

## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

### Machine Id KAESER SK 20 6744632 (S/N 1321)

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 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.

	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA017817	KCPA001689	KCP38221
Sample Date		Client Info		28 May 2024	10 May 2023	11 Feb 2022
Machine Age	hrs	Client Info		19749	16396	13432
Oil Age	hrs	Client Info		3353	0	3533
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	0
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>10	2	2	<1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m		3	2	2
Tin	ppm	ASTM D5185m	>10	ء <1	0	0
Antimony	ppm	ASTM D5185m	- 10			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium		ASTM D5185m		0	0	0
	ppm					
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m		0	0	5
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	100	4	0	46
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	0	0	0	3
	10 10 100	ASTM D5185m	0	0	0	0
Zinc	ppm					
Zinc Sulfur	ppm	ASTM D5185m	23500	21430	23596	17152
-	ppm	ASTM D5185m method	23500 limit/base	21430 current	23596 history1	17152 history2
Sulfur	ppm		limit/base			
Sulfur CONTAMINANTS	ppm	method	limit/base	current	history1	history2
Sulfur CONTAMINANTS Silicon	ppm ppm	method ASTM D5185m	limit/base >25	current	history1 0	history2 0
Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	current <1 0	<mark>history1</mark> 0 1	history2 0 2
Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25 >20	current <1 0 <1	history1 0 1 0	history2 0 2 2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm % ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	limit/base >25 >20 >0.05	<pre>current &lt;1 0 &lt;1 0.007</pre>	history1 0 1 0 0.018	history2 0 2 2 0.003
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm % ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	limit/base >25 >20 >0.05 >500	current <1 0 <1 0.007 76	history1 0 1 0 0.018 186.3	history2 0 2 2 0.003 32.7
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm % ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	limit/base >25 >20 >0.05 >500 limit/base	current <1 0 <1 0.007 76 current	history1 0 1 0 0.018 186.3 history1	history2 0 2 2 0.003 32.7 history2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm % ppm	methodASTM D5185mASTM D5185mASTM D6304ASTM D6304methodASTM D7647	limit/base >25 >20 >0.05 >500 limit/base	current <1 0 <1 0.007 76 current 17212	history1 0 1 0 0.018 186.3 history1 1211	history2 0 2 2 0.003 32.7 history2 4362
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm % ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D6304ASTM D6304methodASTM D7647ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80	current         <1         0.007         76         current         17212         ▲ 6876         ▲ 494	history1         0         1         0         0.018         186.3         history1         1211         328	history2           0           2           0.003           32.7           history2           4362           1079
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm % ppm	methodASTM D5185mASTM D5185mASTM D6304ASTM D6304ASTM D6304ASTM D6304ASTM D7647ASTM D7647ASTM D7647ASTM D7647ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80	current         <1         0         <1         0.007         76         current         17212         ▲ 6876	history1 0 1 0 0.018 186.3 history1 1211 328 18	history2 0 2 2 0.003 32.7 history2 4362 1079 36
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm % ppm	method           ASTM D5185m           ASTM D5185m           ASTM D5185m           ASTM D6304           ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	current         <1         0.007         76         current         17212         ▲ 6876         ▲ 494         ▲ 118         3	history1 0 1 0 0.018 186.3 history1 1211 328 18 4	history2 0 2 2 0.003 32.7 history2 4362 1079 36 7
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	current         <1         0.007         76         current         17212         ▲ 6876         494         ▲ 118	history1         0         1         0         0.018         186.3         history1         1211         328         18         4         0	history2           0           2           0.003           32.7           history2           4362           1079           36           7           0
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm % ppm ESS	method           ASTM D5185m           ASTM D6304           ASTM D6304           ASTM D7647           ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	current         <1         0.007         76         current         17212         ▲ 6876         ▲ 118         3         0	history1         0         1         0         0.018         186.3         history1         1211         328         18         4         0         0         0         0	history2           0           2           0.003           32.7           history2           4362           1079           36           7           0           0           0

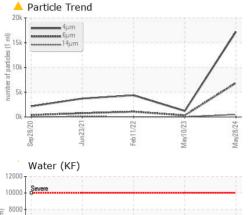
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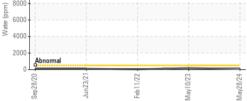
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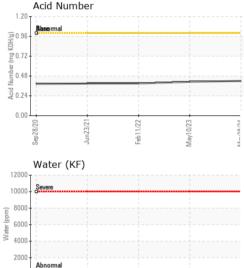


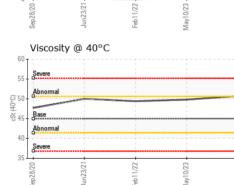
#### Built for a lifetime







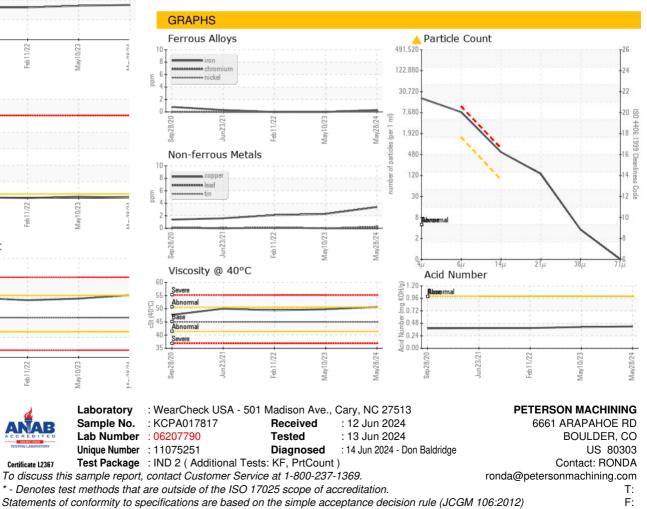




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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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 PROPERT	IES	method	limit/base	current	history1	history2
FLUID PROPERT Visc @ 40°C	T <mark>IES</mark> cSt	method ASTM D445	limit/base 45	current 50.7	history1 49.8	history2 49.4
	cSt					
Visc @ 40°C	cSt	ASTM D445	45	50.7	49.8	49.4



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