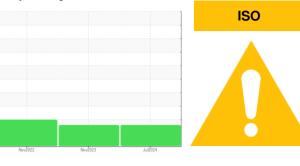


### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **KAESER 6434789**

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

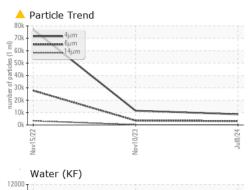
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

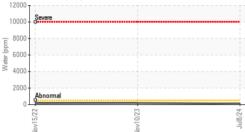
	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA017445	KCPA007663	KCP47975
Sample Date		Client Info		08 Jul 2024	10 Nov 2023	15 Nov 2022
Machine Age	hrs	Client Info		34767	29957	29954
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	<1	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	0	<1	21
Tin	ppm	ASTM D5185m	>10	0	<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	8	83	2
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	100	47	86	4
Calcium	ppm	ASTM D5185m	0	0	2	12
Phosphorus	ppm	ASTM D5185m	0	<1	3	7
	pp					
Zinc	ppm	ASTM D5185m	0	21	0	10
		ASTM D5185m ASTM D5185m	0 23500	21 23547	0 20917	
Zinc	ppm				÷	10
Zinc Sulfur	ppm	ASTM D5185m method	23500	23547	20917	10 20693
Zinc Sulfur CONTAMINANTS	ppm ppm	ASTM D5185m method	23500 limit/base	23547 current	20917 history1	10 20693 history2
Zinc Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	23500 limit/base	23547 current 2	20917 history1 <1	10 20693 history2 <1
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	23500 limit/base >25 >20	23547 current 2 8	20917 history1 <1 <1	10 20693 history2 <1 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	23500 limit/base >25 >20 >0.05	23547 current 2 8 0	20917 history1 <1 <1 <1	10 20693 history2 <1 2 0
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	23500 limit/base >25 >20 >0.05	23547 current 2 8 0 0.011	20917 history1 <1 <1 <1 <1 0.021	10 20693 history2 <1 2 0 0 0.018
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647	23500 limit/base >25 >20 >20 >0.05 >500 limit/base	23547 current 2 8 0 0.011 114 current 8662	20917 history1 <1 <1 <1 <1 0.021 211 history1 11553	10 20693  history2 <1 2 0 0.018 184.9 history2 77046
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300	23547 current 2 8 0 0.011 114 current 8662 ▲ 3154	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556	10 20693 history2 <1 2 0 0 0.018 184.9 history2 77046 ▲ 27787
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	23500 imit/base >25 >20 >0.05 >500 imit/base >1300 >80	23547 current 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218	10 20693 <history2 &lt;1 2 0 0 0.018 184.9 history2 77046 ▲ 27787 ▲ 3342</history2 
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 imit/base >25 >20 >0.05 >500 imit/base >1300 >80 >20	23547 current 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197 ▲ 30	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218 ▲ 47	10 20693
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 imit/base >25 >20 >0.05 >500 imit/base >1300 >80 >20 >20 >4	23547 23547 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197 ▲ 30 2	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218	10 20693 history2 <1 2 0 0.018 184.9 Fistory2 77046 ▲ 27787 ▲ 3342 ▲ 768 ▲ 36
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	23547 current 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197 ▲ 30 2 0	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218 ▲ 47 2 1	10 20693
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 imit/base >25 >20 >0.05 >500 imit/base >1300 >80 >20 >20 >4	23547 23547 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197 ▲ 30 2	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218 ▲ 218 47 2	10 20693
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm % ppm ESS	ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	23547 current 2 8 0 0.011 114 current 8662 ▲ 3154 ▲ 197 ▲ 30 2 0	20917 history1 <1 <1 <1 0.021 211 history1 11553 ▲ 3556 ▲ 218 ▲ 47 2 1	10 20693

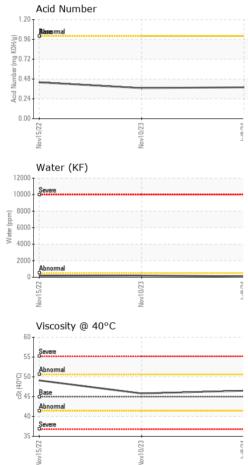
Contact/Location: J. BILAL - UPSLAT Page 1 of 2



## **OIL ANALYSIS REPORT**

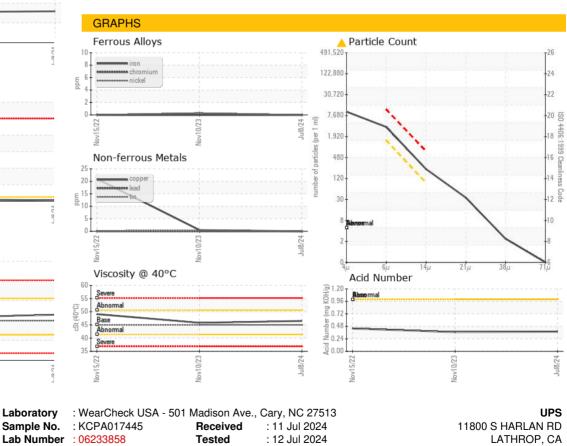






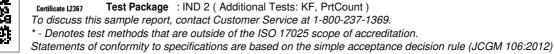
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	46.5	45.8	49.1
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						
					17 and	

Bottom



: 13 Jul 2024 - Don Baldridge





Diagnosed

Unique Number : 11122692

US 95330 Contact: J. BILAL jbilal@ups.com T: F:

Report Id: UPSLAT [WUSCAR] 06233858 (Generated: 07/13/2024 13:53:37) Rev: 1

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