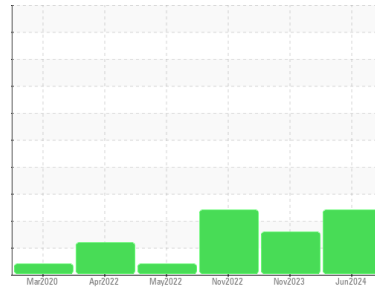




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
KAESER ASD 40ST 6186854 (S/N 4460)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. 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. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA018833	KCPA011332	KCP52148
Sample Date	Client Info			04 Jun 2024	30 Nov 2023	23 Nov 2022
Machine Age	hrs	Client Info		56973	52580	43586
Oil Age	hrs	Client Info		4464	0	5254
Oil Changed	Client Info			Not Chngd	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	2	0	3
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	5	0	<1
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	18	3	5
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

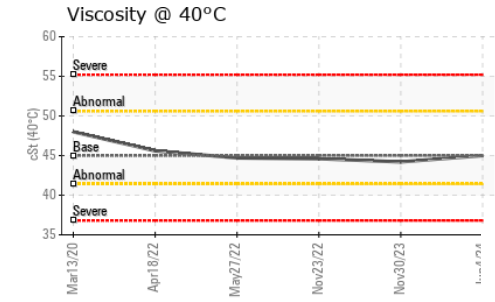
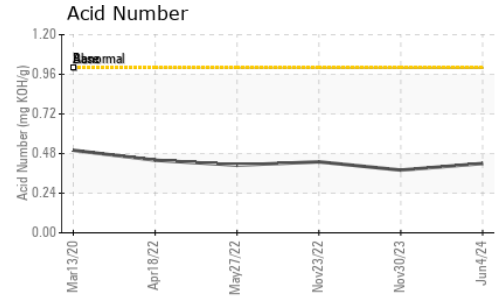
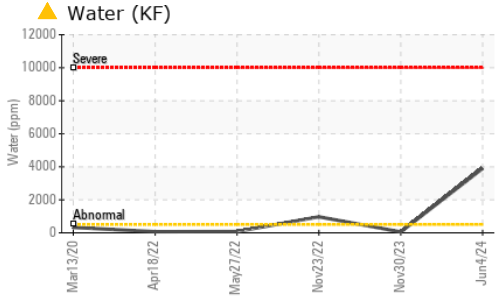
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	90	3	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	100	3	0	1
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	0	2	2	22
Zinc	ppm	ASTM D5185m	0	3	0	3
Sulfur	ppm	ASTM D5185m	23500	15244	9257	13064

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	0	<1
Sodium	ppm	ASTM D5185m		<1	1	<1
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water	%	ASTM D6304	>0.05	▲ 0.390	0.005	▲ 0.097
ppm Water	ppm	ASTM D6304	>500	▲ 3900	54	▲ 970

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		---	16688	108524
Particles >6µm		ASTM D7647	>1300	---	▲ 4196	▲ 13487
Particles >14µm		ASTM D7647	>80	---	▲ 419	41
Particles >21µm		ASTM D7647	>20	---	▲ 122	8
Particles >38µm		ASTM D7647	>4	---	3	0
Particles >71µm		ASTM D7647	>3	---	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	---	▲ 21/19/16	▲ 24/21/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.42	0.38	0.43

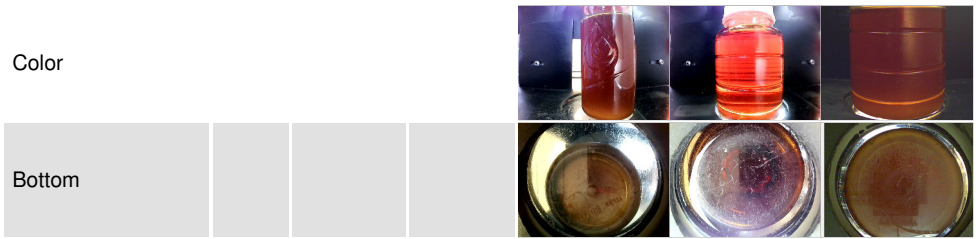
OIL ANALYSIS REPORT



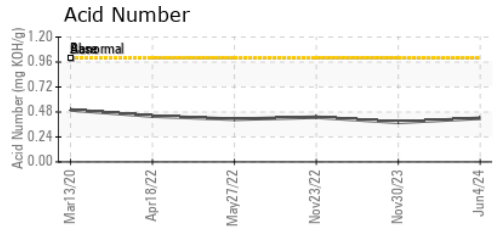
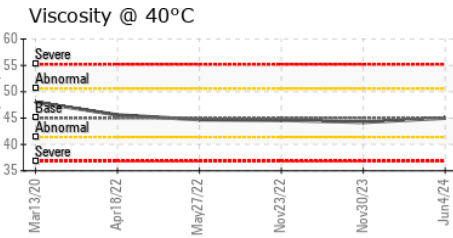
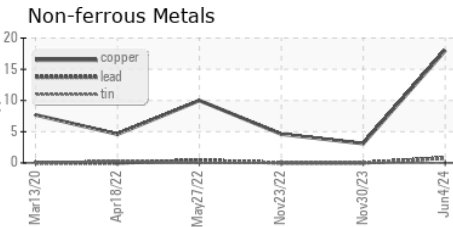
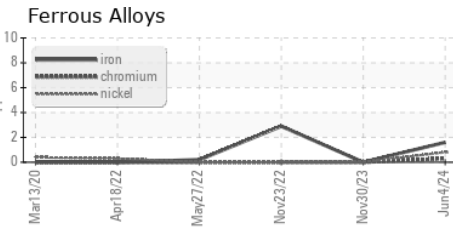
PARAMETER	VISUAL	method	limit/base	current	history1	history2
White Metal	White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	Debris	scalar	*Visual	NONE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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 45	45.0	44.2	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. : KCPA018833 **Received** : 21 Jun 2024
Lab Number : 06216925 **Tested** : 24 Jun 2024
Unique Number : 11089789 **Diagnosed** : 24 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

METAL SOLUTIONS
 1519 INTERSTATE 30 W
 GREENVILLE, TX
 US 75402
 Contact: SERVICE MANAGER

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)