



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

8445471 (S/N 1634)

Component

Compressor

Fluid

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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	KCPA016107	---	---
Sample Date	Client Info	01 Jul 2024	---	---
Machine Age	hrs	Client Info	2903	---
Oil Age	hrs	Client Info	2903	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	2	---
Chromium	ppm	ASTM D5185m >10	0	---
Nickel	ppm	ASTM D5185m >3	0	---
Titanium	ppm	ASTM D5185m >3	0	---
Silver	ppm	ASTM D5185m >2	0	---
Aluminum	ppm	ASTM D5185m >10	<1	---
Lead	ppm	ASTM D5185m >10	0	---
Copper	ppm	ASTM D5185m >50	6	---
Tin	ppm	ASTM D5185m >10	0	---
Vanadium	ppm	ASTM D5185m	0	---
Cadmium	ppm	ASTM D5185m	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	---
Barium	ppm	ASTM D5185m 90	1	---
Molybdenum	ppm	ASTM D5185m 0	0	---
Manganese	ppm	ASTM D5185m	<1	---
Magnesium	ppm	ASTM D5185m 100	55	---
Calcium	ppm	ASTM D5185m 0	<1	---
Phosphorus	ppm	ASTM D5185m 0	<1	---
Zinc	ppm	ASTM D5185m 0	0	---
Sulfur	ppm	ASTM D5185m 23500	21566	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	7	---
Sodium	ppm	ASTM D5185m	16	---
Potassium	ppm	ASTM D5185m >20	6	---
Water	%	ASTM D6304 >0.05	0.023	---
ppm Water	ppm	ASTM D6304 >500	231	---

FLUID CLEANLINESS

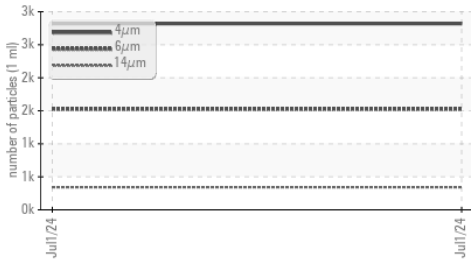
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	2819	---	---
Particles >6µm	ASTM D7647 >1300	▲ 1527	---	---
Particles >14µm	ASTM D7647 >80	▲ 342	---	---
Particles >21µm	ASTM D7647 >20	▲ 93	---	---
Particles >38µm	ASTM D7647 >4	1	---	---
Particles >71µm	ASTM D7647 >3	0	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 19/18/16	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.30	---

OIL ANALYSIS REPORT

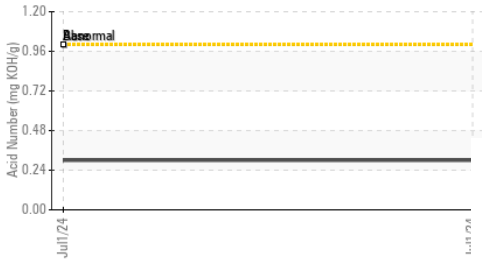
▲ Particle Trend



Water (KF)



Acid Number



Water (KF)



Viscosity @ 40°C



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	45	42.9	---

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

GRAPHS

Ferrous Alloys

Element	Current Value	Limit
iron	~2	~2
chromium	~0.5	~0.5
nickel	~0.5	~0.5

▲ Particle Count

ISO 4406:1999 Cleanliness Code	Number of particles (per 1 ml)
10	~1920
12	~1200
14	~480
16	~120
18	~10
20	~2
22	~0.5
24	~0.2
26	~0.1

Non-ferrous Metals

Element	Current Value	Limit
copper	~6	~6
lead	~0.5	~0.5
tin	~0.5	~0.5

Viscosity @ 40°C

Viscosity (cSt)	Current Value	Limit
Severe	~42.9	~45
Abnormal	~42.9	~45
Base	~42.9	~45
Abnormal	~42.9	~45
Severe	~42.9	~45

Acid Number

Acid Number (mg KOH/g)	Current Value	Limit
Abnormal	~0.24	~0.96



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : KCPA016107

Lab Number : 06238408

Unique Number : 11127242

Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

Received : 16 Jul 2024

Tested : 17 Jul 2024

Diagnosed : 18 Jul 2024 - Don Baldrige

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