

PROBLEM SUMMARY

Sample Rating Trend

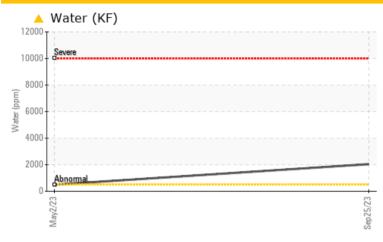
WATER

KAESER 3901508 (S/N 1767)

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count on this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	NORMAL			
Water	%	ASTM D6304	>0.05	△ 0.204	0.049			
ppm Water	ppm	ASTM D6304	>500	2040	496.6			

Customer Id: NORLIV Sample No.: KCPA006192 Lab Number: 05967038 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Alert			?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

02 May 2023 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.





OIL ANALYSIS REPORT

IDT



WATER



Machine Id

KAESER 3901508 (S/N 1767)

Component

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count on this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a light concentration of water 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 Number Client Info KCPA006192 KCP53479 Sample Date Client Info 25 Sep 2023 02 May 2023 Machine Age hrs Client Info 0 0 Oil Age hrs Client Info 0 0 Oil Changed Client Info N/A N/A Sample Status BNORMAL N/A WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 Chromium ppm ASTM D5185m >10 0 0 Nikckel ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >10 0 0 Lead ppm ASTM D5185m >10 0 0 Copper ppm ASTM D5185m >10 0				May2023	Sep2023		
Sample Date Client Info 25 Sep 2023 02 May 2023 Machine Age hrs Client Info 11826 0 Oil Age hrs Client Info 0 0 Oil Changed Client Info N/A N/A Sample Status BNORMAL NORMAL WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >50 0 0 Chromium ppm ASTM D5185m >10 0 0 Nickel ppm ASTM D5185m >3 0 -1 Titanium ppm ASTM D5185m >2 0 0 Silver ppm ASTM D5185m >2 0 0 Lead ppm ASTM D5185m >10 0 0 Copper ppm ASTM D5185m >50 0	SAMPLE INFORMA	ATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 11826 0 Oil Age hrs Client Info 0 0 Oil Changed Client Info N/A N/A Sample Status ABNORMAL NORMAL WEAR METALS method limit/base current history1 history3 Iron ppm ASTM D5185m >50 0 0 Chromium ppm ASTM D5185m >10 0 0 Nickel ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >10 0 0 Silver ppm ASTM D5185m >10 0 0 Lead ppm ASTM D5185m >10 0 0 Copper ppm ASTM D5185m	Sample Number		Client Info		KCPA006192	KCP53479	
Oil Age hrs Client Info N/A N/A N/A Sample Status WEAR METALS method limit/base current history1 history3 Iron ppm ASTM D5185m >50 0 0 Chromium ppm ASTM D5185m >50 0 0 Nickel ppm ASTM D5185m >10 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Sample Date		Client Info		25 Sep 2023	02 May 2023	
Oil Age hrs Client Info N/A N/A Sample Status Rabnormal N/A N/A WEAR METALS method limit/base current history1 history3 Iron ppm ASTM D5185m >50 0 0 Chromium ppm ASTM D5185m >10 0 0 Nickel ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Machine Age	hrs	Client Info		11826	0	
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WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 0	Oil Changed		Client Info		N/A	N/A	
Iron	Sample Status				ABNORMAL	NORMAL	
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Nickel ppm ASTM D5185m >3 0 <1 Titanium ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Iron	ppm	ASTM D5185m	>50	0	0	
Titanium ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Chromium	ppm	ASTM D5185m	>10	0	0	
Titanium ppm ASTM D5185m >3 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >10 2 <1	Nickel	ppm	ASTM D5185m	>3	0	<1	
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Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 90 50 87 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>10	0	0	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 90 50 87 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 <1	Vanadium	ppm	ASTM D5185m		0	0	
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 90 50 87 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 100 63 96 Calcium ppm ASTM D5185m 0 <1 0 Phosphorus ppm ASTM D5185m 0 3 2 Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 23500 22883 24150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m >20 1 </td <td>Cadmium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>0</td> <td>0</td> <td></td>	Cadmium	ppm	ASTM D5185m		0	0	
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Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 100 63 96 Calcium ppm ASTM D5185m 0 <1 0 Phosphorus ppm ASTM D5185m 0 3 2 Zinc ppm ASTM D5185m 23500 22883 24150 Sulfur ppm ASTM D5185m 23500 22883 24150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 0.204 0.049 ppm Water ppm ASTM D6304 >500 <th< td=""><td>Boron</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><td>0</td><td>0</td><td></td></th<>	Boron	ppm	ASTM D5185m	0	0	0	
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 100 63 96 Calcium ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	90	50	87	
Magnesium ppm ASTM D5185m 100 63 96 Calcium ppm ASTM D5185m 0 <1	Molybdenum	ppm	ASTM D5185m	0	0	0	
Calcium ppm ASTM D5185m 0 <1 0 Phosphorus ppm ASTM D5185m 0 3 2 Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 23500 22883 24150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m >25 2 1 Potassium ppm ASTM D6304 >0.05 0.204 0.049 water % ASTM D6304 >500 0.204 0.049 ppm Water ppm ASTM D6304 >500 2040 496.6	Manganese	ppm	ASTM D5185m		0	<1	
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Sulfur ppm ASTM D5185m 23500 22883 24150 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m 4 4 Potassium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 ▲ 0.204 0.049 ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6	Phosphorus	ppm	ASTM D5185m	0	3	2	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m 4 4 Potassium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 ▲ 0.204 0.049 ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6			ASTM D5185m	0	4	2	
Silicon ppm ASTM D5185m >25 2 1 Sodium ppm ASTM D5185m 4 4 Potassium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 △ 0.204 0.049 ppm Water ppm ASTM D6304 >500 △ 2040 496.6	Sulfur	ppm	ASTM D5185m	23500	22883	24150	
Sodium ppm ASTM D5185m 4 4 Potassium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 ▲ 0.204 0.049 ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 1 1 Water % ASTM D6304 >0.05 ▲ 0.204 0.049 ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6	Silicon	ppm	ASTM D5185m	>25	2	1	
Water % ASTM D6304 >0.05 ▲ 0.204 0.049 ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6	Sodium	ppm	ASTM D5185m		4	4	
ppm Water ppm ASTM D6304 >500 ▲ 2040 496.6	Potassium	ppm	ASTM D5185m	>20	1	1	
	Water	%	ASTM D6304	>0.05	<u> </u>	0.049	
FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	2040	496.6	
	FLUID DEGRADAT	ΓΙΟΝ	method	limit/base	current	history1	history2

0.28

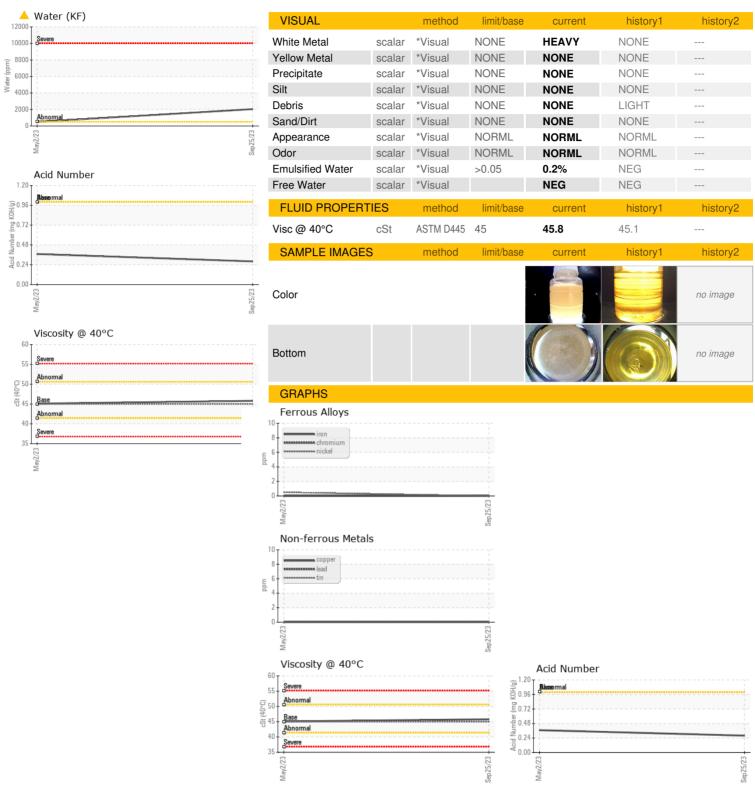
Acid Number (AN)

mg KOH/g ASTM D8045 1.0

0.37



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number **Unique Number**

: 05967038 : 10673589

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KCPA006192 Received Diagnosed

: 04 Oct 2023 Diagnostician : Jonathan Hester

: 02 Oct 2023

Test Package : IND 2 (Additional Tests: KF, PrtCount) 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.

NORTHSIDE COLLISION LIVERPOOL

Contact/Location: MARY W. - NORLIV

7422 OSWEGO RD LIVERPOOL, NY US 13090

Contact: MARY W. maryw@northsidecollision.com

T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: