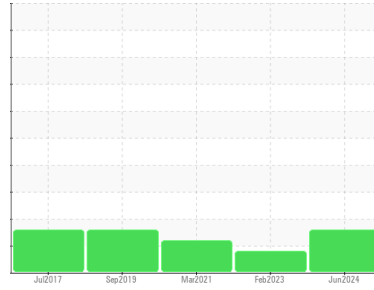




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER SM 15T 3867958 (S/N 1257)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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

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			KCPA012347	KCP46215	KCP27708
Sample Date	Client Info			19 Jun 2024	16 Feb 2023	15 Mar 2021
Machine Age	hrs	Client Info		38121	33286	25183
Oil Age	hrs	Client Info		3602	8103	5296
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	9	0	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	3	37	10
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

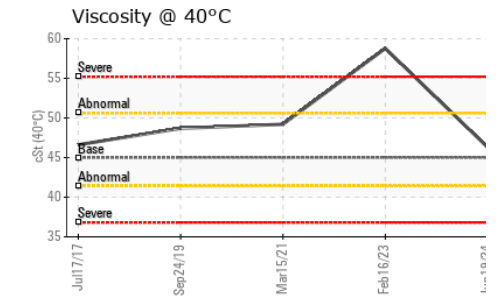
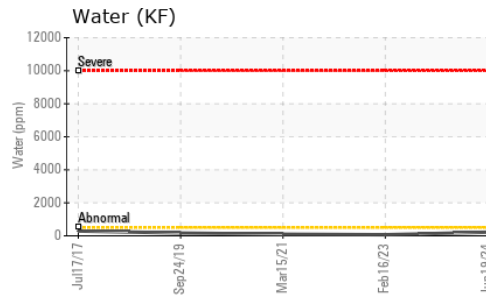
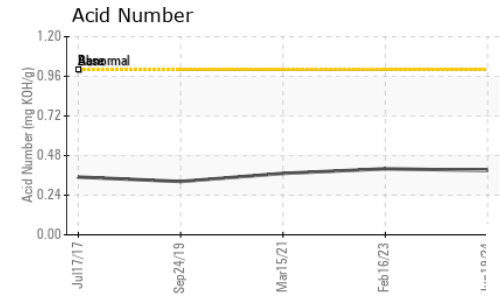
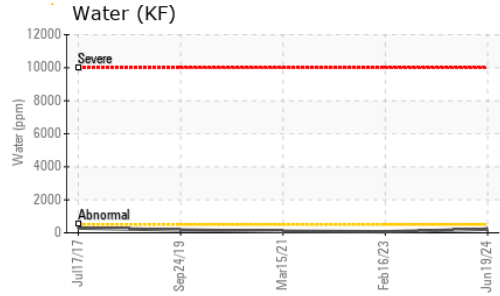
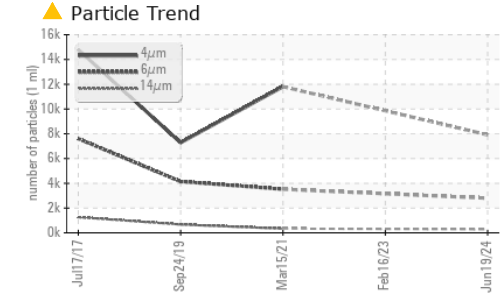
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1	0	<1
Barium	ppm	ASTM D5185m	90	29	<1	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	100	64	23	16
Calcium	ppm	ASTM D5185m	0	2	0	0
Phosphorus	ppm	ASTM D5185m	0	56	1	2
Zinc	ppm	ASTM D5185m	0	12	82	30
Sulfur	ppm	ASTM D5185m	23500	20078	18719	14492

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	<1	0
Sodium	ppm	ASTM D5185m		13	7	6
Potassium	ppm	ASTM D5185m	>20	<1	0	1
Water	%	ASTM D6304	>0.05	0.022	0.006	0.009
ppm Water	ppm	ASTM D6304	>500	221	65.9	98.2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		7912	---	11806
Particles >6µm		ASTM D7647	>1300	▲ 2797	---	▲ 3519
Particles >14µm		ASTM D7647	>80	▲ 282	---	▲ 336
Particles >21µm		ASTM D7647	>20	▲ 78	---	▲ 90
Particles >38µm		ASTM D7647	>4	0	---	1
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>17/13	▲ 19/15	---	▲ 19/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.39	0.40	0.372

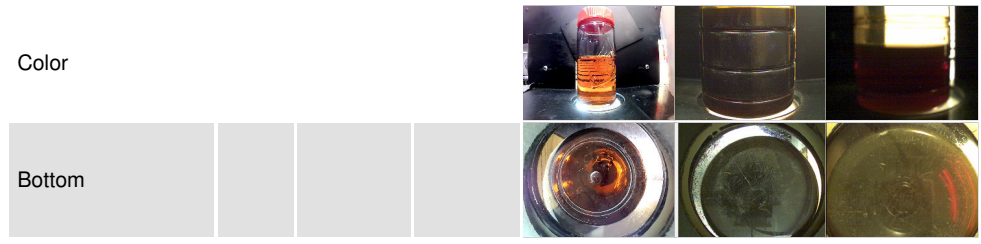
OIL ANALYSIS REPORT



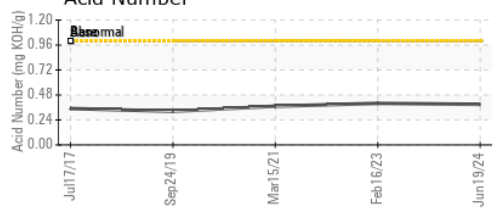
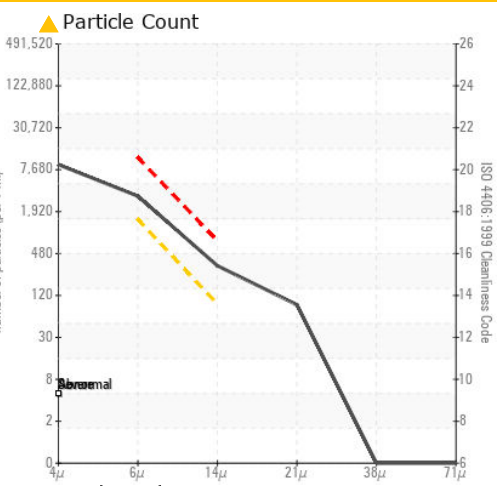
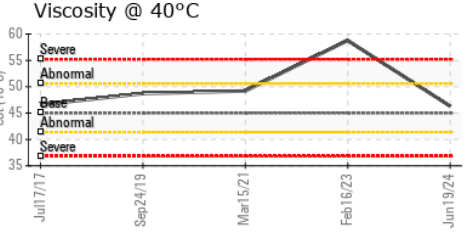
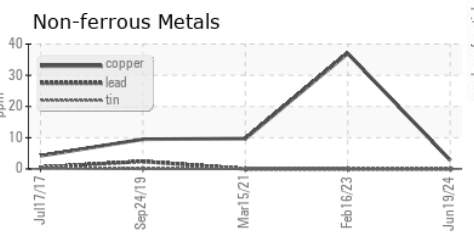
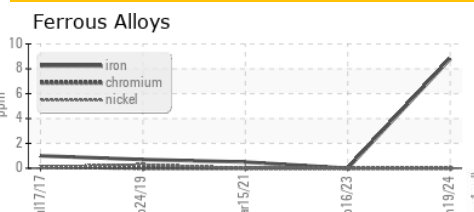
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	▲ 46.3	58.78

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA012347 **Received** : 12 Jul 2024
Lab Number : 06234899 **Tested** : 15 Jul 2024
Unique Number : 11123733 **Diagnosed** : 15 Jul 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

KRAMERS CUSTOM KITCHENS
 47 OCTOBER HILL RD
 HOLLISTON, MA
 US 01746
 Contact: SERVICE MANAGER
 rossini3@verizon.net

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)