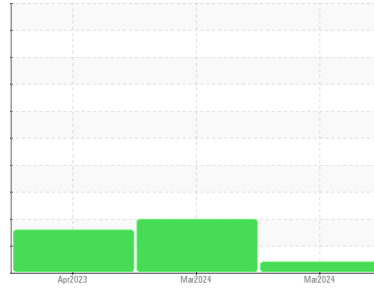




# OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id  
**7451842 (S/N 1604)**

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

## DIAGNOSIS

### Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### Wear

All component wear rates are normal.

### Contamination

There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris 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>KCPA014970</b>	KCPA014972	KCP53076
Sample Date	Client Info		<b>13 Mar 2024</b>	13 Mar 2024	25 Apr 2023
Machine Age	hrs	Client Info	<b>15087</b>	33280	12134
Oil Age	hrs	Client Info	<b>0</b>	0	3000
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>&lt;1</b>	1	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>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>20</b>	13	17
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	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	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 90	<b>&lt;1</b>	2	<1
Calcium	ppm	ASTM D5185m 2	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	0	<1
Zinc	ppm	ASTM D5185m	<b>0</b>	3	0
Sulfur	ppm	ASTM D5185m	<b>20433</b>	20530	16487

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	<1	6
Sodium	ppm	ASTM D5185m	<b>1</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	<1
Water	%	ASTM D6304 >0.05	<b>0.007</b>	▲ 0.215	0.006
ppm Water	ppm	ASTM D6304 >500	<b>76</b>	▲ 2150	62.7

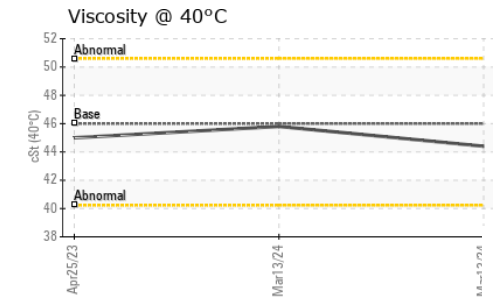
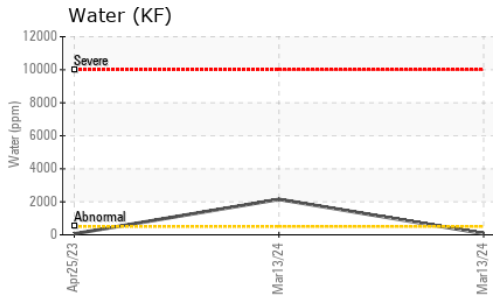
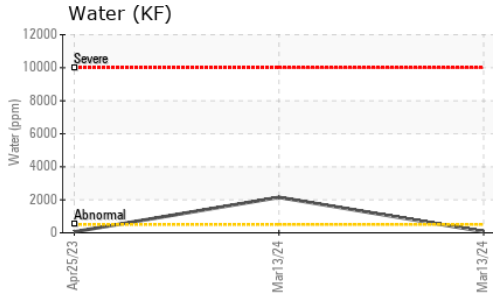
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		---	---	8562
Particles >6µm	ASTM D7647	>1300	---	---	▲ 2707
Particles >14µm	ASTM D7647	>80	---	---	▲ 267
Particles >21µm	ASTM D7647	>20	---	---	▲ 61
Particles >38µm	ASTM D7647	>4	---	---	4
Particles >71µm	ASTM D7647	>3	---	---	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	---	---	▲ 20/19/15

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.41</b>	0.46	0.36

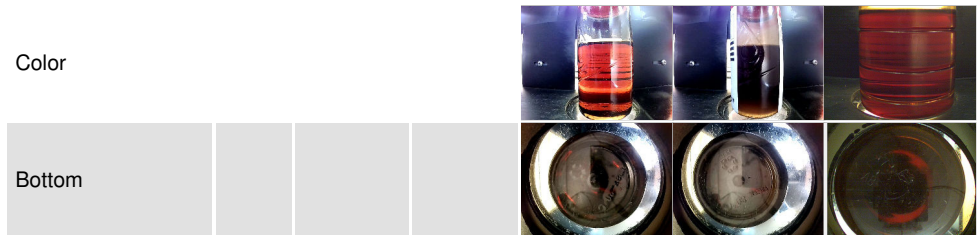
# OIL ANALYSIS REPORT



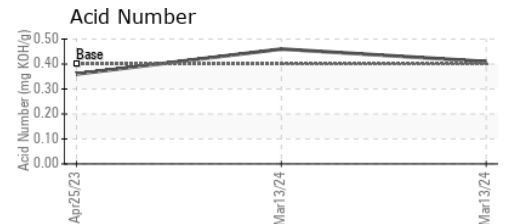
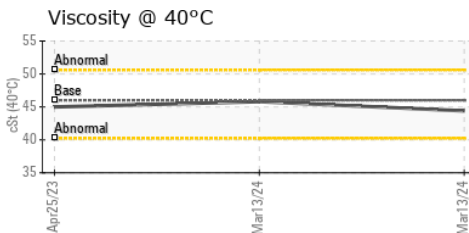
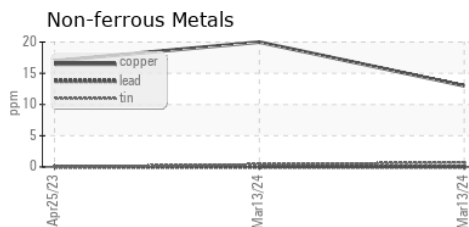
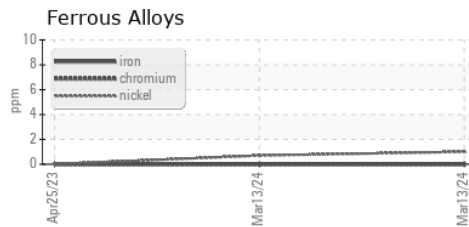
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ HEAVY
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	44.4	45.8	45.0

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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA014970 **Received** : 28 Mar 2024  
**Lab Number** : 06132031 **Tested** : 02 Apr 2024  
**Unique Number** : 10951496 **Diagnosed** : 02 Apr 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**METRI-TECH ENGINEERING INC**  
 5411 OCEANUS DR  
 HUNTINGTON BEACH, CA  
 US 92649  
 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: