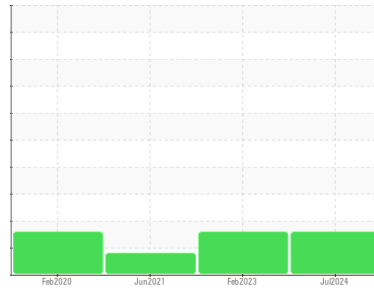




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**KAESER SM 10 6276062 (S/N 1124)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of particulates present 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			<b>KCPA020860</b>	KCP54613	KCP32865
Sample Date	Client Info			<b>02 Jul 2024</b>	24 Feb 2023	15 Jun 2021
Machine Age	hrs	Client Info		<b>7733</b>	6199	3591
Oil Age	hrs	Client Info		<b>1534</b>	2608	3591
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</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>&lt;1</b>	3	2
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

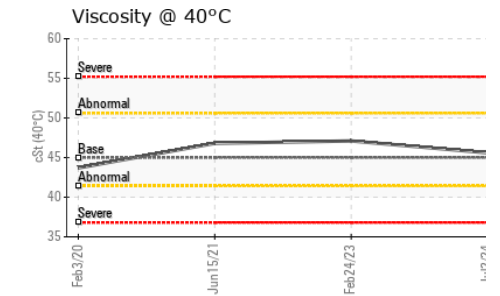
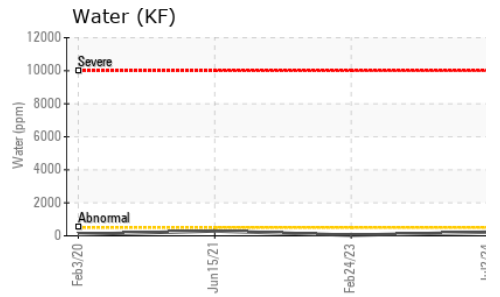
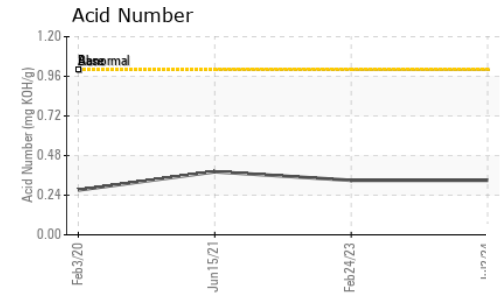
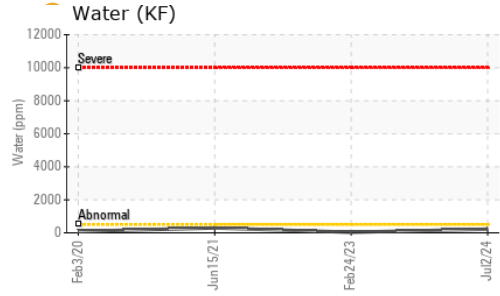
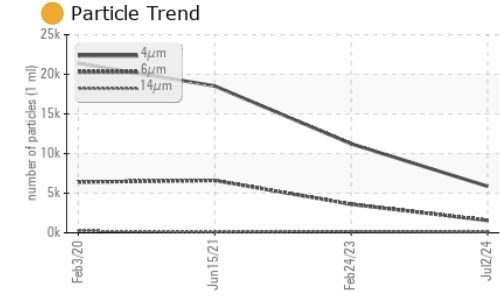
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	14
Barium	ppm	ASTM D5185m	90	<b>8</b>	9	10
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	100	<b>66</b>	53	74
Calcium	ppm	ASTM D5185m	0	<b>0</b>	<1	1
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	3	4
Zinc	ppm	ASTM D5185m	0	<b>0</b>	8	2
Sulfur	ppm	ASTM D5185m	23500	<b>22911</b>	18078	16622

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m		<b>15</b>	15	20
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	2
Water	%	ASTM D6304	>0.05	<b>0.022</b>	0.003	0.029
ppm Water	ppm	ASTM D6304	>500	<b>222</b>	34.1	294.2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>5866</b>	11227	18531
Particles >6µm		ASTM D7647	>1300	<b>1565</b>	▲ 3602	▲ 6607
Particles >14µm		ASTM D7647	>80	<b>102</b>	▲ 174	● 99
Particles >21µm		ASTM D7647	>20	<b>24</b>	▲ 39	8
Particles >38µm		ASTM D7647	>4	<b>1</b>	2	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>20/18/14</b>	▲ 21/19/15	▲ 20/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.33</b>	0.33	0.382

# OIL ANALYSIS REPORT

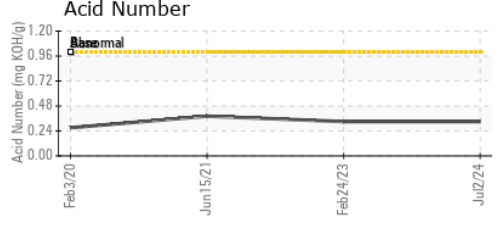
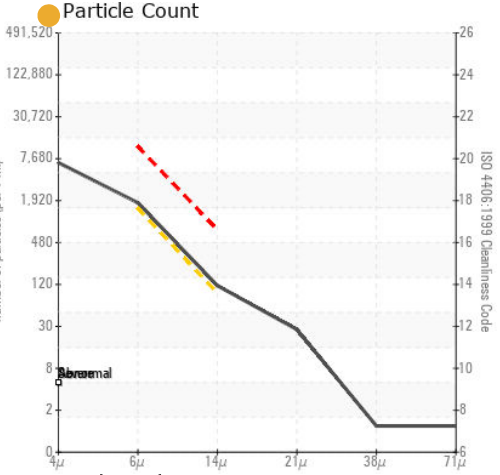
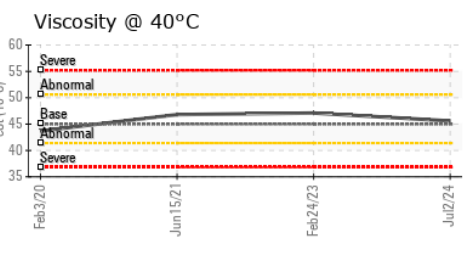
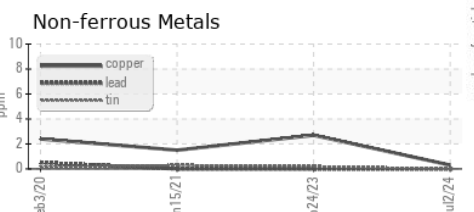
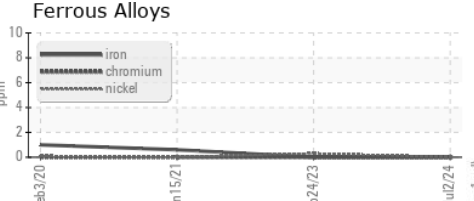


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45.6	47.1	46.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA020860 **Received** : 16 Jul 2024  
**Lab Number** : 06238389 **Tested** : 17 Jul 2024  
**Unique Number** : 11127223 **Diagnosed** : 18 Jul 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**COLLIMARE LLC**  
 13401 W 43RD DR  
 GOLDEN, CO  
 US 80403  
 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)