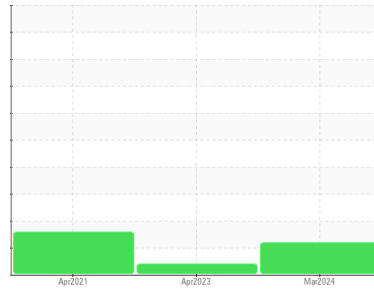




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id

**KAESER 4306461**

Component

**Compressor**

Fluid

**KAESER SIGMA (OEM) M-460 (--- GAL)**

### DIAGNOSIS

#### Recommendation

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 a moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA015575</b>	KCPA000479	KCP32003
Sample Date	Client Info			<b>04 Mar 2024</b>	06 Apr 2023	12 Apr 2021
Machine Age	hrs	Client Info		<b>33887</b>	0	24232
Oil Age	hrs	Client Info		<b>0</b>	0	2000
Oil Changed	Client Info			<b>Changed</b>	N/A	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	0	0
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>9</b>	5	3
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

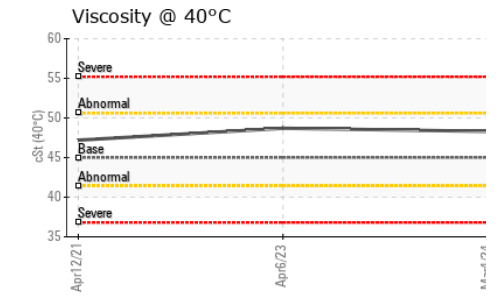
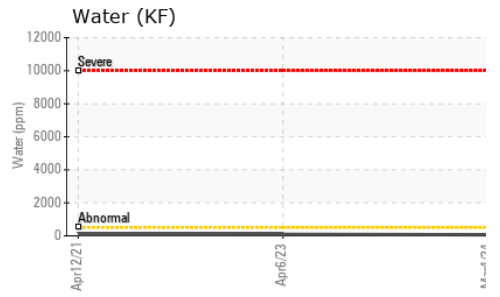
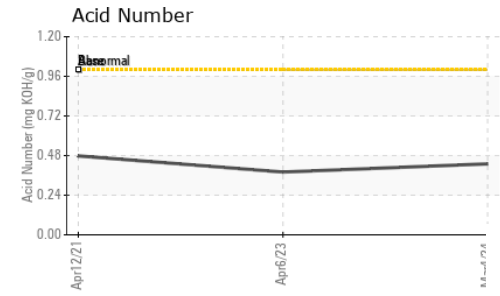
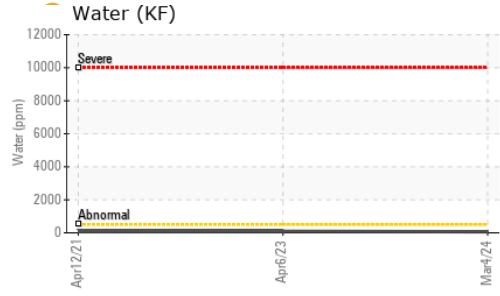
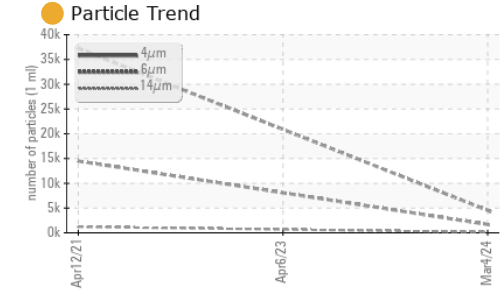
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	4
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	100	<b>&lt;1</b>	3	0
Calcium	ppm	ASTM D5185m	0	<b>3</b>	<1	0
Phosphorus	ppm	ASTM D5185m	0	<b>2</b>	4	7
Zinc	ppm	ASTM D5185m	0	<b>4</b>	1	0
Sulfur	ppm	ASTM D5185m	23500	<b>18427</b>	17492	8471

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	0
Sodium	ppm	ASTM D5185m		<b>0</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304	>0.05	<b>0.006</b>	0.009	0.008
ppm Water	ppm	ASTM D6304	>500	<b>64</b>	92.5	87.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>4526</b>	---	37234
Particles >6µm		ASTM D7647	>1300	<b>1685</b>	---	▲ 14487
Particles >14µm		ASTM D7647	>80	<b>133</b>	---	▲ 1210
Particles >21µm		ASTM D7647	>20	<b>26</b>	---	▲ 375
Particles >38µm		ASTM D7647	>4	<b>0</b>	---	▲ 22
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	▲ 1
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>19/18/14</b>	---	▲ 21/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.43</b>	0.38	0.478

# OIL ANALYSIS REPORT

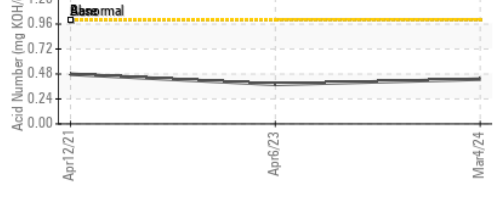
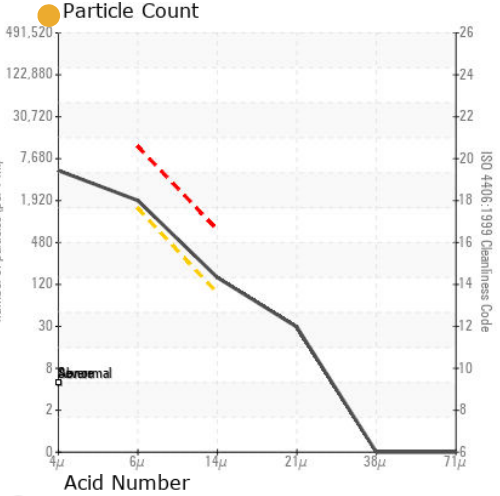
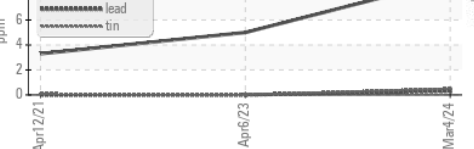
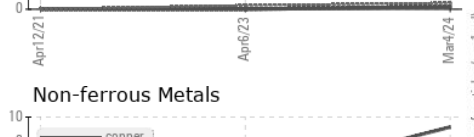


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	48.7	47.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA015575 **Received** : 23 Apr 2024  
**Lab Number** : 06158463 **Tested** : 25 Apr 2024  
**Unique Number** : 10993886 **Diagnosed** : 25 Apr 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Haidlen Ford**  
 1355 E F ST  
 OAKDALE, CA  
 US 95361  
 Contact: S. BOYER  
 sboyer@haidlenford.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)