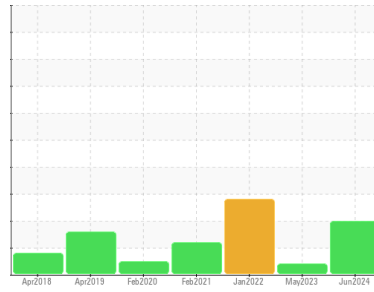




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**KAESER CSD 100 4815291 (S/N 1138)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

**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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA014696</b>	KCPA002791	KCP35491
Sample Date	Client Info			<b>06 Jun 2024</b>	15 May 2023	26 Jan 2022
Machine Age	hrs	Client Info		<b>86327</b>	77043	66071
Oil Age	hrs	Client Info		<b>9000</b>	0	7000
Oil Changed	Client Info			<b>Not Chngd</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	4	6
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>3</b>	0	3
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m	>50	<b>11</b>	16	25
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

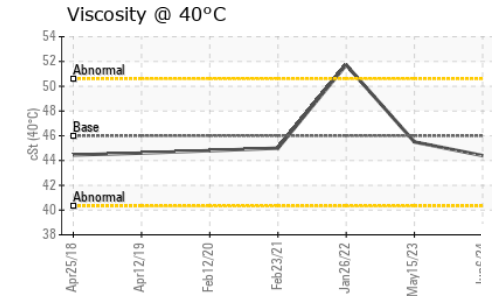
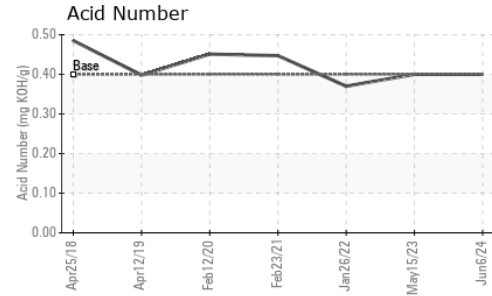
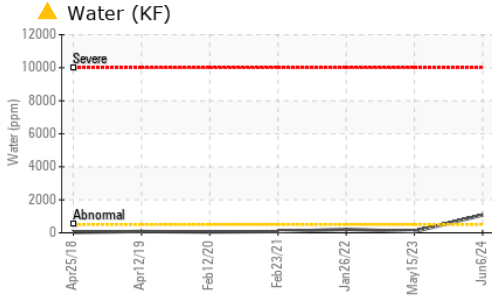
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	4
Barium	ppm	ASTM D5185m	90	<b>1</b>	4	58
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	8
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	90	<b>2</b>	3	171
Calcium	ppm	ASTM D5185m	2	<b>0</b>	3	378
Phosphorus	ppm	ASTM D5185m		<b>5</b>	12	244
Zinc	ppm	ASTM D5185m		<b>3</b>	7	283
Sulfur	ppm	ASTM D5185m		<b>12591</b>	16387	11592

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	2
Sodium	ppm	ASTM D5185m		<b>0</b>	2	0
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Water	%	ASTM D6304	>0.05	<b>▲ 0.108</b>	0.007	0.020
ppm Water	ppm	ASTM D6304	>500	<b>▲ 1080</b>	74.0	209.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>---</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>---</b>	---	---
Particles >14µm		ASTM D7647	>80	<b>---</b>	---	---
Particles >21µm		ASTM D7647	>20	<b>---</b>	---	---
Particles >38µm		ASTM D7647	>4	<b>---</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>---</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>---</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.40</b>	0.40	0.37

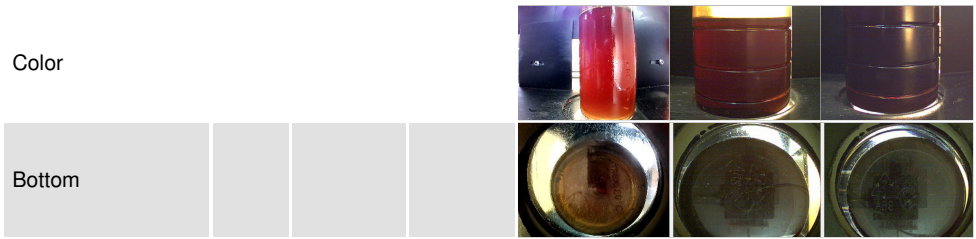
# OIL ANALYSIS REPORT



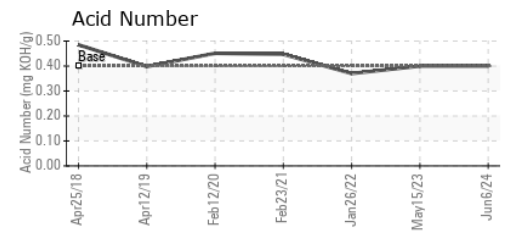
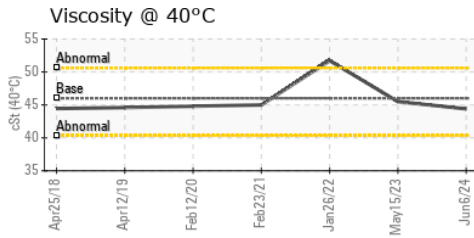
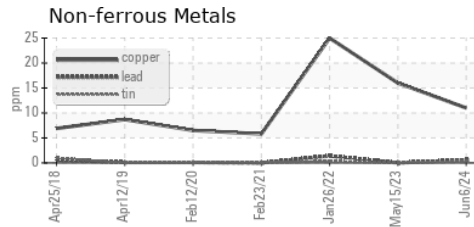
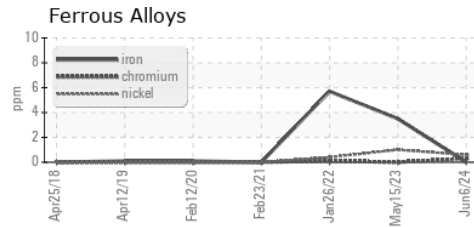
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ HEAVY
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	44.4	45.5	▲ 51.72

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA014696 **Received** : 24 Jun 2024  
**Lab Number** : 06218770 **Tested** : 27 Jun 2024  
**Unique Number** : 11096967 **Diagnosed** : 27 Jun 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**PQ CORPORATION**  
 1201 FRONT ST  
 CHESTER, PA  
 US 19013

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)

Contact: CHESTER ADMIN  
 chesteradmin@pqcorp.com