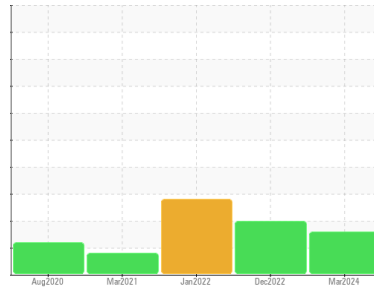


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
7352685 (S/N 1114)

Component
Compressor

Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. 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			KC130157	KC103587	KC73030
Sample Date	Client Info			14 Mar 2024	28 Dec 2022	13 Jan 2022
Machine Age	hrs	Client Info		12919	11791	6379
Oil Age	hrs	Client Info		0	5400	4360
Oil Changed	Client Info			Not Chngd	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	24	3	8
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	0
Aluminum	ppm	ASTM D5185m	>10	6	3	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	10	17	24
Tin	ppm	ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m		---	---	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

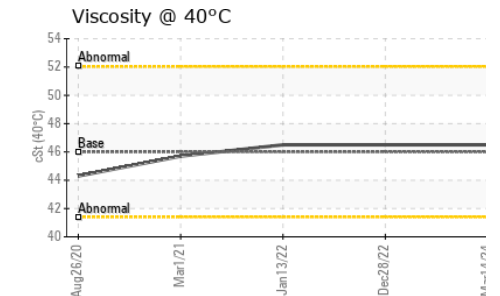
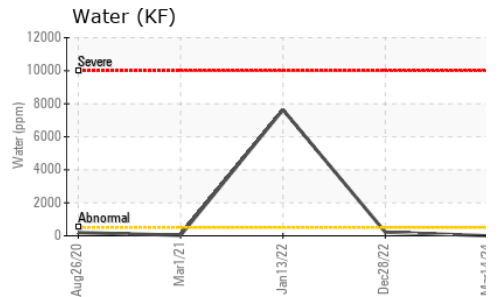
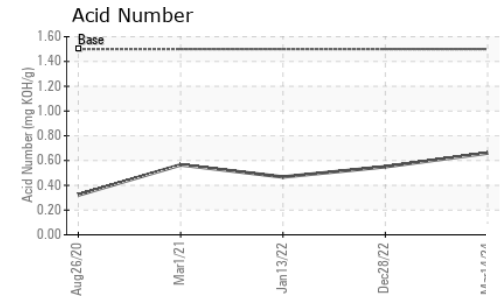
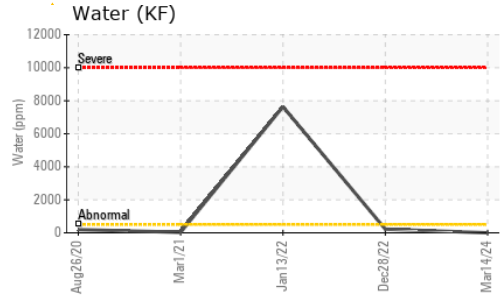
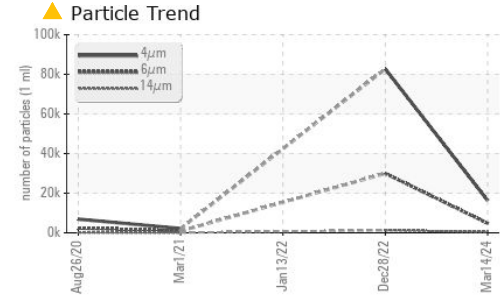
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		0	0	4
Calcium	ppm	ASTM D5185m		0	0	2
Phosphorus	ppm	ASTM D5185m	500	277	196	325
Zinc	ppm	ASTM D5185m		243	255	443

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	2	<1
Sodium	ppm	ASTM D5185m		0	0	18
Potassium	ppm	ASTM D5185m	>20	0	1	8
Water	%	ASTM D6304	>0.05	0.00	0.022	▲ 0.764
ppm Water	ppm	ASTM D6304	>500	0	223.0	▲ 7640

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		16341	82710	---
Particles >6µm		ASTM D7647	>1300	▲ 4807	▲ 29985	---
Particles >14µm		ASTM D7647	>80	▲ 379	▲ 1249	---
Particles >21µm		ASTM D7647	>20	▲ 108	▲ 425	---
Particles >38µm		ASTM D7647	>4	3	▲ 61	---
Particles >71µm		ASTM D7647	>3	0	2	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 21/19/16	▲ 24/22/17	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	0.66	0.55	0.467

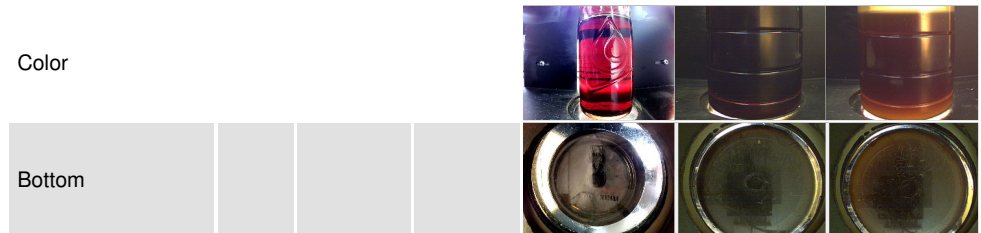
OIL ANALYSIS REPORT



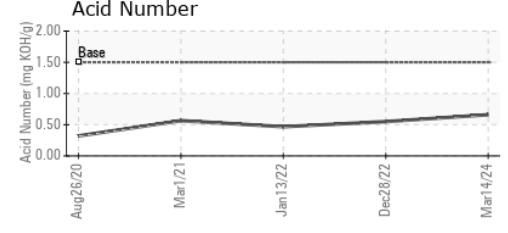
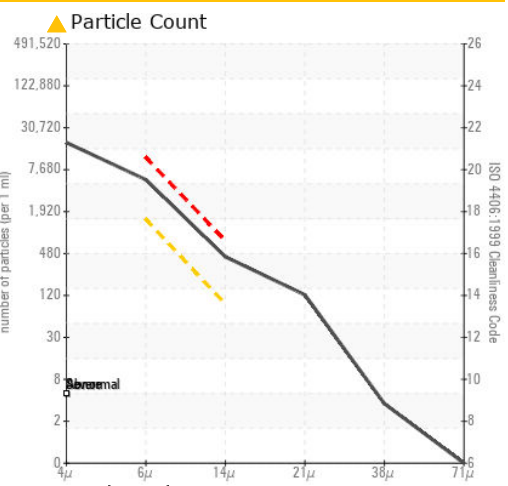
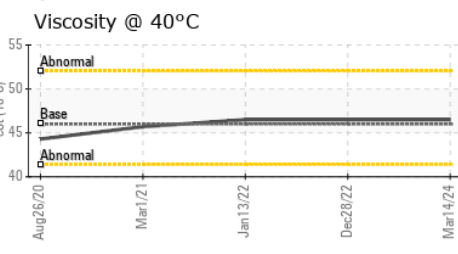
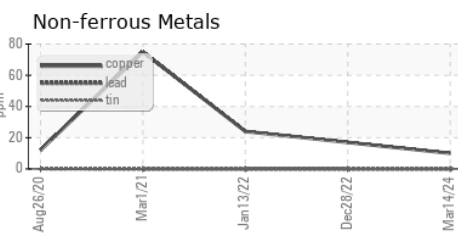
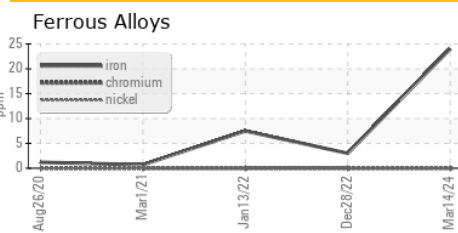
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	46.5	46.5	46.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC130157
Lab Number : 06122381
Unique Number : 10936532
Test Package : IND 2
Received : 19 Mar 2024
Tested : 20 Mar 2024
Diagnosed : 21 Mar 2024 - Jonathan Hester

PIERRES ICE CREAM
 6200 EUCLID AVE
 CLEVELAND, OH
 US 44103
 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)