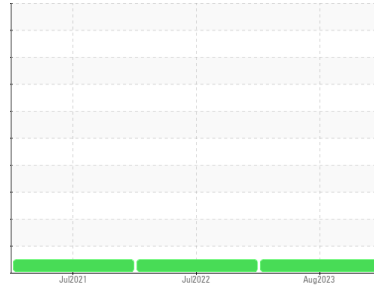




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER BSD 40 7477255 (S/N 1168)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-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		<b>KCPA005203</b>	KCP40388	KCP33219
Sample Date	Client Info		<b>11 Aug 2023</b>	11 Jul 2022	01 Jul 2021
Machine Age	hrs	Client Info	<b>10221</b>	7223	3310
Oil Age	hrs	Client Info	<b>9985</b>	3913	3310
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	0
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	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>2</b>	3	2
Lead	ppm	ASTM D5185m >10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >50	<b>8</b>	7	12
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
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	<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>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 90	<b>3</b>	7	7
Calcium	ppm	ASTM D5185m 2	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	4	5
Zinc	ppm	ASTM D5185m	<b>10</b>	34	0
Sulfur	ppm	ASTM D5185m	<b>21476</b>	20231	17482

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m	<b>5</b>	3	2
Potassium	ppm	ASTM D5185m >20	<b>1</b>	4	2
Water	%	ASTM D6304 >0.05	<b>0.010</b>	0.019	0.011
ppm Water	ppm	ASTM D6304 >500	<b>100.8</b>	195.1	118.5

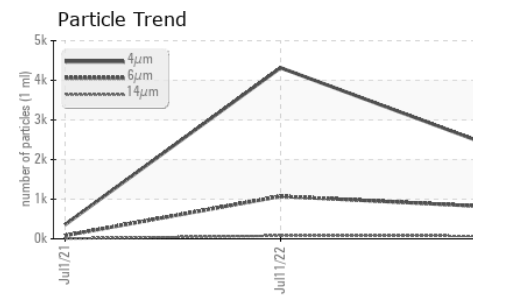
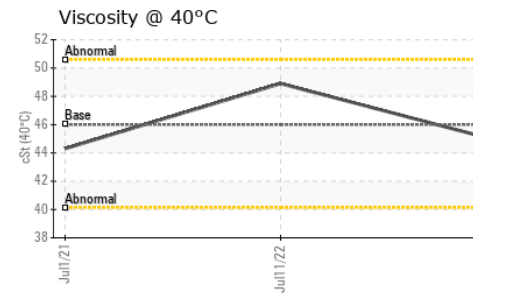
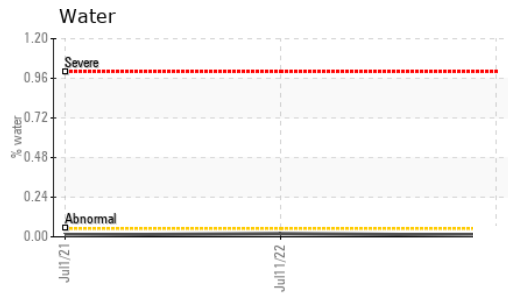
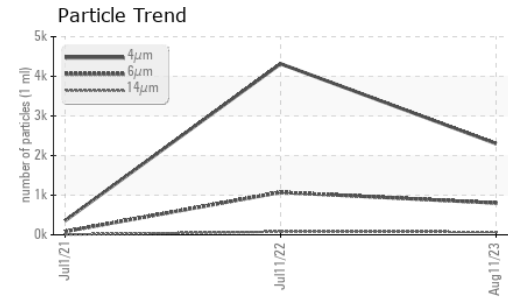
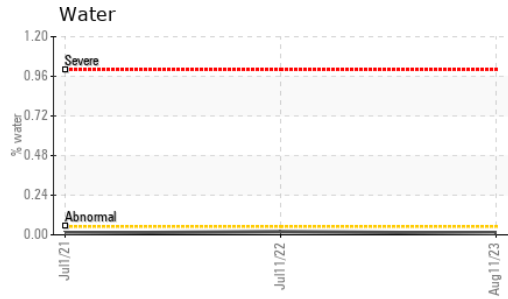
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>2301</b>	4316	357
Particles >6µm	ASTM D7647 >1300		<b>803</b>	1073	82
Particles >14µm	ASTM D7647 >80		<b>72</b>	79	6
Particles >21µm	ASTM D7647 >20		<b>14</b>	11	2
Particles >38µm	ASTM D7647 >4		<b>1</b>	0	0
Particles >71µm	ASTM D7647 >3		<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>18/17/13</b>	19/17/13	14/10

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.45</b>	0.46	0.404

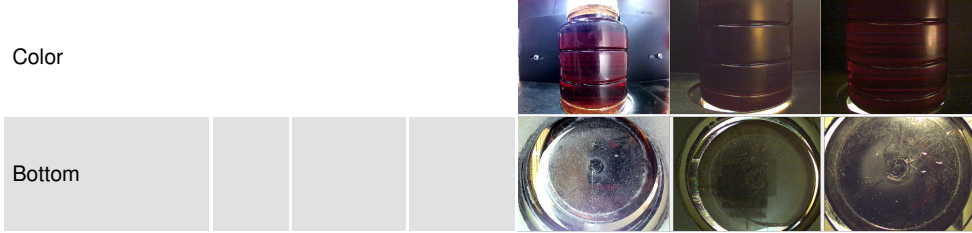
# OIL ANALYSIS REPORT



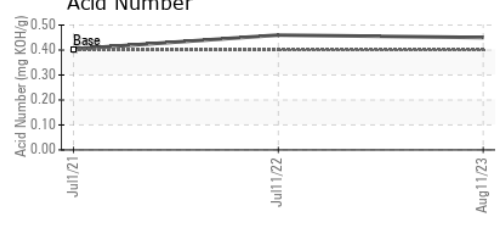
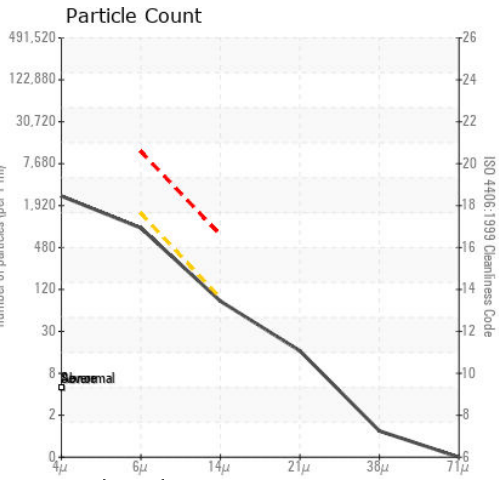
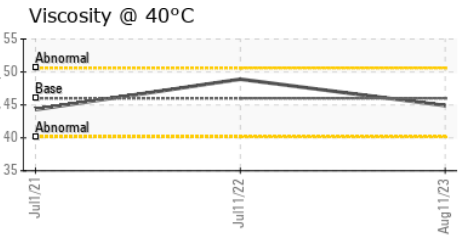
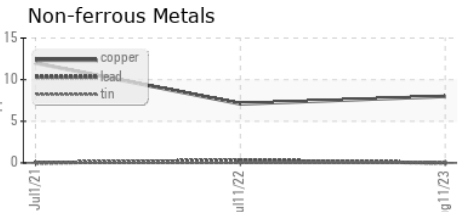
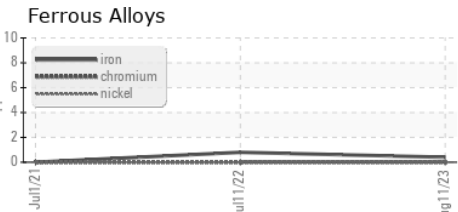
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 46	44.9	48.9	44.3

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA005203 **Received** : 21 Aug 2023  
**Lab Number** : 05930368 **Diagnosed** : 23 Aug 2023  
**Unique Number** : 10615639 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**STARLAND METALS**  
 59917 236TH STREET  
 GIBBON, MN  
 US 55335  
 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: