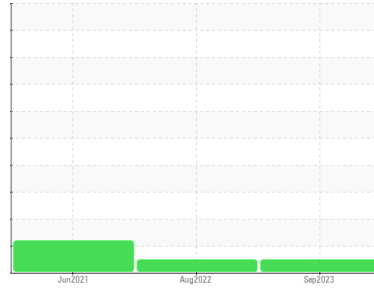




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
7170623 (S/N 1237)

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

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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			KCPA002890	KCP48229	KCP42237
Sample Date	Client Info			28 Sep 2023	16 Aug 2022	22 Jun 2021
Machine Age	hrs	Client Info		2162	4408	1241
Oil Age	hrs	Client Info		0	4408	1241
Oil Changed	Client Info			N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	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	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>50	2	3	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	0

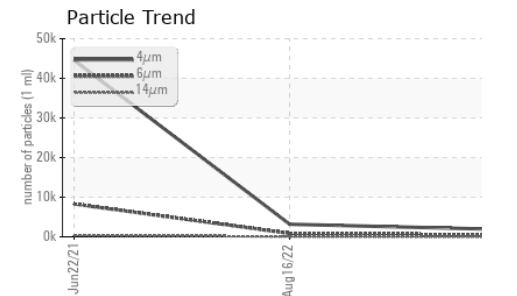
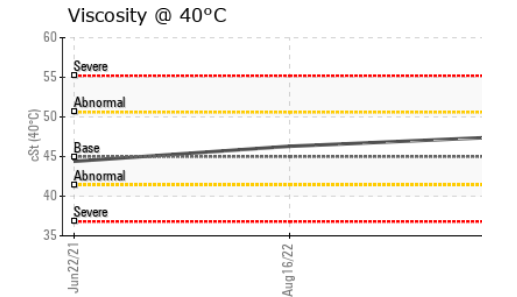
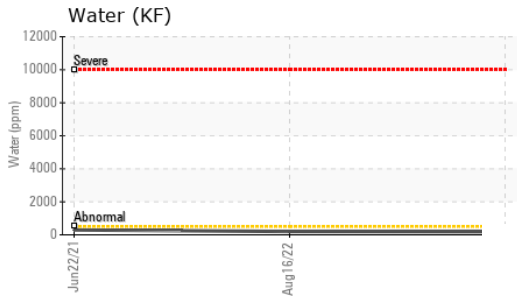
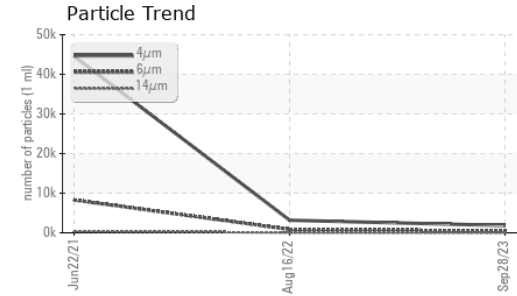
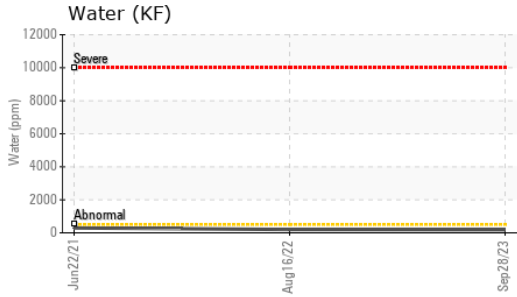
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	90	22	13	48
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	100	60	63	82
Calcium	ppm	ASTM D5185m	0	<1	1	2
Phosphorus	ppm	ASTM D5185m	0	2	1	4
Zinc	ppm	ASTM D5185m	0	4	4	0
Sulfur	ppm	ASTM D5185m	23500	22017	22082	16208

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	0
Sodium	ppm	ASTM D5185m		10	10	12
Potassium	ppm	ASTM D5185m	>20	4	3	6
Water	%	ASTM D6304	>0.05	0.018	0.020	0.029
ppm Water	ppm	ASTM D6304	>500	185.0	201.1	295.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1840	3178	44559
Particles >6µm		ASTM D7647	>1300	414	857	▲ 8279
Particles >14µm		ASTM D7647	>80	18	57	▲ 361
Particles >21µm		ASTM D7647	>20	5	15	▲ 110
Particles >38µm		ASTM D7647	>4	1	1	5
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	18/16/11	19/17/13	▲ 20/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.36	0.36	0.414

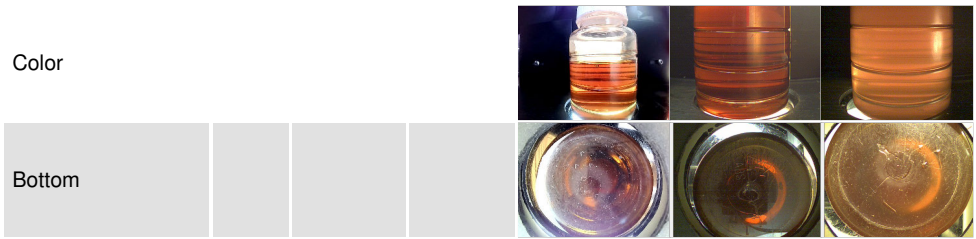
OIL ANALYSIS REPORT



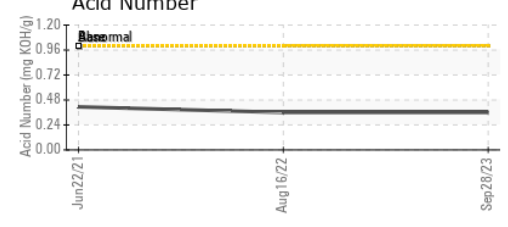
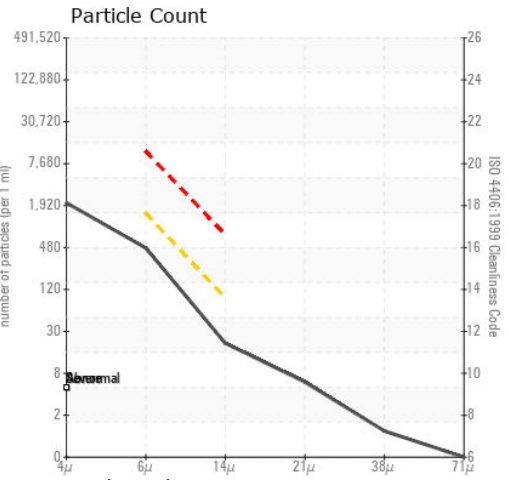
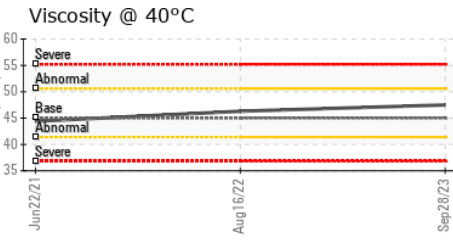
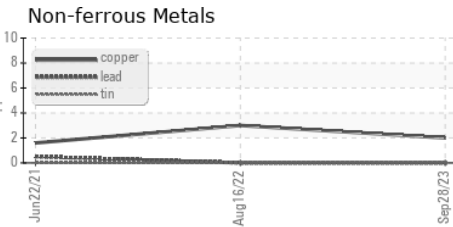
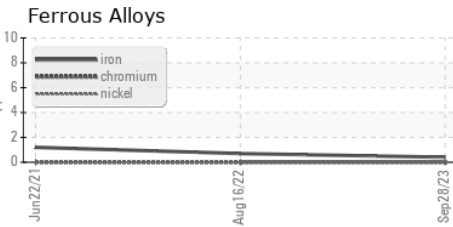
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45	47.5	46.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA002890 **Received** : 02 Oct 2023
Lab Number : 05967093 **Diagnosed** : 04 Oct 2023
Unique Number : 10673644 **Diagnostician** : Don Baldridge
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: