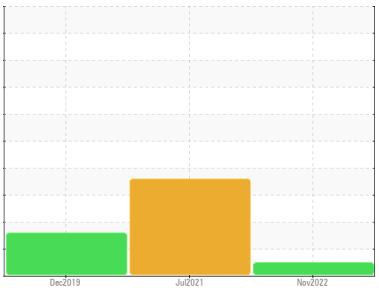
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
KAESER AIRTOWER 7.5C 6693916 (S/N 1925)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCP53361**	KCP41517	KCP20267
Sample Date		Client Info		**30 Nov 2022**	28 Jul 2021	03 Dec 2019
Machine Age	hrs	Client Info		**4905**	3735	1453
Oil Age	hrs	Client Info		**1170**	2300	1452
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**<1**	1	2
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>3	**<1**	1	<1
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	0	1
Lead	ppm	ASTM D5185m	>10	**0**	<1	2
Copper	ppm	ASTM D5185m	>50	**14**	28	17
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
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	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	<1
Barium	ppm	ASTM D5185m	90	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	0	**0**	0	1
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m	100	**16**	7	36
Calcium	ppm	ASTM D5185m	0	**0**	0	<1
Phosphorus	ppm	ASTM D5185m	0	**38**	4	2
Zinc	ppm	ASTM D5185m	0	**28**	2	12
Sulfur	ppm	ASTM D5185m	23500	**22242**	16314	3978

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	<1	3
Sodium	ppm	ASTM D5185m		**7**	<1	16
Potassium	ppm	ASTM D5185m	>20	**0**	<1	3
Water	%	ASTM D6304	>0.05	**0.010**	▲ 0.388	0.028
ppm Water	ppm	ASTM D6304	>500	**106.9**	▲ 3880	288.0

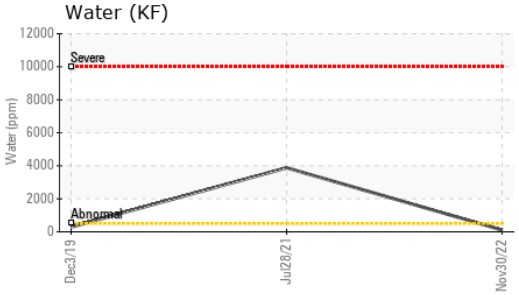
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**4182**	---	64918
Particles >6µm		ASTM D7647	>1300	**1267**	---	▲ 15548
Particles >14µm		ASTM D7647	>80	**52**	---	▲ 723
Particles >21µm		ASTM D7647	>20	**9**	---	▲ 149
Particles >38µm		ASTM D7647	>4	**1**	---	▲ 12
Particles >71µm		ASTM D7647	>3	**0**	---	1
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**19/17/13**	---	▲ 21/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.32**	0.290	0.336

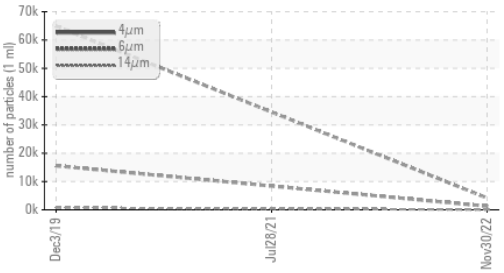
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

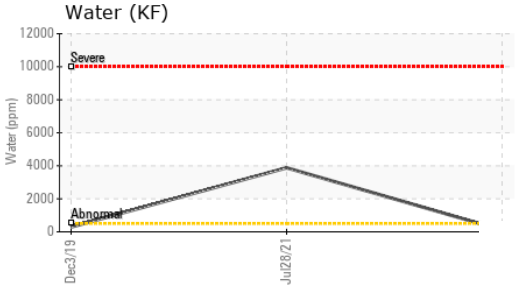
Water (KF)



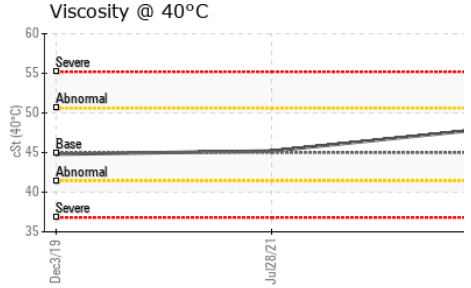
Particle Trend



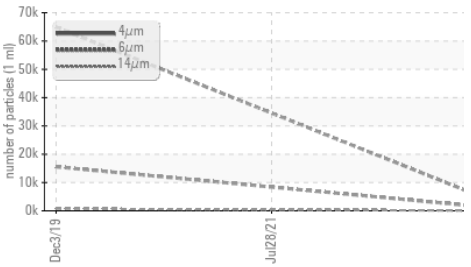
Water (KF)



Viscosity @ 40°C

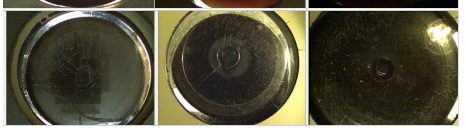


Particle Trend



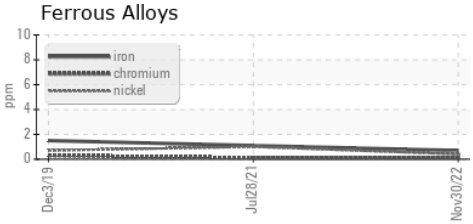
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	▲ 1.0	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**48.0**	45.2	44.8

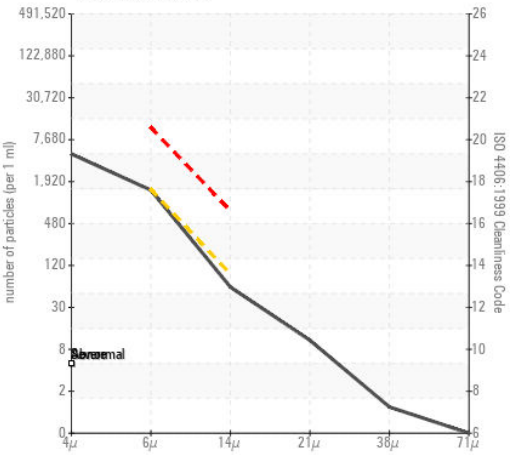
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

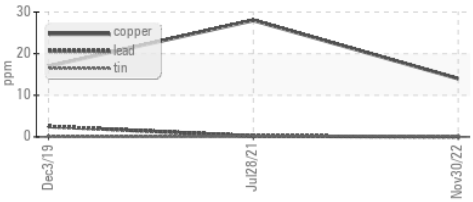
Ferrous Alloys



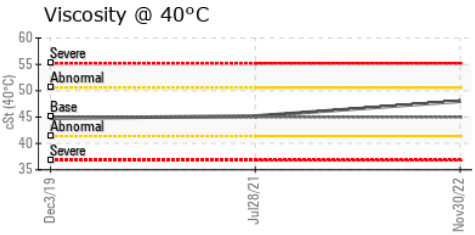
Particle Count



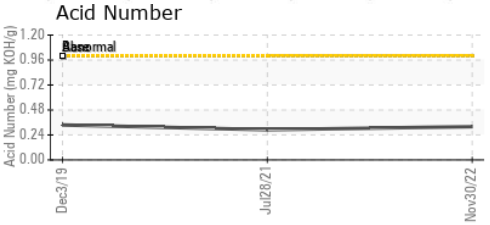
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP53361 **Recieved** : 06 Dec 2022
Lab Number : 05710454 **Diagnosed** : 09 Dec 2022
Unique Number : 10245029 **Diagnostician** : Don Baldridge
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)

MARINE SYSTEM DESIGN
106 STATON CT
GREENVILLE, NC
US 27834
Contact: PAUL
paul@marinesystemsdesign.com
T:
F: