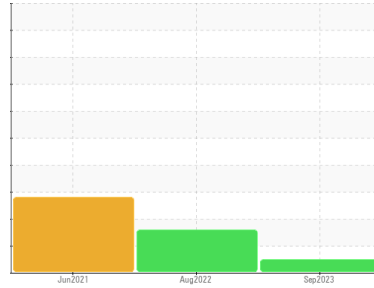




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
7184376 (S/N 1238)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
 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			KCPA002899	KCP48228	KCP42241
Sample Date	Client Info			27 Sep 2023	16 Aug 2022	22 Jun 2021
Machine Age	hrs	Client Info		8013	4755	1244
Oil Age	hrs	Client Info		0	4755	1244
Oil Changed	Client Info			N/A	Changed	N/A
Sample Status				NORMAL	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	<1	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	1
Aluminum	ppm	ASTM D5185m	>10	1	<1	0
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>50	4	4	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1

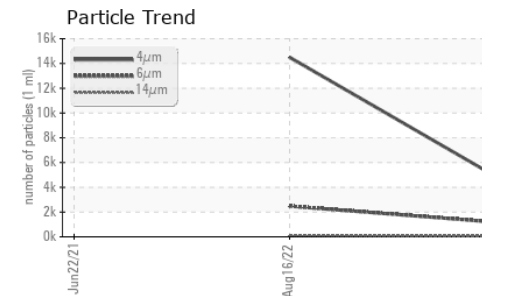
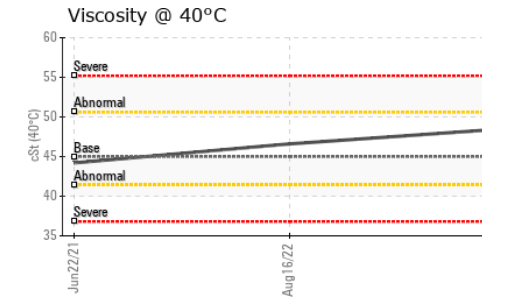
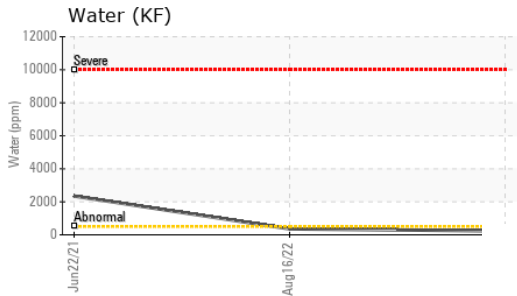
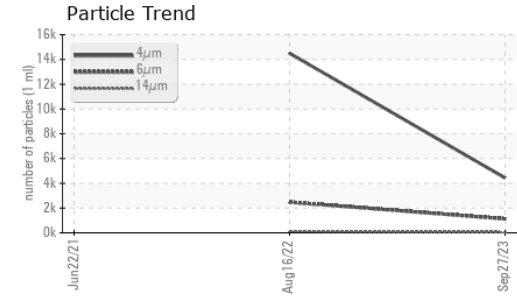
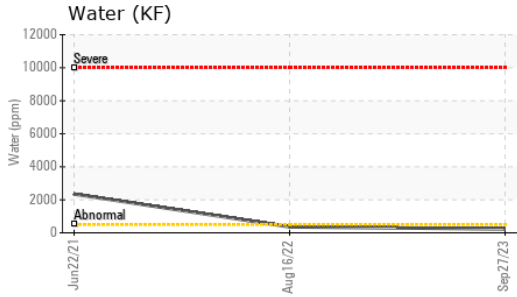
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	1
Barium	ppm	ASTM D5185m	90	14	20	64
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	100	53	62	62
Calcium	ppm	ASTM D5185m	0	<1	2	<1
Phosphorus	ppm	ASTM D5185m	0	2	2	4
Zinc	ppm	ASTM D5185m	0	7	2	0
Sulfur	ppm	ASTM D5185m	23500	23392	22627	15539

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	<1
Sodium	ppm	ASTM D5185m		9	11	4
Potassium	ppm	ASTM D5185m	>20	4	7	4
Water	%	ASTM D6304	>0.05	0.023	0.036	▲ 0.235
ppm Water	ppm	ASTM D6304	>500	232.5	361.1	▲ 2350

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		4434	14500	---
Particles >6µm		ASTM D7647	>1300	1127	▲ 2479	---
Particles >14µm		ASTM D7647	>80	45	▲ 134	---
Particles >21µm		ASTM D7647	>20	9	▲ 35	---
Particles >38µm		ASTM D7647	>4	0	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	19/17/13	▲ 21/18/14	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.35	0.36	0.417

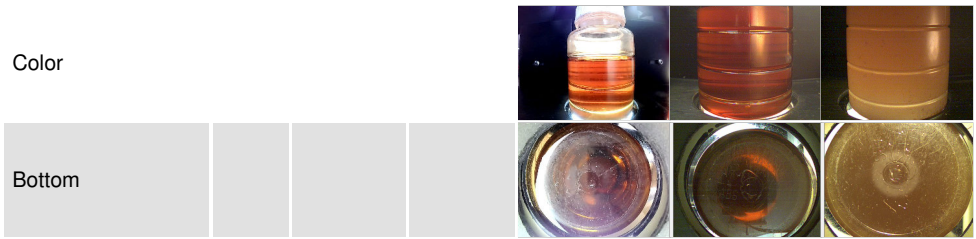
OIL ANALYSIS REPORT



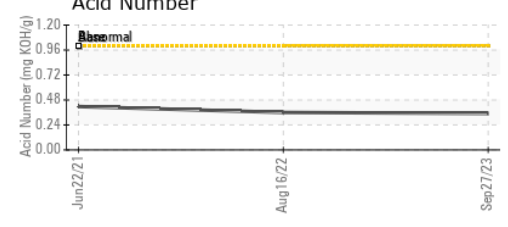
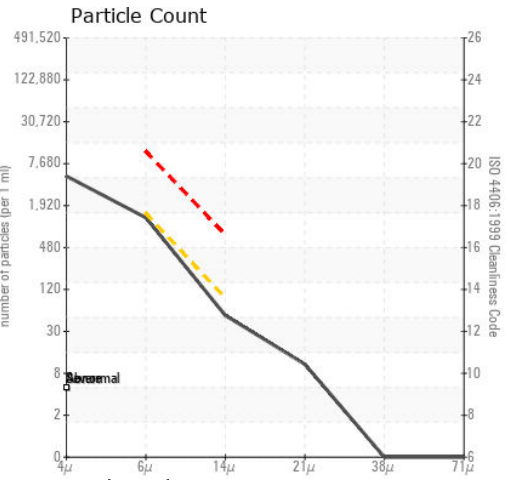
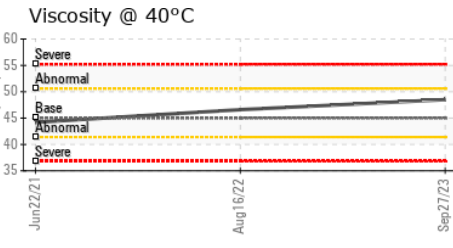
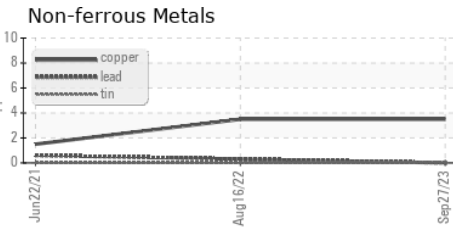
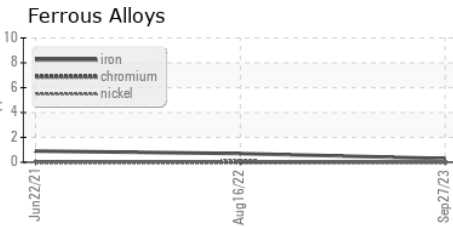
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 45	48.5	46.6	44.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA002899 **Received** : 02 Oct 2023
Lab Number : 05967050 **Diagnosed** : 04 Oct 2023
Unique Number : 10673601 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

HERMLE USA
 5100 W FRANKLIN DR
 FRANKLIN, WI
 US 53132
 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: