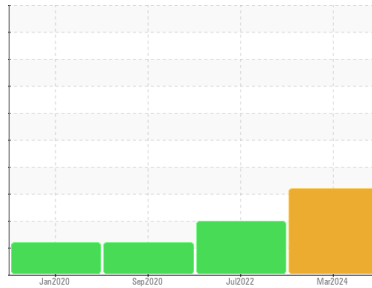




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**KAESER AIRTOWER 5C 6879044 (S/N 2002)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil. There is a trace of moisture present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA015010</b>	KCP49498	KCP29734
Sample Date	Client Info			<b>25 Mar 2024</b>	28 Jul 2022	28 Sep 2020
Machine Age	hrs	Client Info		<b>3609</b>	2207	855
Oil Age	hrs	Client Info		<b>0</b>	2207	442
Oil Changed	Client Info			<b>Changed</b>	Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	14	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	3	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	2	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>20</b>	13	4
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

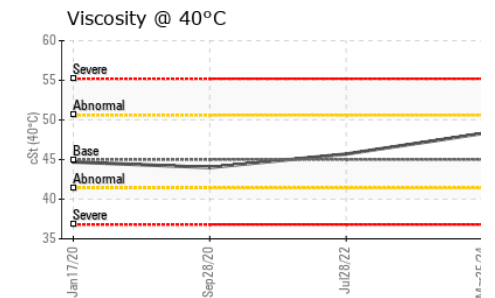
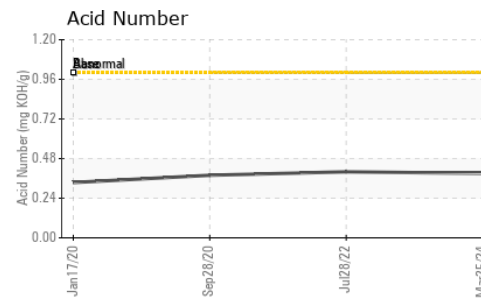
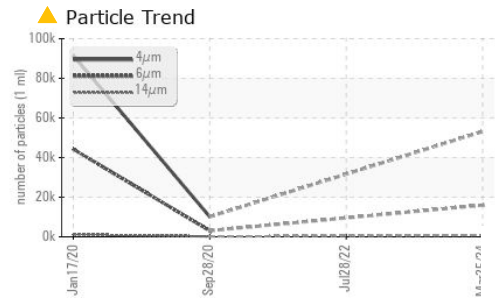
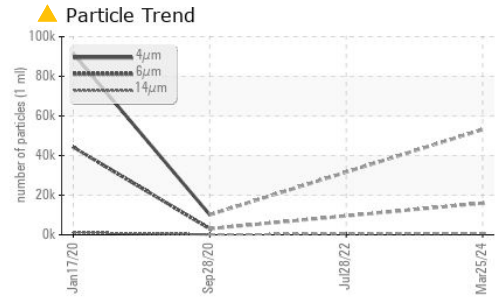
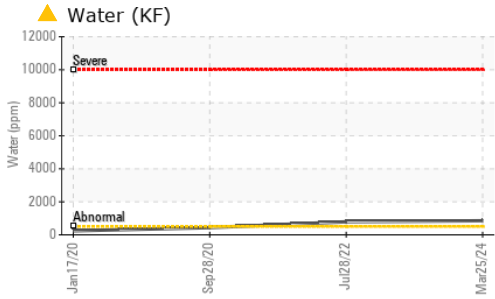
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	1	<1
Magnesium	ppm	ASTM D5185m	100	<b>0</b>	31	50
Calcium	ppm	ASTM D5185m	0	<b>0</b>	2	0
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	8	8
Zinc	ppm	ASTM D5185m	0	<b>2</b>	60	<1
Sulfur	ppm	ASTM D5185m	23500	<b>19439</b>	17363	16019

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>0</b>	4	2
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	29	13
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	6	1
Water	%	ASTM D6304	>0.05	<b>▲ 0.085</b>	▲ 0.078	0.043
ppm Water	ppm	ASTM D6304	>500	<b>▲ 852</b>	▲ 788.6	438.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>53175</b>	---	10136
Particles >6µm		ASTM D7647	>1300	<b>▲ 16014</b>	---	▲ 3083
Particles >14µm		ASTM D7647	>80	<b>▲ 784</b>	---	● 159
Particles >21µm		ASTM D7647	>20	<b>▲ 156</b>	---	● 35
Particles >38µm		ASTM D7647	>4	<b>1</b>	---	4
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>▲ 23/21/17</b>	---	▲ 19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.39</b>	0.40	0.379

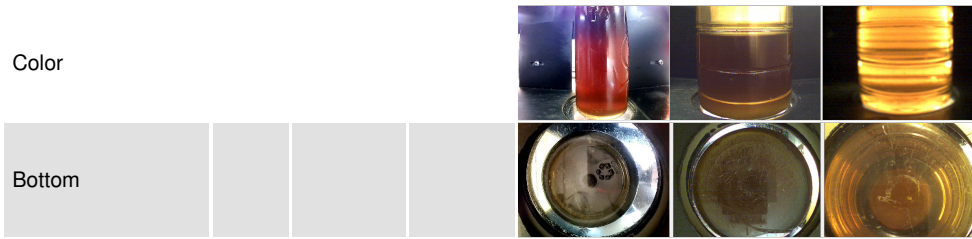
# OIL ANALYSIS REPORT



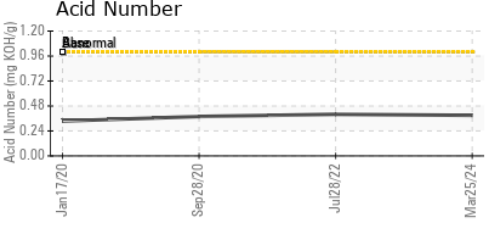
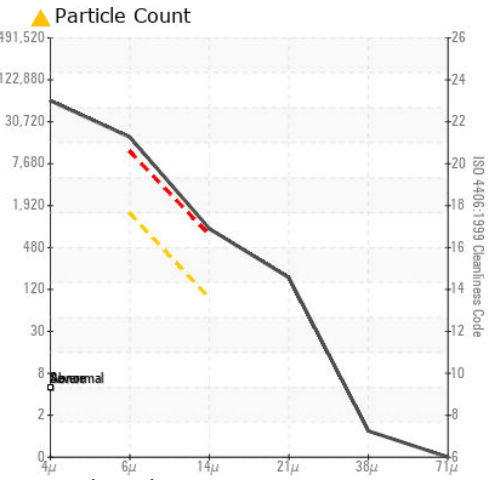
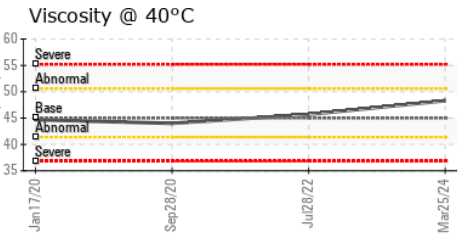
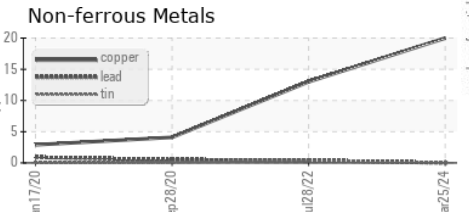
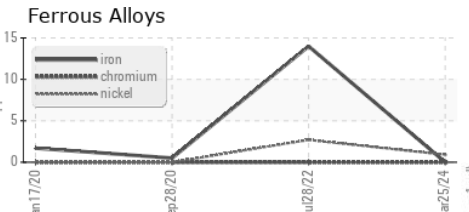
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	48.3	45.7	44.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA015010 **Received** : 28 Mar 2024  
**Lab Number** : 06132745 **Tested** : 01 Apr 2024  
**Unique Number** : 10952210 **Diagnosed** : 02 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**OLD DOMINION FREIGHT LINE**  
 211 RIVES POINT RD  
 EMERSON, GA  
 US 30120  
 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: