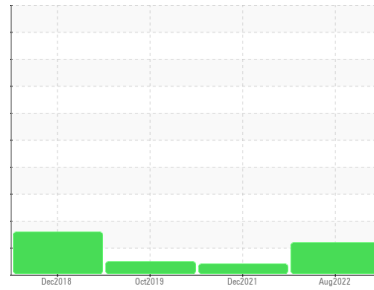


PROBLEM SUMMARY

Sample Rating Trend



ISO



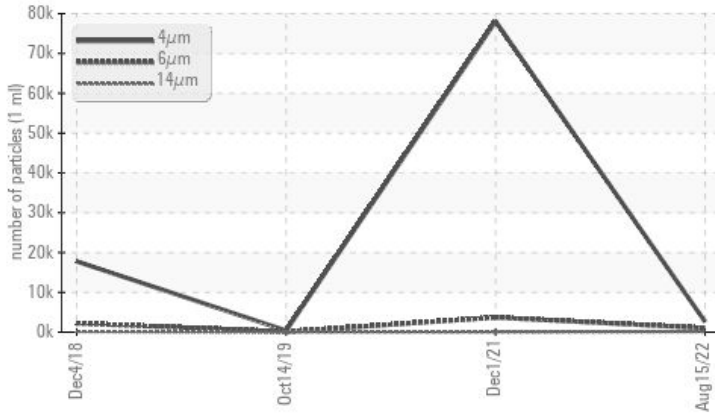
Machine Id
KAESER CSD 100 4878914 - MAHLE (S/N 1154)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	NORMAL
Particles >14µm	ASTM D7647	>80	▲ 118	41	19
Particles >21µm	ASTM D7647	>20	▲ 34	6	5
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 19/17/14	▲ 19/13	14/11

Customer Id: KAEFRE
Sample No.: KCP48329
Lab Number: 05638599
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

01 Dec 2021 Diag: Angela Borella

ISO



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 silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



14 Oct 2019 Diag: Jonathan Hester

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



04 Dec 2018 Diag: Doug Bogart

ISO



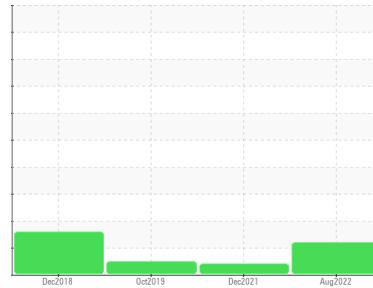
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
KAESER CSD 100 4878914 - MAHLE (S/N 1154)

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



DIAGNOSIS

▲ Recommendation

The 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 silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP48329	KCP36873	KC70754
Sample Date			15 Aug 2022	01 Dec 2021	14 Oct 2019
Machine Age	hrs		56987	50935	36664
Oil Age	hrs		0	0	4556
Oil Changed			Not Changed	Changed	Not Changed
Sample Status			ATTENTION	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	0	7	0
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	1	0	<1
Lead	ppm	ASTM D5185m >10	<1	0	0
Copper	ppm	ASTM D5185m >50	9	3	5
Tin	ppm	ASTM D5185m >10	<1	0	2
Antimony	ppm	ASTM D5185m	---	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 90	<1	<1	0
Calcium	ppm	ASTM D5185m 2	0	0	0
Phosphorus	ppm	ASTM D5185m	9	69	0
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	13893	4118	5211

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	1	0	<1
Sodium	ppm	ASTM D5185m	0	1	<1
Potassium	ppm	ASTM D5185m >20	1	0	<1
Water	%	ASTM D6304 >0.05	0.003	0.012	0.006
ppm Water	ppm	ASTM D6304 >500	32.3	122.6	67.8

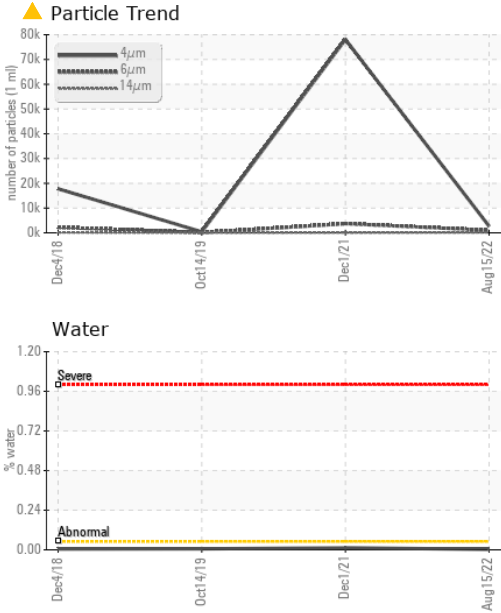
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		2662	78069	393
Particles >6µm	ASTM D7647 >1300		1027	▲ 3691	130
Particles >14µm	ASTM D7647 >80		▲ 118	41	19
Particles >21µm	ASTM D7647 >20		▲ 34	6	5
Particles >38µm	ASTM D7647 >4		4	0	0
Particles >71µm	ASTM D7647 >3		1	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13		▲ 19/17/14	▲ 19/13	14/11

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.40	0.176	0.206

OIL ANALYSIS REPORT



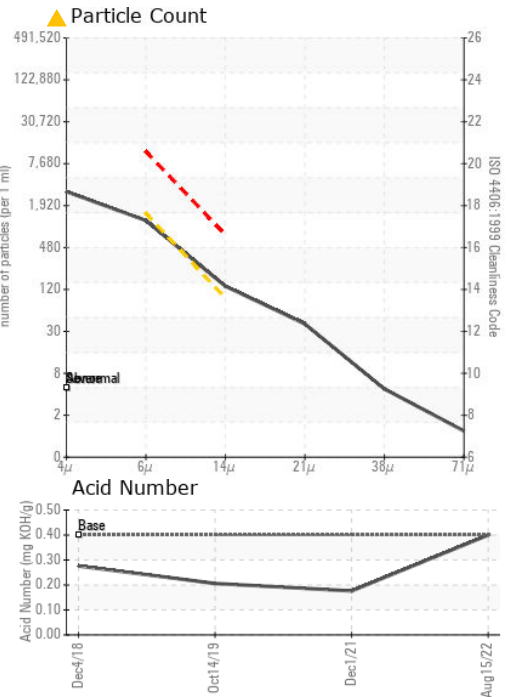
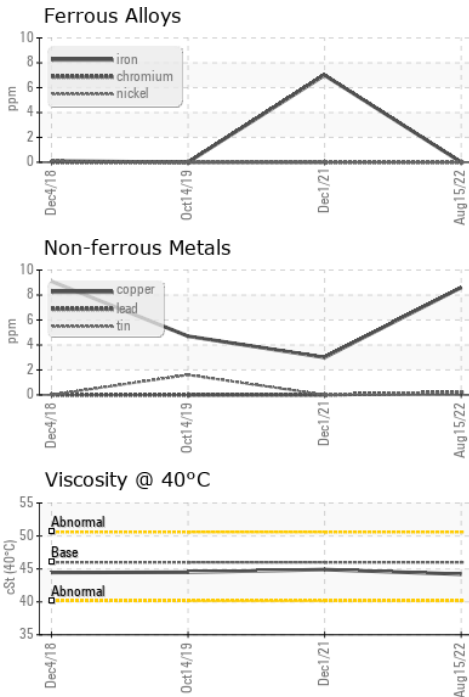
PARAMETER	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

PARAMETER	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.9	44.5

PARAMETER	method	limit/base	current	history 1	history 2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP48329 **Received** : 12 Sep 2022
Lab Number : 05638599 **Diagnosed** : 14 Sep 2022
Unique Number : 10128129 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

KAESER COMPRESSOR
 511 SIGMA DRIVE
 FREDERICKSBURG, VA
 USA 22408
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 warranty.us@kaeser.com
 T: (540)898-5500
 F: (540)898-5520

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)