



# PROBLEM SUMMARY

Sample Rating Trend



ISO



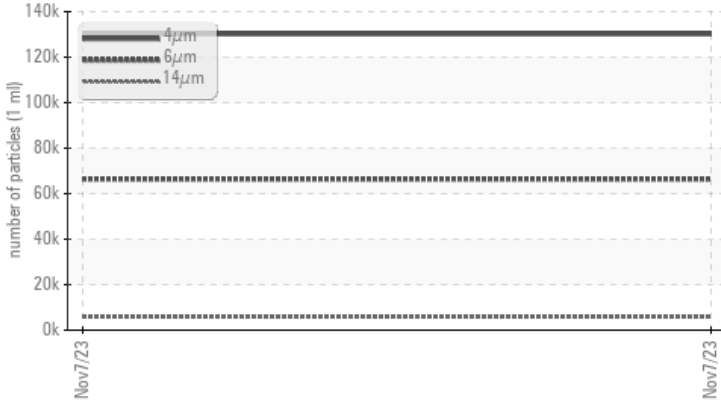
Machine Id  
**4007510 (S/N 1028)**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	---	---
Particles >6µm	ASTM D7647	>1300	▲ <b>66384</b>	---	---	---
Particles >14µm	ASTM D7647	>80	▲ <b>5710</b>	---	---	---
Particles >21µm	ASTM D7647	>20	▲ <b>1208</b>	---	---	---
Particles >38µm	ASTM D7647	>4	▲ <b>26</b>	---	---	---
Oil Cleanliness	ISO 4406 (c)	>17/13	▲ <b>23/20</b>	---	---	---

Customer Id: HOWCLE  
Sample No.: KC63257  
Lab Number: 06006350  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

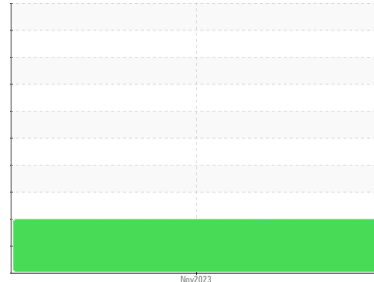
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**4007510 (S/N 1028)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**  
 No corrective action is recommended at this time. 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 high 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>KC63257</b>	---	---
Sample Date	Client Info	<b>07 Nov 2023</b>	---	---
Machine Age	hrs Client Info	<b>81215</b>	---	---
Oil Age	hrs Client Info	<b>6714</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>50	<b>7</b>	---	---
Chromium ppm ASTM D5185m	>10	<b>0</b>	---	---
Nickel ppm ASTM D5185m	>3	<b>0</b>	---	---
Titanium ppm ASTM D5185m	>3	<b>0</b>	---	---
Silver ppm ASTM D5185m	>2	<b>0</b>	---	---
Aluminum ppm ASTM D5185m	>10	<b>&lt;1</b>	---	---
Lead ppm ASTM D5185m	>10	<b>0</b>	---	---
Copper ppm ASTM D5185m	>50	<b>3</b>	---	---
Tin ppm ASTM D5185m	>10	<b>0</b>	---	---
Vanadium ppm ASTM D5185m		<b>0</b>	---	---
Cadmium ppm ASTM D5185m		<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m		<b>0</b>	---	---
Barium ppm ASTM D5185m	90	<b>0</b>	---	---
Molybdenum ppm ASTM D5185m		<b>0</b>	---	---
Manganese ppm ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium ppm ASTM D5185m	90	<b>47</b>	---	---
Calcium ppm ASTM D5185m	2	<b>0</b>	---	---
Phosphorus ppm ASTM D5185m		<b>&lt;1</b>	---	---
Zinc ppm ASTM D5185m		<b>0</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>25	<b>3</b>	---	---
Sodium ppm ASTM D5185m		<b>21</b>	---	---
Potassium ppm ASTM D5185m	>20	<b>&lt;1</b>	---	---
Water % ASTM D6304	>0.05	<b>0.014</b>	---	---
ppm Water ppm ASTM D6304	>500	<b>148.4</b>	---	---

