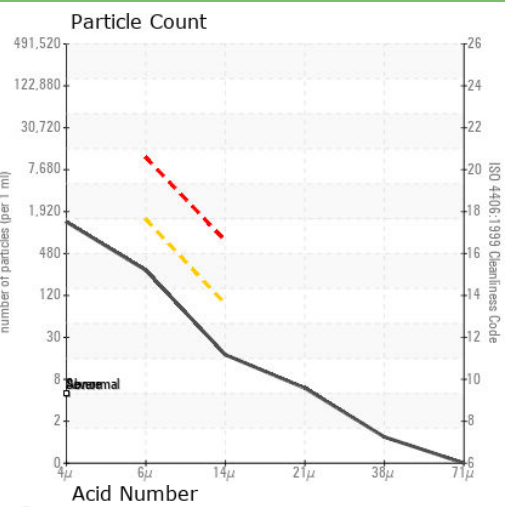
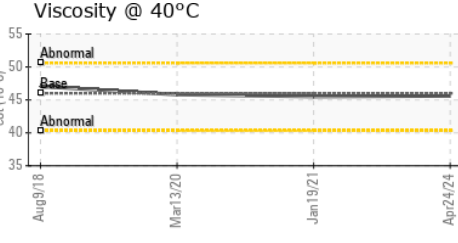
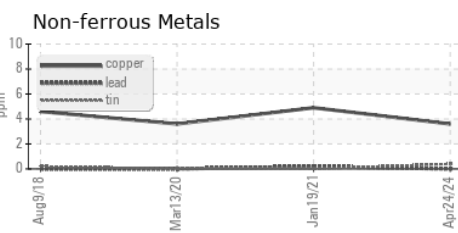
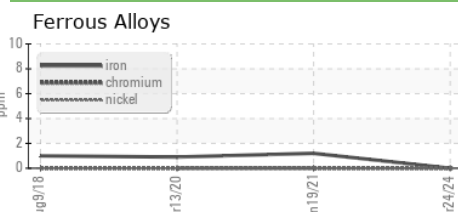
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	45.6	45.5	45.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA015317 **Received** : 10 May 2024
Lab Number : 06176133 **Tested** : 14 May 2024
Unique Number : 11022186 **Diagnosed** : 14 May 2024 - Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

BOSTON BOATWORKS
 333 TERMINAL ST
 CHARLESTOWN, MA
 US 02129
 Contact: Service Manager
 skrivelon@bostonboatworks.com

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)