

### **PROBLEM SUMMARY**

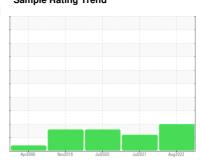
Sample Rating Trend

ISO

# KAESER SM-11 1369476 (S/N 1022)

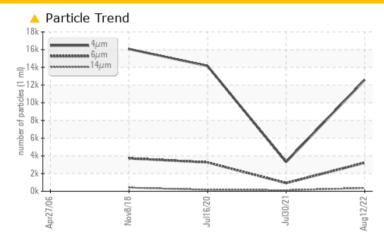
Compressor

KAESER SIGMA (OEM) S-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 RESULTS							
Sample Status			ABNORMAL	ATTENTION	ABNORMAL		
Particles >6µm	ASTM D7647	>1300	<b>△</b> 3228	923	<u>▲</u> 3258		
Particles >14µm	ASTM D7647	>80	<b>368</b>	<u> </u>	<u> </u>		
Particles >21µm	ASTM D7647	>20	<b>116</b>	<b>△</b> 34	<b>▲</b> 43		
Particles >38µm	ASTM D7647	>4	<u>^</u> 7	<u> 5</u>	<u> 5</u>		
Oil Cleanliness	ISO 4406 (c)	>/17/13	<u>^</u> 21/19/16	<u> 17/14</u>	▲ 19/15		

Customer Id: LANGAI Sample No.: KC05623090 Lab Number: 05623090 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
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

#### 30 Jul 2021 Diag: Doug Bogart





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. All component wear rates are normal. There is a moderate 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.



#### 16 Jul 2020 Diag: Don Baldridge



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. 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.



#### 08 Nov 2018 Diag: Angela Borella



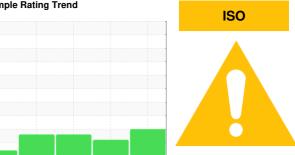
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





### **OIL ANALYSIS REPORT**

Sample Rating Trend



## KAESER SM-11 1369476 (S/N 1022)

Compressor

KAESER SIGMA (OEM) S-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 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.

		Apr2006	Nov2018	Jul2020 Jul2021	Aug2022	
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number				KC05623090	KC05322126	KC05037349
Sample Date				12 Aug 2022	30 Jul 2021	16 Jul 2020
Machine Age	hrs			88616	81320	78567
Oil Age	hrs			0	5001	3866
Oil Changed				Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	<1	0	1
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	3	2	5
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		0	14	0
Barium	ppm	ASTM D5185m	90	<1	0	<1
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	90	4	16	3
Calcium	ppm	ASTM D5185m	2	0	0	0
Phosphorus	ppm	ASTM D5185m		0	4	4
Zinc	ppm	ASTM D5185m		4	0	0
CONTAMINANTS	5	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	0	0	<1
Sodium	ppm	ASTM D5185m		2	5	2
Potassium	ppm	ASTM D5185m	>20	0	0	12
Water	%	ASTM D6304	>0.05	0.015	0.018	0.023
ppm Water	ppm	ASTM D6304	>500	152.3	183.2	232.8
FLUID CLEANLIN	IESS	method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647		12577	3306	14154
Particles >6µm		ASTM D7647	>1300	<u> </u>	923	<u>▲</u> 3258
Particles >14µm		ASTM D7647	>80	<b>▲ 368</b>	<u> </u>	<u> </u>
Particles >21µm		ASTM D7647	>20	<u> </u>	<b>▲</b> 34	<b>4</b> 3
Particles >38µm		ASTM D7647	>4	<u>^</u> 7	<u></u> 5	<u> 5</u>
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>/17/13	<b>2</b> 1/19/16	<b>△</b> 17/14	<b>▲</b> 19/15
FLUID DEGRADA	ATION	method	limit/base	current	history 1	history 2
Acid Number (AN)	I/OLI/-	ACTM DOOM	0.4	0.33	N 312	n 298

Acid Number (AN)

mg KOH/g ASTM D8045 0.4

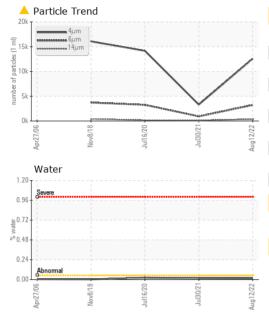
0.312

0.33

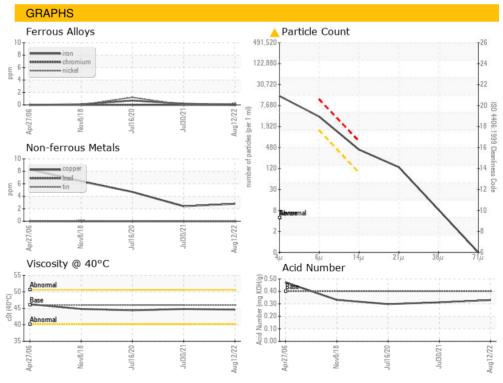
0.298



### **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history 1	history 2
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	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.6	44.8	44.4
SAMPLE IMAGES		method	limit/base	current	history 1	history 2
Color						
Bottom					(Ca)	30 m







Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10102597

: KC05623090 : 05623090 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Aug 2022 Diagnosed

: 23 Aug 2022 Diagnostician : Jonathan Hester LANIER PARK HOSPITAL 675 WHITE SULPHUR RD

GAINESVILLE, GA USA 30501

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: