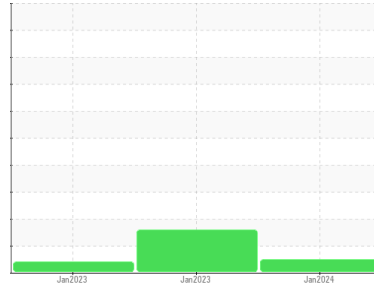




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**8301993 (S/N 1278)**  
 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>KCPA008640</b>	KCP54106	KC95295
Sample Date	Client Info			<b>08 Jan 2024</b>	11 Jan 2023	10 Jan 2023
Machine Age	hrs	Client Info		<b>6084</b>	3365	3365
Oil Age	hrs	Client Info		<b>0</b>	3300	3300
Oil Changed	Client Info			<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</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>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>6</b>	6	6
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

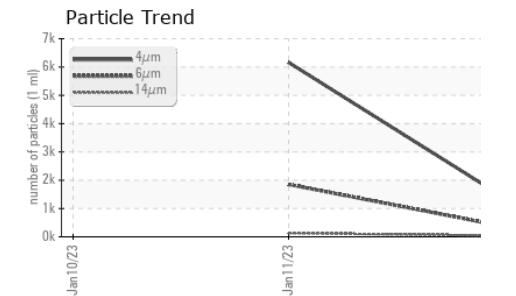
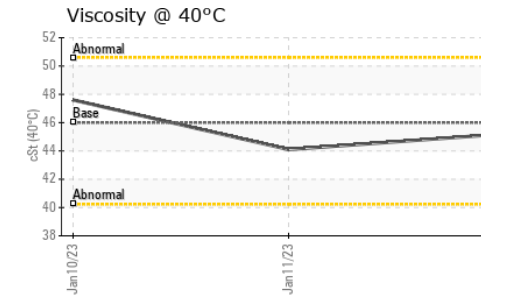
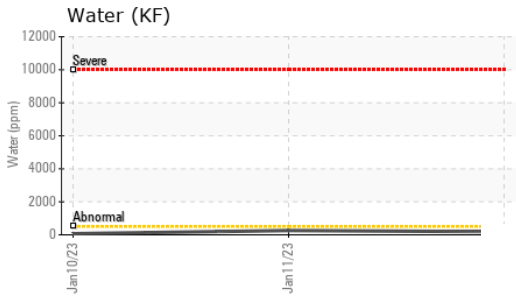
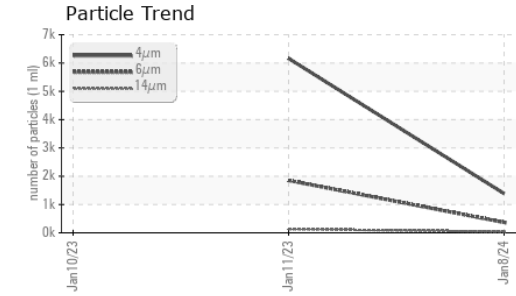
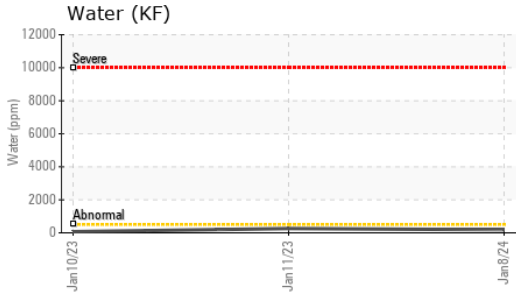
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m	90	<b>10</b>	2	35
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	90	<b>58</b>	42	57
Calcium	ppm	ASTM D5185m	2	<b>2</b>	<1	3
Phosphorus	ppm	ASTM D5185m		<b>36</b>	5	11
Zinc	ppm	ASTM D5185m		<b>0</b>	14	6
Sulfur	ppm	ASTM D5185m		<b>21767</b>	18355	23273

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>1</b>	<1	1
Sodium	ppm	ASTM D5185m		<b>22</b>	15	23
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Water	%	ASTM D6304	>0.05	<b>0.018</b>	0.026	0.006
ppm Water	ppm	ASTM D6304	>500	<b>187</b>	260.1	69.6

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>1388</b>	6162	---
Particles >6µm		ASTM D7647	>1300	<b>368</b>	▲ 1852	---
Particles >14µm		ASTM D7647	>80	<b>38</b>	▲ 132	---
Particles >21µm		ASTM D7647	>20	<b>11</b>	▲ 35	---
Particles >38µm		ASTM D7647	>4	<b>1</b>	4	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>18/16/12</b>	▲ 20/18/14	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	<b>0.32</b>	0.36	0.34

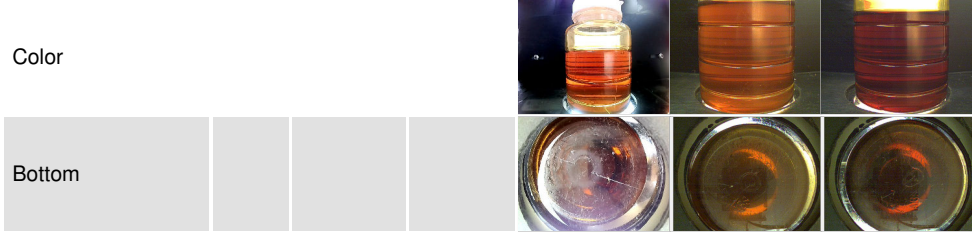
# OIL ANALYSIS REPORT



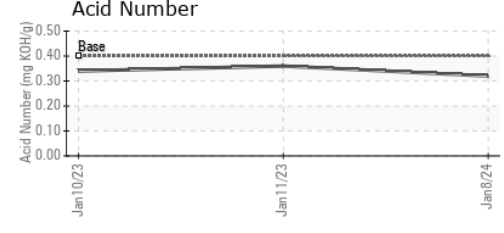
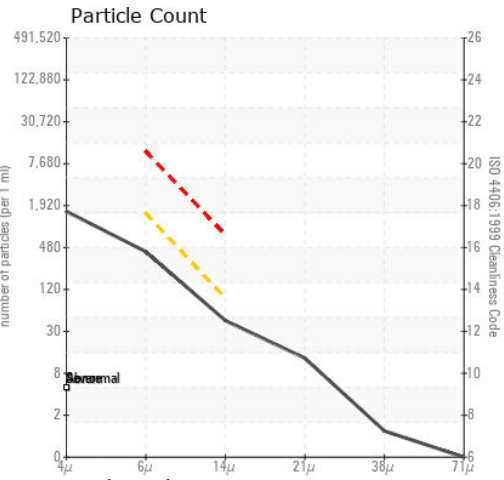
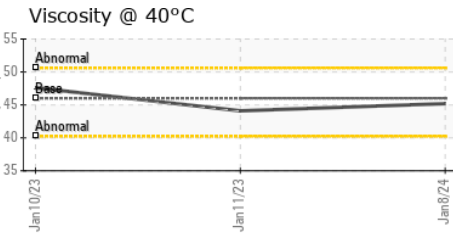
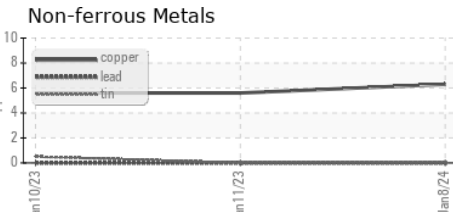
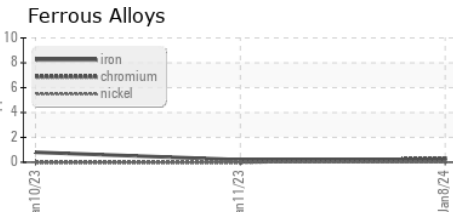
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT ▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45.2	44.1	47.6

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA008640 **Received** : 12 Jan 2024  
**Lab Number** : 06060283 **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10831665 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**TOTAL TITANIUM INC**  
 281 KENNEDY DR  
 RED BUD, IL  
 US 62278  
 Contact: Service Manager

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: