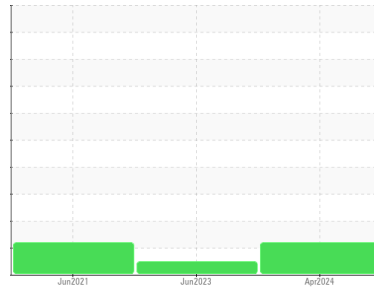




# OIL ANALYSIS REPORT

## Sample Rating Trend



Machine Id  
**KAESER 4238047 (S/N 1081)**  
 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 moderate 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			<b>KCPA013344</b>	KCPA003898	KCP33947
Sample Date	Client Info			<b>29 Apr 2024</b>	07 Jun 2023	16 Jun 2021
Machine Age	hrs Client Info			<b>73084</b>	65260	48463
Oil Age	hrs Client Info			<b>0</b>	0	3639
Oil Changed	Client Info			<b>Changed</b>	N/A	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	15	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

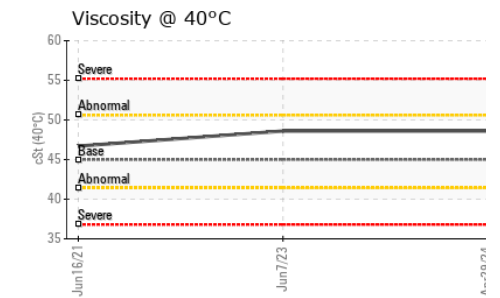
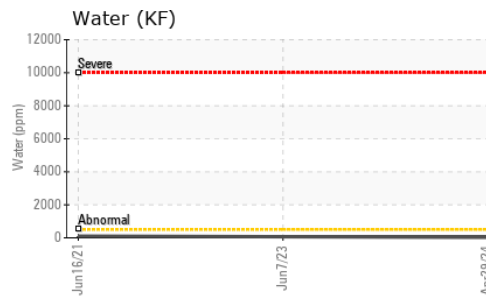
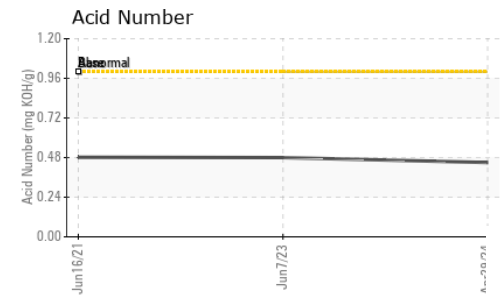
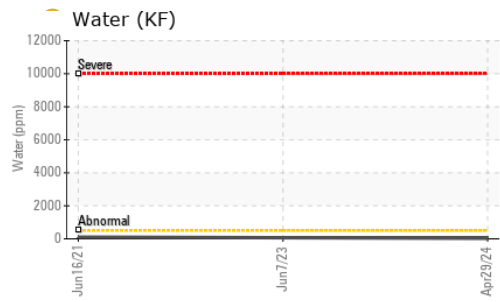
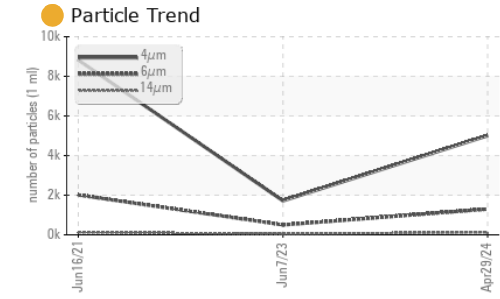
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	17
Barium	ppm	ASTM D5185m	90	<b>0</b>	0	16
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	100	<b>0</b>	<1	25
Calcium	ppm	ASTM D5185m	0	<b>0</b>	0	22
Phosphorus	ppm	ASTM D5185m	0	<b>0</b>	27	12
Zinc	ppm	ASTM D5185m	0	<b>0</b>	10	10
Sulfur	ppm	ASTM D5185m	23500	<b>20812</b>	17613	18167

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	1	1
Sodium	ppm	ASTM D5185m		<b>1</b>	<1	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	2
Water	%	ASTM D6304	>0.05	<b>0.002</b>	0.006	0.010
ppm Water	ppm	ASTM D6304	>500	<b>25</b>	66.6	106.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>5007</b>	1717	8821
Particles >6µm		ASTM D7647	>1300	<b>1300</b>	501	2011
Particles >14µm		ASTM D7647	>80	<b>124</b>	48	124
Particles >21µm		ASTM D7647	>20	<b>43</b>	17	31
Particles >38µm		ASTM D7647	>4	<b>3</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>20/17/14</b>	18/16/13	18/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.45</b>	0.48	0.482

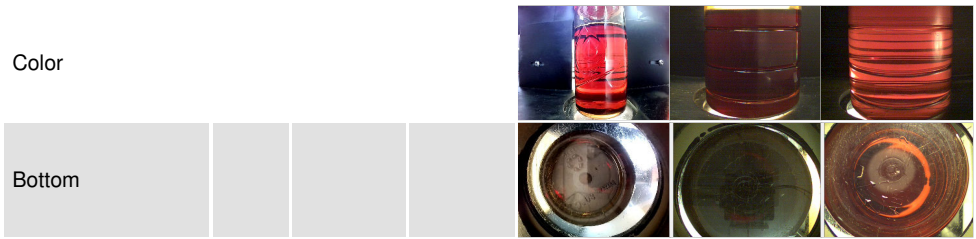
# OIL ANALYSIS REPORT



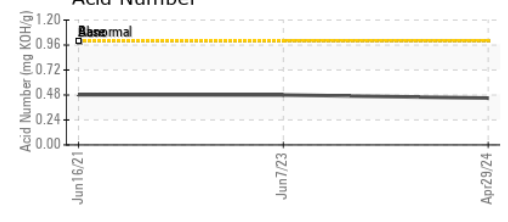
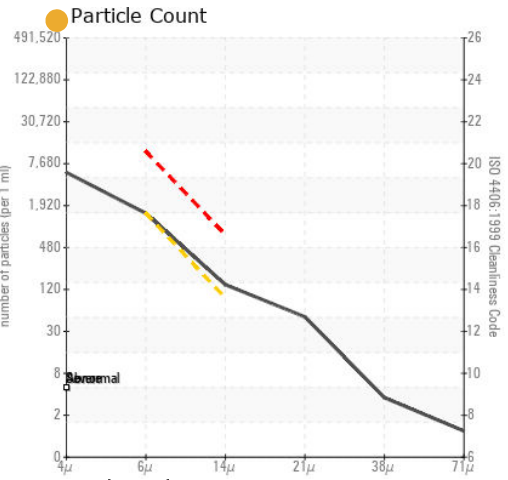
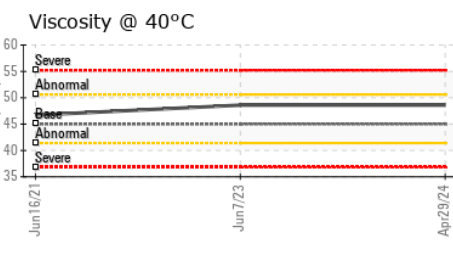
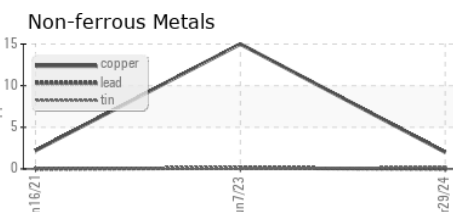
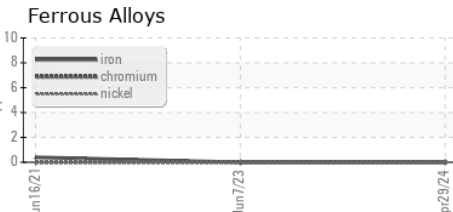
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	48.6	48.6	46.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA013344 **Received** : 09 May 2024  
**Lab Number** : 06174624 **Tested** : 10 May 2024  
**Unique Number** : 11020677 **Diagnosed** : 13 May 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**U-HAUL REPAIR**  
 11351 PYRITES WAY  
 RANCHO CORDOVA, CA  
 US 95670  
 Contact: JOHN CROWLEY  
 john\_crowley@uhaul.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)