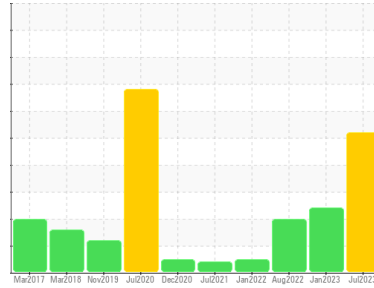




# PROBLEM SUMMARY

Sample Rating Trend



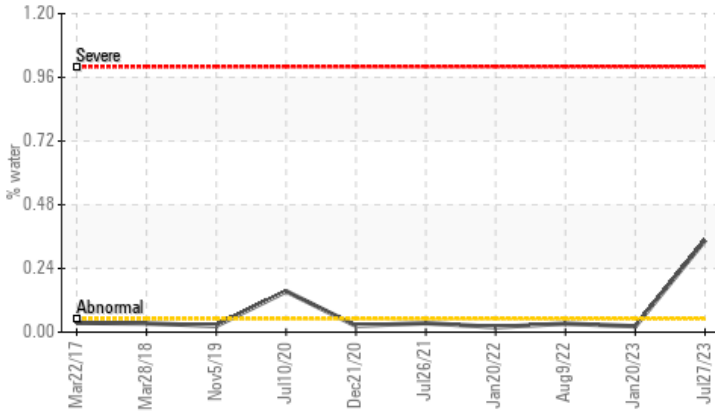
**WATER**



Machine Id  
**KAESER S K20T 4707957 (S/N 1231)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Water



## RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in 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				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ <b>0.346</b>	0.022	0.032
ppm Water	ppm	ASTM D6304	>500	▲ <b>3460</b>	227.8	328.8
Silt	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	NONE
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	VLITE	NONE
Appearance	scalar	*Visual	NORML	▲ <b>HAZY</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ <b>0.2%</b>	NEG	NEG
Free Water	scalar	*Visual		▲ <b>10.0</b>	NEG	NEG

Customer Id: BSNFAR  
 Sample No.: KCPA004470  
 Lab Number: 05922174  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

20 Jan 2023 Diag: Don Baldrige

ISO



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. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



09 Aug 2022 Diag: Jonathan Hester

ISO



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



20 Jan 2022 Diag: Don Baldrige

NORMAL



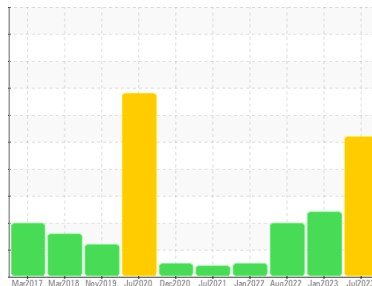
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id  
**KAESER S K20T 4707957 (S/N 1231)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**



**DIAGNOSIS**

**Recommendation**

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in 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**

Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. There is a light concentration of water present in the oil. Excessive free water present.

**Fluid Condition**

The AN level is acceptable for this fluid.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KCPA004470</b>	KCP55756	KCP51555
Sample Date	Client Info	<b>27 Jul 2023</b>	20 Jan 2023	09 Aug 2022
Machine Age	hrs	<b>23757</b>	22259	21290
Oil Age	hrs	<b>0</b>	968	501
Oil Changed	Client Info	<b>N/A</b>	Changed	Not Changd
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR METALS**

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>4</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	0	1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>8</b>	7	2
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 90	<b>47</b>	55	74
Calcium	ppm	ASTM D5185m 2	<b>&lt;1</b>	0	<1
Phosphorus	ppm	ASTM D5185m	<b>4</b>	2	2
Zinc	ppm	ASTM D5185m	<b>0</b>	0	2
Sulfur	ppm	ASTM D5185m	<b>21233</b>	19897	18309

**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	0
Sodium	ppm	ASTM D5185m	<b>6</b>	20	14
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Water	%	ASTM D6304 >0.05	<b>▲ 0.346</b>	0.022	0.032
ppm Water	ppm	ASTM D6304 >500	<b>▲ 3460</b>	227.8	328.8

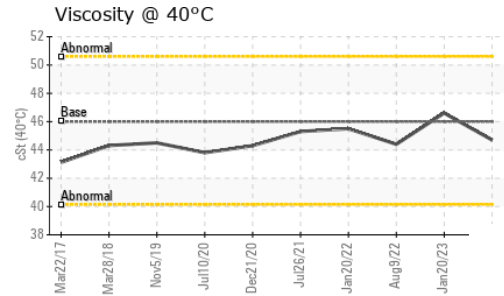
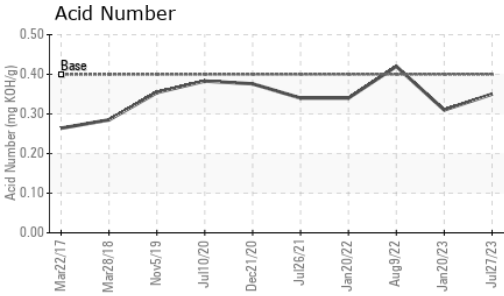
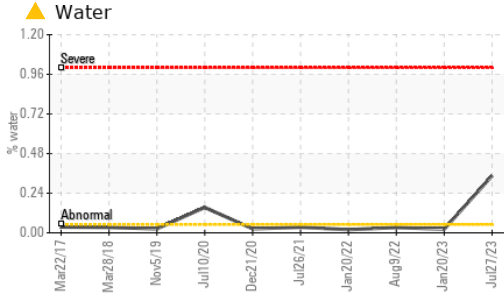
**FLUID CLEANLINESS**

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>---</b>	12219	15407
Particles >6µm	ASTM D7647 >1300	<b>---</b>	▲ 4189	▲ 3350
Particles >14µm	ASTM D7647 >80	<b>---</b>	▲ 310	▲ 378
Particles >21µm	ASTM D7647 >20	<b>---</b>	▲ 73	▲ 119
Particles >38µm	ASTM D7647 >4	<b>---</b>	▲ 6	▲ 12
Particles >71µm	ASTM D7647 >3	<b>---</b>	▲ 3	1
Oil Cleanliness	ISO 4406 (c) >--/17/13	<b>---</b>	▲ 21/19/15	▲ 21/19/16

**FLUID DEGRADATION**

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.35</b>	0.31	0.42

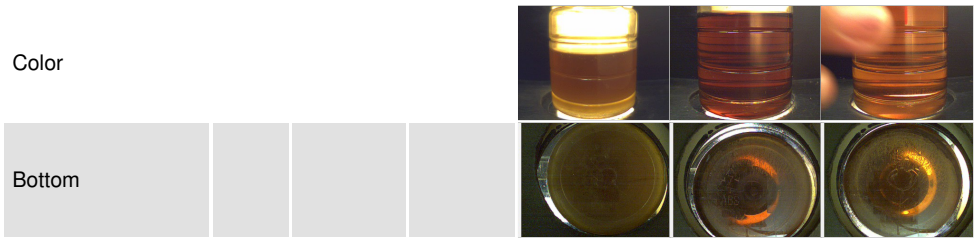
# OIL ANALYSIS REPORT



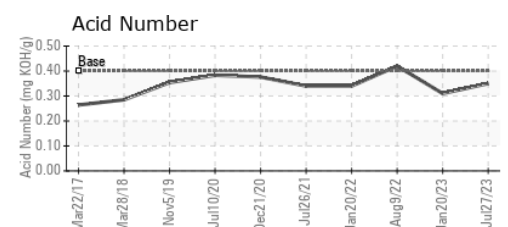
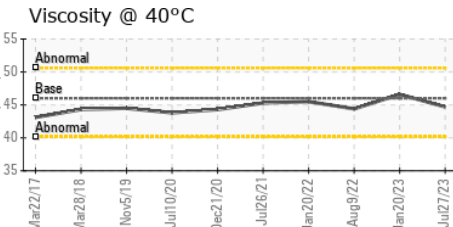
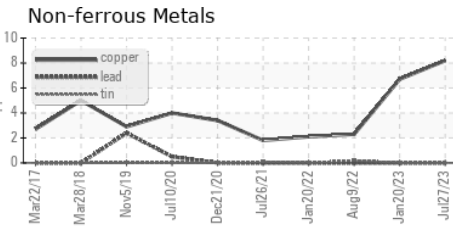
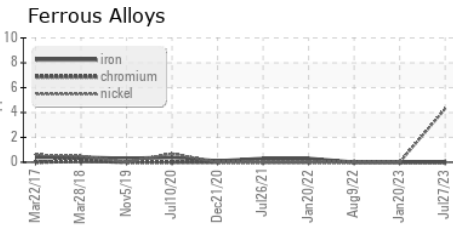
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	▲ MODER	NONE	NONE
Debris	scalar	*Visual	▲ MODER	VLITE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	▲ HAZY	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	▲ 0.2%	NEG	NEG
Free Water	scalar	*Visual	▲ 10.0	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.7	46.6

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA004470 **Received** : 11 Aug 2023  
**Lab Number** : 05922174 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10602121 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**BSN SPORTS INC**  
 13700 BENCHMARK DR  
 FARMERS BRANCH, TX  
 US 75234  
 Contact: SERVICE MANAGER

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)

T:  
F: