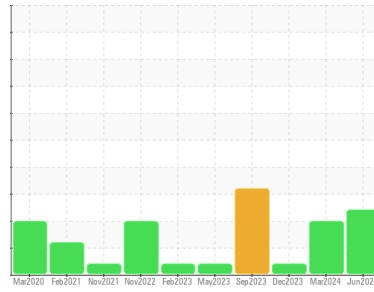




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
6665019 (S/N 1037)
 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 moderate amount of visible silt present in the sample. There is a light concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KC102230	KC111841	KC124459
Sample Date	Client Info			01 Jun 2024	12 Mar 2024	01 Dec 2023
Machine Age	hrs	Client Info		14222	13543	12876
Oil Age	hrs	Client Info		620	3854	0
Oil Changed	Client Info			Not Chngd	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	3	0	<1
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>3	0	<1	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	9	<1	2
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	16	7	10
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

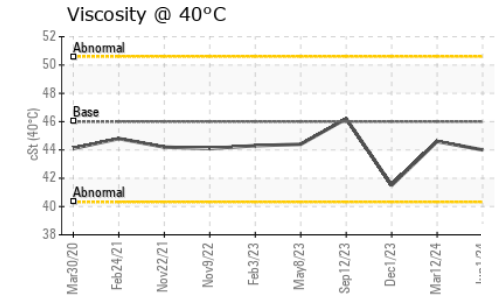
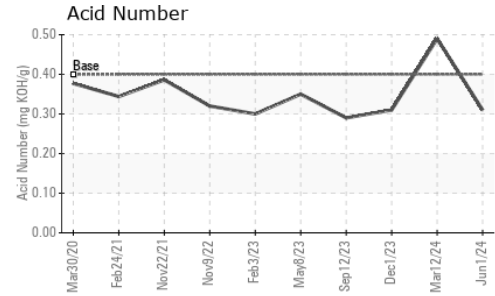
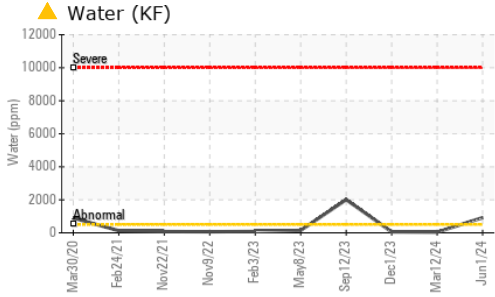
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	2	0	3
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	90	6	<1	0
Calcium	ppm	ASTM D5185m	2	1	0	<1
Phosphorus	ppm	ASTM D5185m		1	0	47
Zinc	ppm	ASTM D5185m		56	33	20

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	0	0
Sodium	ppm	ASTM D5185m		21	5	0
Potassium	ppm	ASTM D5185m	>20	3	2	3
Water	%	ASTM D6304	>0.05	▲ 0.092	0.004	0.005
ppm Water	ppm	ASTM D6304	>500	▲ 920	41	59

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		---	9932	---
Particles >6µm		ASTM D7647	>1300	---	▲ 2879	---
Particles >14µm		ASTM D7647	>80	---	▲ 271	---
Particles >21µm		ASTM D7647	>20	---	▲ 98	---
Particles >38µm		ASTM D7647	>4	---	▲ 11	---
Particles >71µm		ASTM D7647	>3	---	▲ 1	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	---	▲ 20/19/15	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.31	0.49	0.31

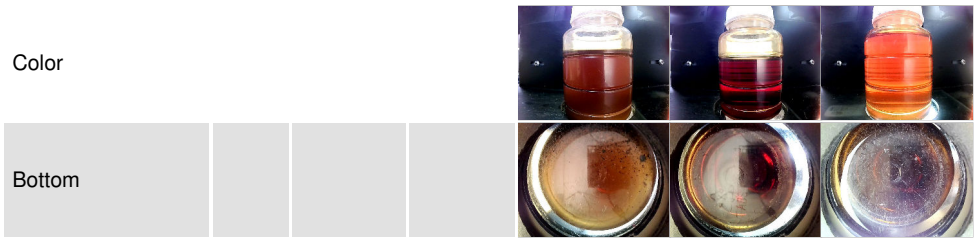
OIL ANALYSIS REPORT



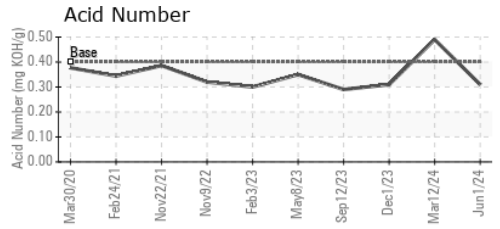
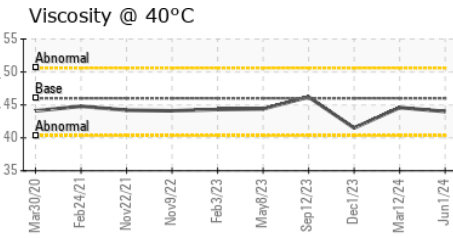
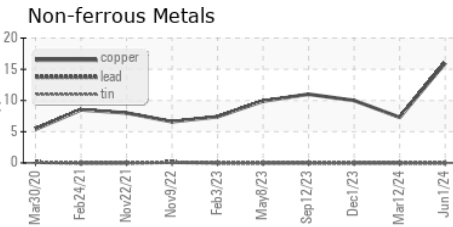
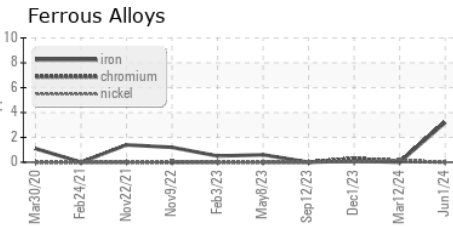
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	▲ MODER	NONE	LIGHT
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.0	44.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC102230
Lab Number : 06212388
Unique Number : 11085252
Test Package : IND 2
Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Don Baldrige

SPARTAN COMPOSITES
 135 GUS HIPP BLVD
 ROCKLEDGE, FL
 US 32955
 Contact: CHRISTINE BARNHART

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)