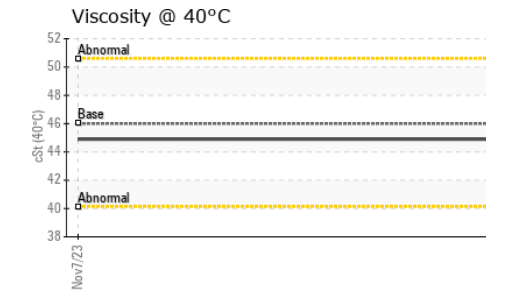
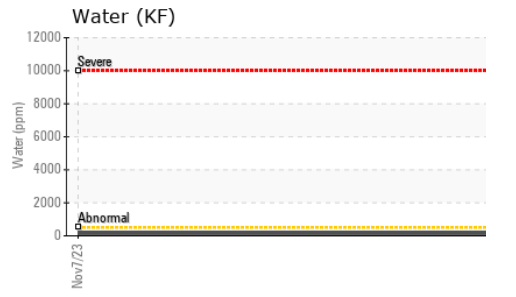
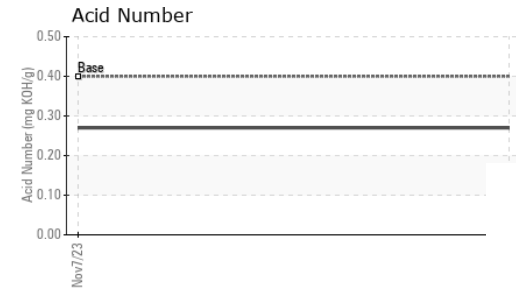
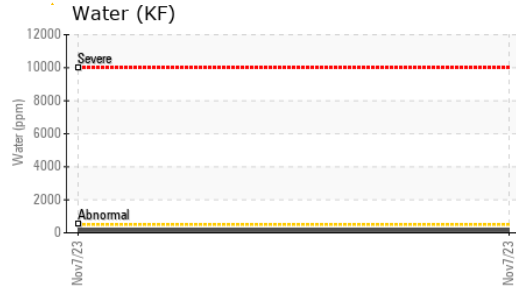
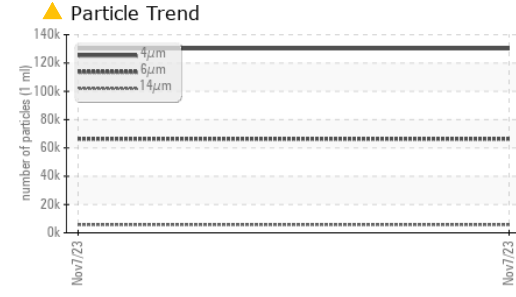
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647		<b>130152</b>	---	---
Particles >6µm ASTM D7647	>1300	<b>▲ 66384</b>	---	---
Particles >14µm ASTM D7647	>80	<b>▲ 5710</b>	---	---
Particles >21µm ASTM D7647	>20	<b>▲ 1208</b>	---	---
Particles >38µm ASTM D7647	>4	<b>▲ 26</b>	---	---
Particles >71µm ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness ISO 4406 (c)	>17/13	<b>▲ 23/20</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045	0.4	<b>0.27</b>	---	---

# OIL ANALYSIS REPORT



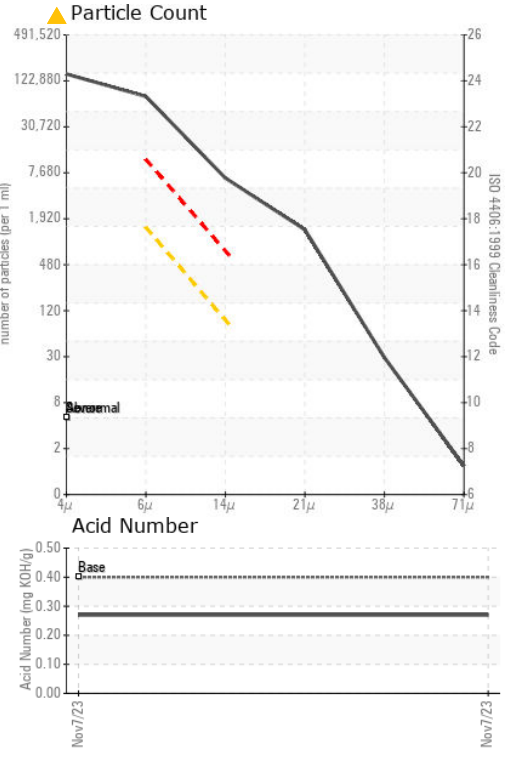
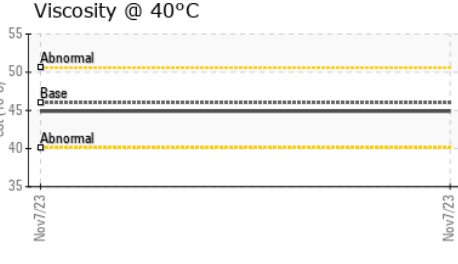
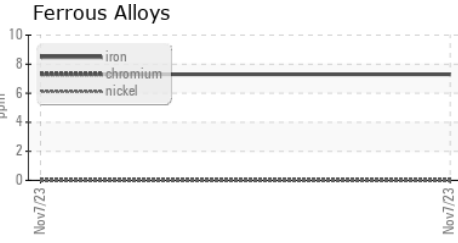
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.9	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC63257 **Received** : 13 Nov 2023  
**Lab Number** : 06006350 **Diagnosed** : 14 Nov 2023  
**Unique Number** : 10740112 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**HOWMET AEROSPACE**  
 3960 S MARGINAL RD  
 CLEVELAND, OH  
 US 44114  
 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)