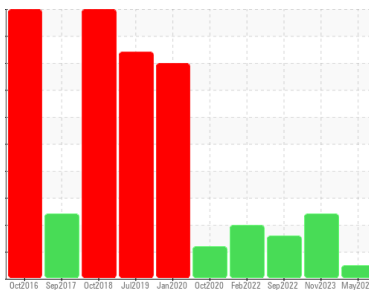


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
KAESER SX 5 4805293 (S/N 1073)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and 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

The amount and size of particulates present in the system are acceptable.

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			KCPA018937	KCPA011222	KCP50168
Sample Date	Client Info			29 May 2024	21 Nov 2023	26 Sep 2022
Machine Age	hrs	Client Info		80075	75869	66050
Oil Age	hrs	Client Info		5000	0	3000
Oil Changed	Client Info			Changed	N/A	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	<1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	<1	<1	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	0
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	42	▲ 55	42
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

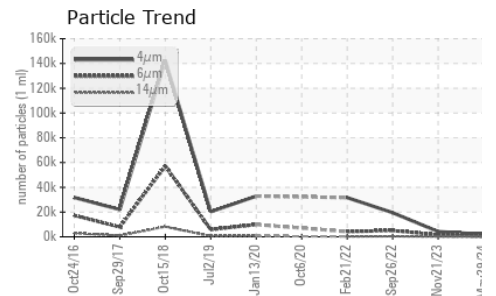
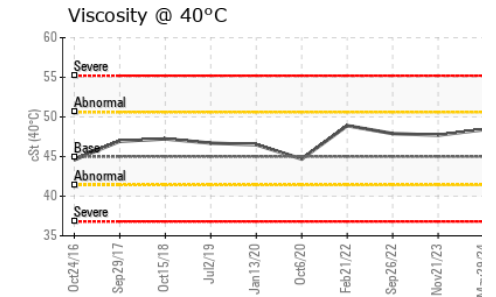
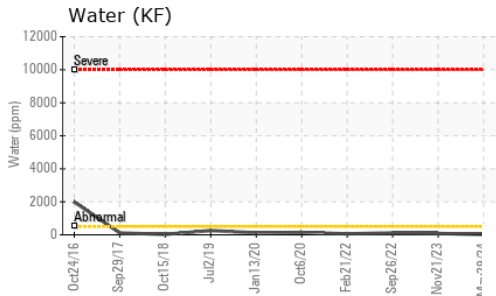
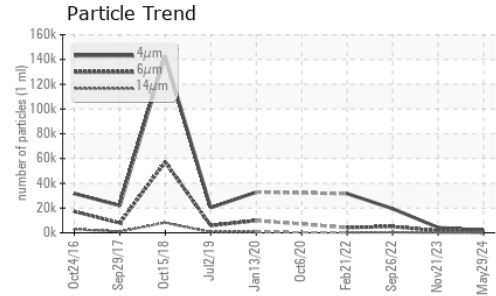
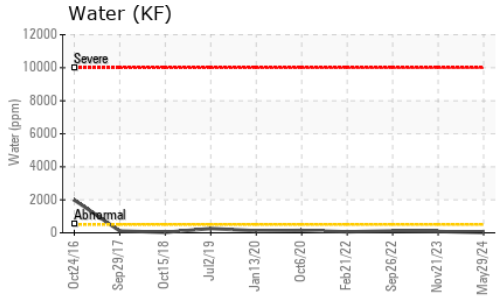
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	100	6	<1	5
Calcium	ppm	ASTM D5185m	0	0	<1	0
Phosphorus	ppm	ASTM D5185m	0	6	6	10
Zinc	ppm	ASTM D5185m	0	80	95	115
Sulfur	ppm	ASTM D5185m	23500	19599	17643	20028

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	1	<1
Sodium	ppm	ASTM D5185m		<1	0	4
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Water	%	ASTM D6304	>0.05	0.002	0.008	0.011
ppm Water	ppm	ASTM D6304	>500	17	82	119.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1999	4225	19473
Particles >6µm		ASTM D7647	>1300	664	● 1461	▲ 5068
Particles >14µm		ASTM D7647	>80	47	● 115	▲ 435
Particles >21µm		ASTM D7647	>20	12	● 25	▲ 118
Particles >38µm		ASTM D7647	>4	2	1	4
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	18/17/13	● 19/18/14	▲ 21/20/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.32	1.08	0.34

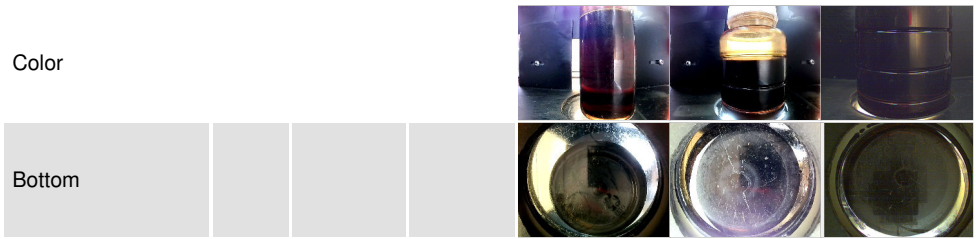
OIL ANALYSIS REPORT



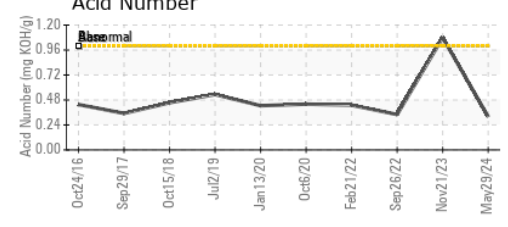
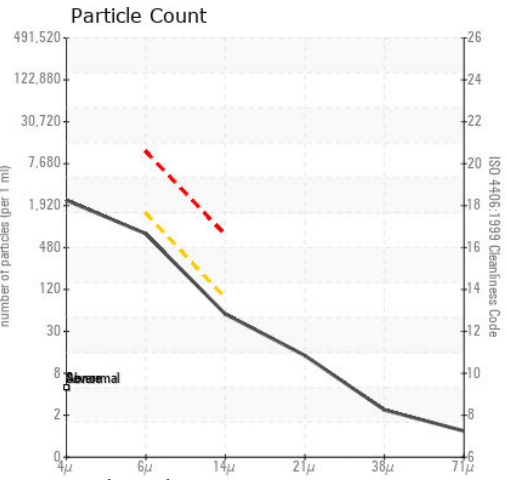
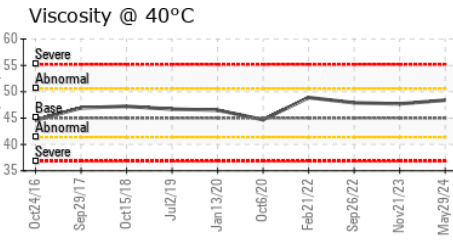
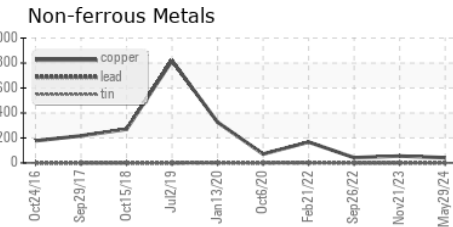
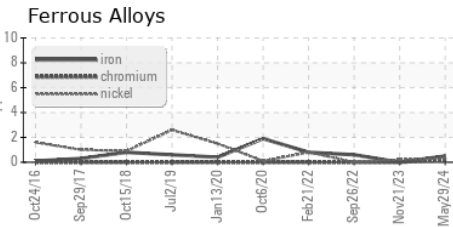
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 45	48.4	47.7	47.9

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA018937
Lab Number : 06203407
Unique Number : 11070868
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 07 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 11 Jun 2024 - Angela Borella

HAMP HARN FARMS
 11812 PALM GROVE RD
 WHITELAW, WI
 US 54247
 Contact: WOLFGANG DAIRY
 wolfgangdairy11812@gmail.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)