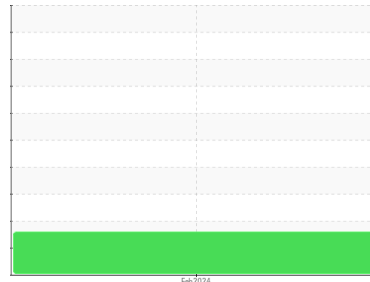


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
9130038 (S/N 1645)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. The 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	KCPA011621	---	---
Sample Date	Client Info	09 Feb 2024	---	---
Machine Age	hrs Client Info	3249	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >50	<1	---	---
Chromium ppm	ASTM D5185m >10	<1	---	---
Nickel ppm	ASTM D5185m >3	<1	---	---
Titanium ppm	ASTM D5185m >3	<1	---	---
Silver ppm	ASTM D5185m >2	<1	---	---
Aluminum ppm	ASTM D5185m >10	<1	---	---
Lead ppm	ASTM D5185m >10	<1	---	---
Copper ppm	ASTM D5185m >50	8	---	---
Tin ppm	ASTM D5185m >10	<1	---	---
Vanadium ppm	ASTM D5185m	0	---	---
Cadmium ppm	ASTM D5185m	<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 0	0	---	---
Barium ppm	ASTM D5185m 90	5	---	---
Molybdenum ppm	ASTM D5185m 0	6	---	---
Manganese ppm	ASTM D5185m	<1	---	---
Magnesium ppm	ASTM D5185m 100	28	---	---
Calcium ppm	ASTM D5185m 0	12	---	---
Phosphorus ppm	ASTM D5185m 0	0	---	---
Zinc ppm	ASTM D5185m 0	30	---	---
Sulfur ppm	ASTM D5185m 23500	19415	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	4	---	---
Sodium ppm	ASTM D5185m	4	---	---
Potassium ppm	ASTM D5185m >20	4	---	---
Water %	ASTM D6304 >0.05	0.019	---	---
ppm Water ppm	ASTM D6304 >500	196	---	---

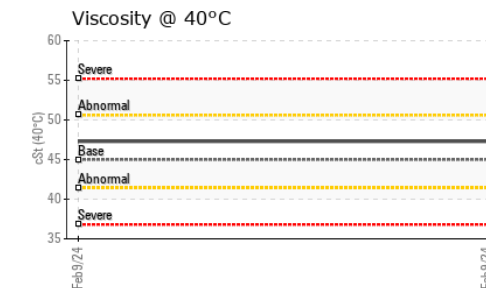
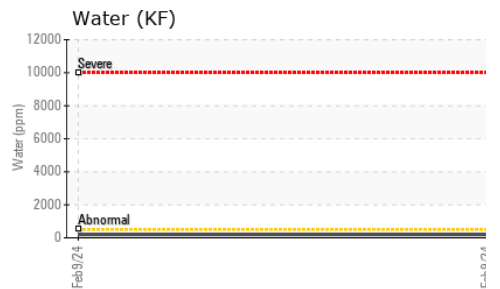
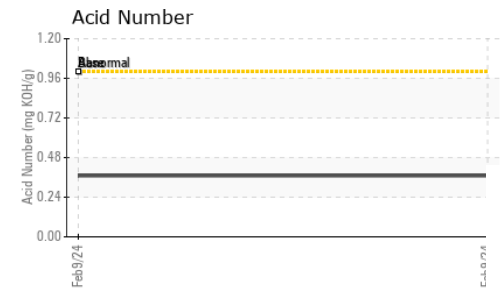
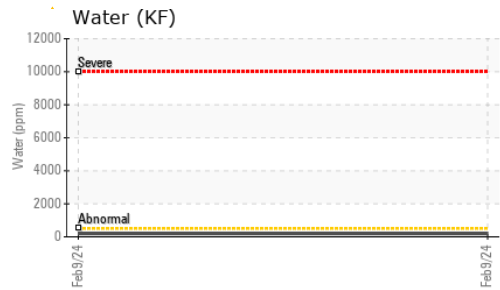
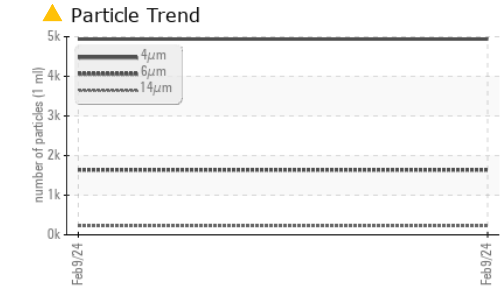
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	4941	---	---
Particles >6µm	ASTM D7647 >1300	▲ 1638	---	---
Particles >14µm	ASTM D7647 >80	▲ 222	---	---
Particles >21µm	ASTM D7647 >20	▲ 68	---	---
Particles >38µm	ASTM D7647 >4	2	---	---
Particles >71µm	ASTM D7647 >3	0	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 19/18/15	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 1.0	0.37	---	---

OIL ANALYSIS REPORT



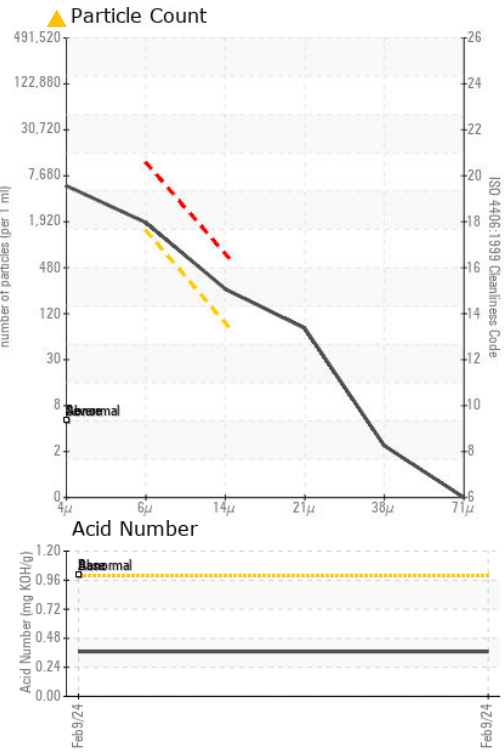
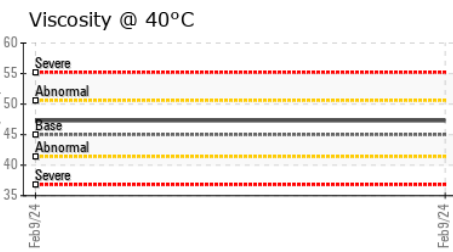
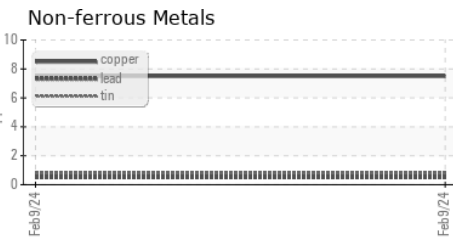
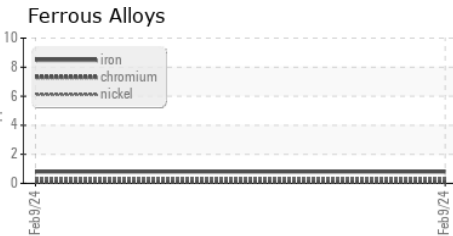
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	45	47.3	---

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. : KCPA011621 **Received** : 23 Feb 2024
Lab Number : 06098389 **Tested** : 26 Feb 2024
Unique Number : 10896619 **Diagnosed** : 26 Feb 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

TORAY ADVANCED COMPOSITES
 18410 BUTTERFIELD BLVD
 MORGAN HILL, CA
 US 95037
 Contact: J. ROTOLO
 j.rotolo@toraytac-usa.com

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)