

# **PROBLEM SUMMARY**

Sample Rating Trend

ISO

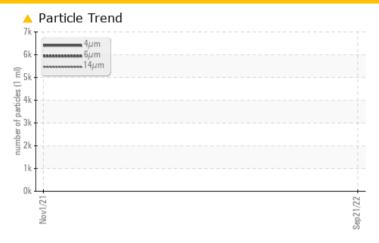
# KAESER 4738388

Component

Compressor

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

### **COMPONENT CONDITION SUMMARY**



#### 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.

PROBLEMATIC TEST	T RESULTS				
Sample Status			ATTENTION	ABNORMAL	
Particles >6µm	ASTM D7647	>1300	<b>1685</b>		
Particles >14μm	ASTM D7647	>80	<b>144</b>		
Particles >21µm	ASTM D7647	>20	<u>^</u> 22		
Oil Cleanliness	ISO 4406 (c)	>/17/13	<b>20/18/14</b>		

Customer Id: ZERSANCA Sample No.: KCP50139 Lab Number: 05648952 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 jhester@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
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.

### HISTORICAL DIAGNOSIS

### 01 Nov 2021 Diag: Angela Borella

WATER



We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.





## **OIL ANALYSIS REPORT**

Sample Rating Trend



## **KAESER 4738388**

Component

Compressor

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

### **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 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.

						,
			Nov2021	Sep2022		
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number				KCP50139	KCP39915	
Sample Date				21 Sep 2022	01 Nov 2021	
Machine Age	hrs			48439	41559	
Oil Age	hrs			3000	5000	
Oil Changed				Changed	Changed	
Sample Status				ATTENTION	ABNORMAL	
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	0	<1	
Chromium	ppm	ASTM D5185m	>10	0	0	
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	0	<1	
Lead	ppm	ASTM D5185m	>10	0	<1	
Copper	ppm	ASTM D5185m	>50	10	11	
Tin	ppm	ASTM D5185m	>10	0	0	
Antimony	ppm	ASTM D5185m			0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	0	22	
Barium	ppm	ASTM D5185m	90	0	<1	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m	100	0	<1	
Calcium	ppm	ASTM D5185m	0	0	0	
Phosphorus	ppm	ASTM D5185m	0	10	0	
Zinc	ppm	ASTM D5185m	0	24	60	
Sulfur	ppm	ASTM D5185m	23500	20564	29120	
CONTAMINANTS	;	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	2	<1	
Sodium	ppm	ASTM D5185m		0	<1	
Potassium	ppm	ASTM D5185m	>20	0	4	
Water	%	ASTM D6304	>0.05	0.015	<b>△</b> 0.241	
ppm Water	ppm	ASTM D6304	>500	159.4	<u>4</u> 2410	
FLUID CLEANLIN	IESS	method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647		6248		
Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >14µm		ASTM D7647	>80	<u> </u>		
Particles >21µm		ASTM D7647	>20	<u>^</u> 22		
Particles >38µm		ASTM D7647	>4	1		
Particles >71µm		ASTM D7647		0		
Oil Cleanliness		ISO 4406 (c)	>/17/13	<u>^</u> 20/18/14		
FLUID DEGRADA	ATION	method	limit/base	current	history 1	history 2

mg KOH/g ASTM D8045 1.0

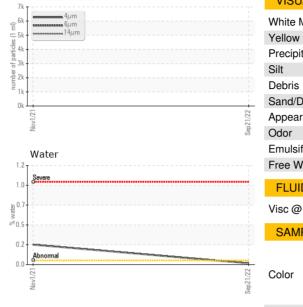
Acid Number (AN)

0.43



Particle Trend

### **OIL ANALYSIS REPORT**



		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE	
ellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	▲ MODER	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	▲ HAZY	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
ree Water	scalar	*Visual		NEG	<u>▲</u> 1.0	
FLUID PROPERT	TES	method	limit/base	current	history 1	history 2
/isc @ 40°C	cSt	ASTM D445	45	46.8	47.1	
SAMPLE IMAGES	3	method	limit/base	current	history 1	history 2
Color						no image
Bottom						no image
ottom						
GRAPHS						
GRAPHS Ferrous Alloys				Particle Cour	nt	-2
GRAPHS Ferrous Alloys			491,520	Particle Cour	nt	T <sup>21</sup>
GRAPHS Ferrous Alloys				Particle Cour	nt	2-1
GRAPHS Ferrous Alloys			491,520	Particle Cour	nt	
GRAPHS Ferrous Alloys			491,520 122,880	Particle Cour	nt	-24
GRAPHS Ferrous Alloys			491,520	Particle Cour	nt	





Laboratory Sample No. Lab Number

Unique Number : 10143491

: KCP50139 : 05648952

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

: 22 Sep 2022 : 26 Sep 2022 Diagnostician : Jonathan Hester

Acid Number

(B) 1.20 0.96 € 0.72 은 0.48 0.24 0.00

Contact: Service Manager

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

Non-ferrous Metals

Viscosity @ 40°C

T: F:

**ZERO WASTE ENERGY** 

685 LOS ESTEROS RD

SAN JOSE, CA

USA 95134