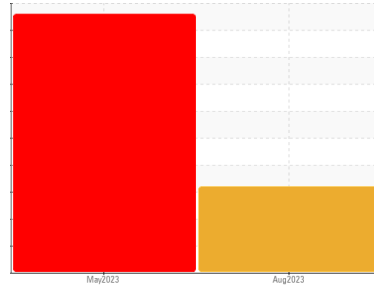# KAESER COMPRESSORS
Built for a lifetime.™
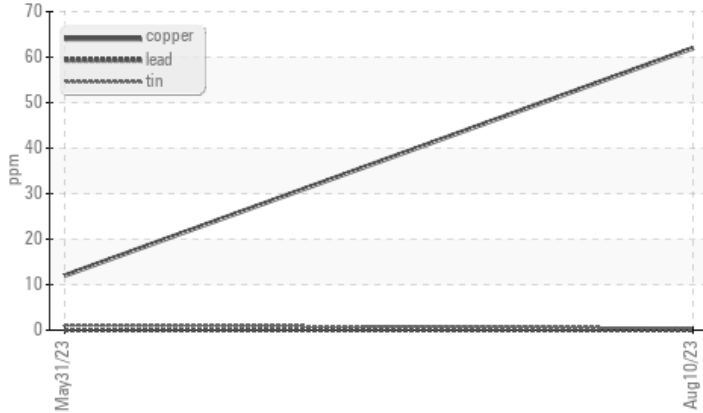
PROBLEM SUMMARY

Sample Rating Trend

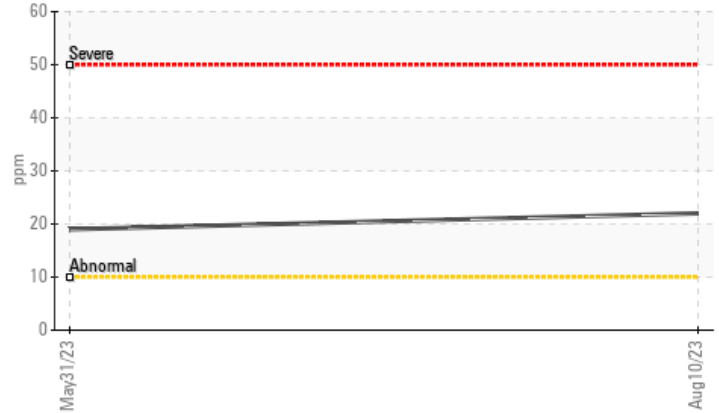Machine Id
5386670 (S/N 4608)
Component
Compressor
Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

May2023   Aug2023

COMPONENT CONDITION SUMMARY

▲ **Non-ferrous Metals**

Legend: copper, lead, tin

▲ **Aluminum (ppm)**

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. There is too much water present in this sample to perform a particle count. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	---
Aluminum	ppm	ASTM D5185m	>10	▲ **22**	▲ 19	---
Copper	ppm	ASTM D5185m	>50	▲ **62**	12	---
Free Water	scalar	*Visual		▲ **1.0**	▲ 1.0	---

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

31 May 2023 Diag: Don Baldridge
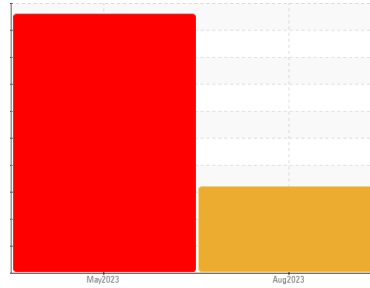
DEGRADATION

view report

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.The iron level is abnormal. The aluminum level is abnormal. Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water present in the oil. Free water present. The AN level is above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

![KAESER COMPRESSORS - Built for a lifetime.]

Sample Rating Trend

May 2023   Aug 2023

WATER

⚠️

Machine Id
5386670 (S/N 4608)
Component
Compressor
Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

⚠️ **Recommendation**

Oil and filter change at the time of sampling has been noted. There is too much water present in this sample to perform a particle count. We recommend an early resample in 500 hours to monitor this condition.

⚠️ **Wear**

Bearing and/or bushing wear is indicated.

⚠️ **Contamination**

Free water present.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number		Client Info	**KCP46381**	KCP55357	---
Sample Date		Client Info	**10 Aug 2023**	31 May 2023	---
Machine Age	hrs	Client Info	**39176**	38316	---
Oil Age	hrs	Client Info	**2786**	3000	---
Oil Changed		Client Info	**Changed**	Changed	---
Sample Status			**ABNORMAL**	SEVERE	---

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**6**	⚠️ 82	---
Chromium	ppm	ASTM D5185m	>10	**0**	<1	---
Nickel	ppm	ASTM D5185m	>3	**0**	0	---
Titanium	ppm	ASTM D5185m	>3	**0**	0	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	⚠️ **22**	⚠️ 19	---
Lead	ppm	ASTM D5185m	>10	**0**	0	---
Copper	ppm	ASTM D5185m	>50	⚠️ **62**	12	---
Tin	ppm	ASTM D5185m	>10	**<1**	1	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	<1	---

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**2**	<1	---
Molybdenum	ppm	ASTM D5185m		**0**	<1	---
Manganese	ppm	ASTM D5185m		**0**	<1	---
Magnesium	ppm	ASTM D5185m		**<1**	5	---
Calcium	ppm	ASTM D5185m		**<1**	4	---
Phosphorus	ppm	ASTM D5185m	500	**418**	231	---
Zinc	ppm	ASTM D5185m		**369**	30	---
Sulfur	ppm	ASTM D5185m		**2292**	810	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	0	---
Sodium	ppm	ASTM D5185m		**0**	3	---
Potassium	ppm	ASTM D5185m	>20	**2**	2	---
Water	%	ASTM D6304	>0.05	**0.049**	⚠️ 0.454	---
ppm Water	ppm	ASTM D6304	>500	**490**	⚠️ 4540	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	**1.17**	🔴 9.262	---

Report Id: BAKLAKCA [WUSCAR] 05938268 (Generated: 08/31/2023 13:57:09) Rev: 1   Contact/Location: Service Manager - BAKLAKCA

Page 3 of 4

OIL ANALYSIS REPORT

KAESER COMPRESSORS — Built for a lifetime.

Charts (left column)

- Aluminum (ppm)
- Water
- Acid Number
- Water
- Viscosity @ 40°C
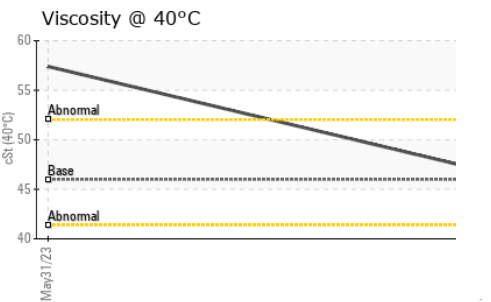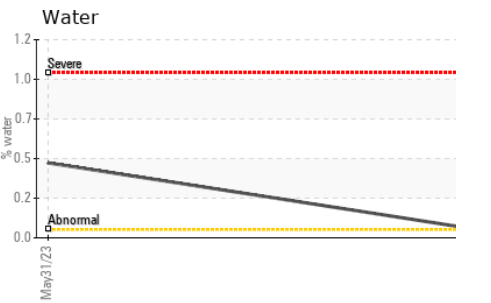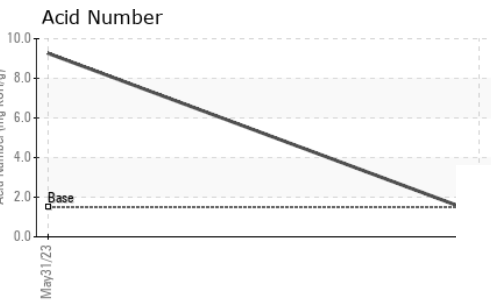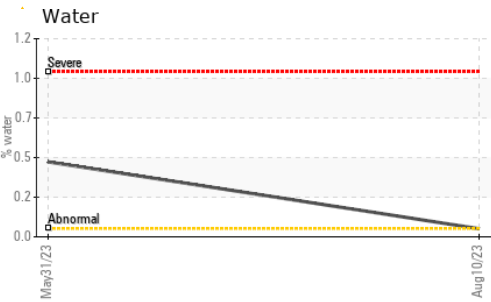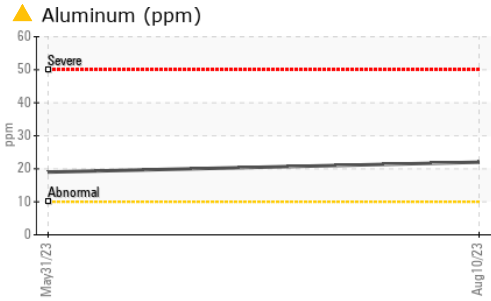
VISUAL

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**	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	▲ HAZY	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.05	**0.2%**	▲ 0.2%	---
Free Water	scalar	*Visual		▲ **1.0**	▲ 1.0	---

FLUID PROPERTIES

FLUID PROPERTIES	method		limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**47.0**	▲ 57.4	---

SAMPLE IMAGES

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

GRAPHS

- Ferrous Alloys (iron, chromium, nickel)
- ▲ Non-ferrous Metals (copper, lead, tin)
- Viscosity @ 40°C
- Acid Number
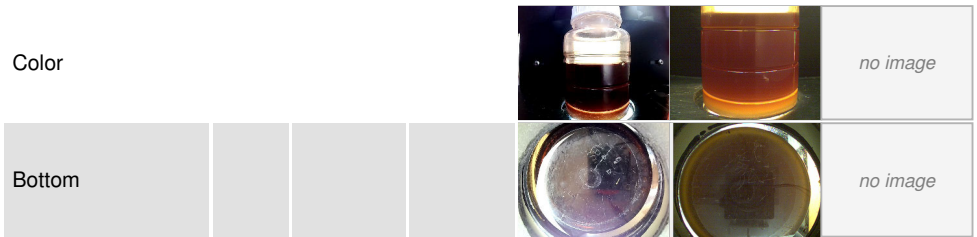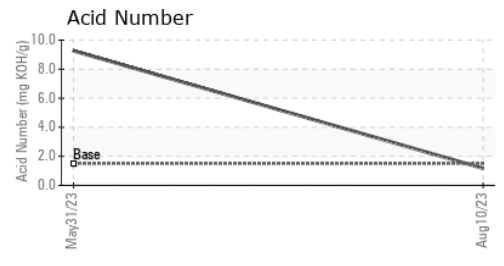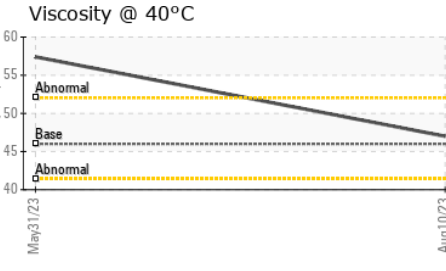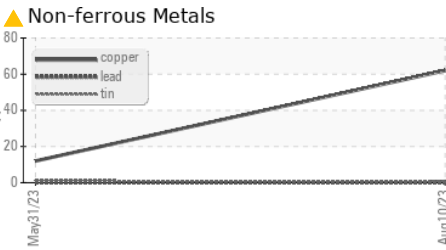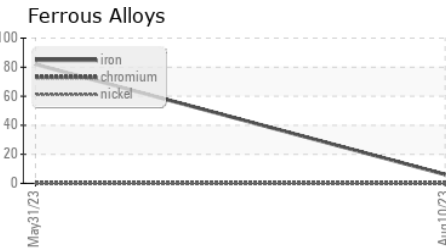
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

BAKER WATER TREATMENT
50 CIVIC CENTER DR
LAKE FOREST, CA
US 92630
Contact: Service Manager

Sample No. : KCP46381   **Received** : 30 Aug 2023
Lab Number : 05938268   **Diagnosed** : 31 Aug 2023
Unique Number : 10628880   **Diagnostician** : Don Baldridge
Test Package : IND 2 (Additional Tests: KF, PrtCount)

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY — Certificate L2367

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: