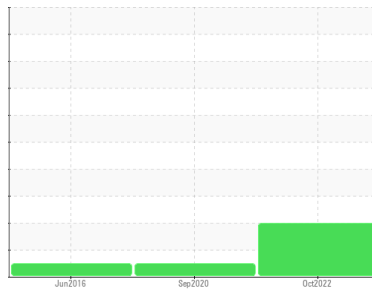




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
KAESER CS 76 1438896 (S/N 6100920)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

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 oil viscosity is lower than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCP46937D	KCP29021	KCP58561
Sample Date	Client Info			19 Oct 2022	07 Sep 2020	10 Jun 2016
Machine Age	hrs	Client Info		91233	87779	117860
Oil Age	hrs	Client Info		0	0	9000
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	<1
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>50	0	9	16
Tin	ppm	ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m		---	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

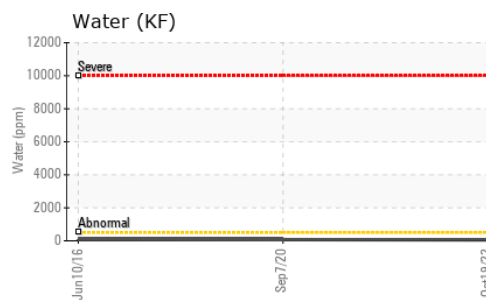
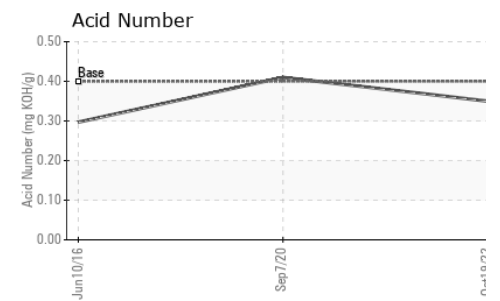
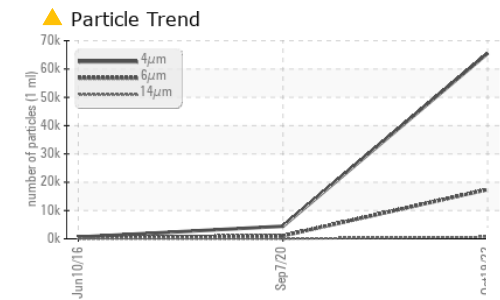
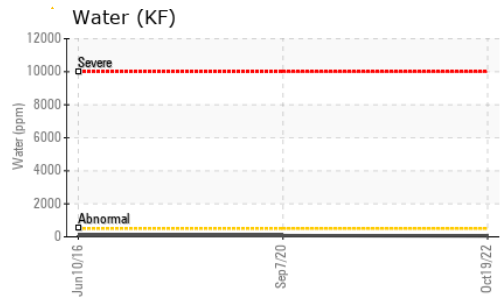
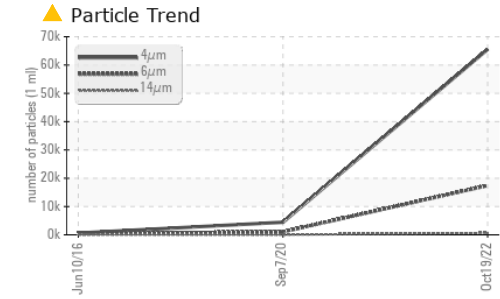
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	5	0
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	90	<1	<1	0
Calcium	ppm	ASTM D5185m	2	0	0	0
Phosphorus	ppm	ASTM D5185m		51	146	12
Zinc	ppm	ASTM D5185m		0	0	18
Sulfur	ppm	ASTM D5185m		8	5114	15634

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	<1	<1
Sodium	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Water	%	ASTM D6304	>0.05	0.005	0.007	0.009
ppm Water	ppm	ASTM D6304	>500	53.9	73.2	90

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		65534	4449	615
Particles >6µm		ASTM D7647	>1300	▲ 17426	1063	335
Particles >14µm		ASTM D7647	>80	▲ 644	47	57
Particles >21µm		ASTM D7647	>20	▲ 89	9	19
Particles >38µm		ASTM D7647	>4	2	0	2
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ 23/21/17	17/13	16/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.35	0.410	0.297

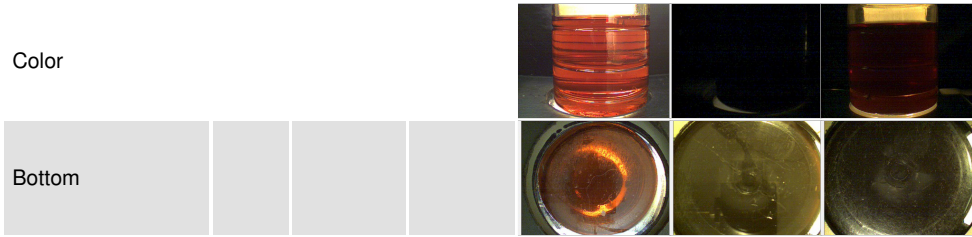
OIL ANALYSIS REPORT



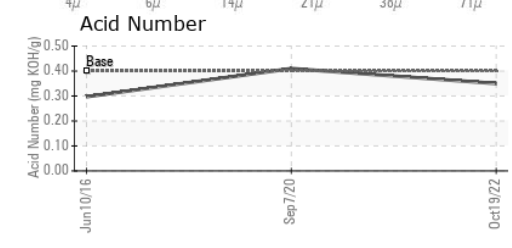
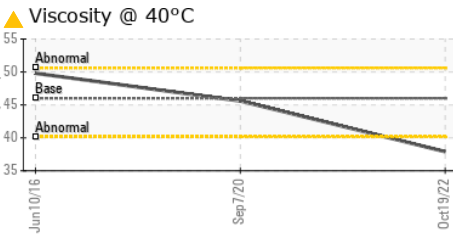
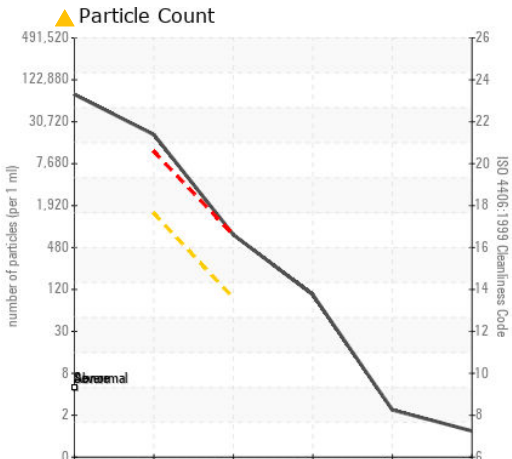
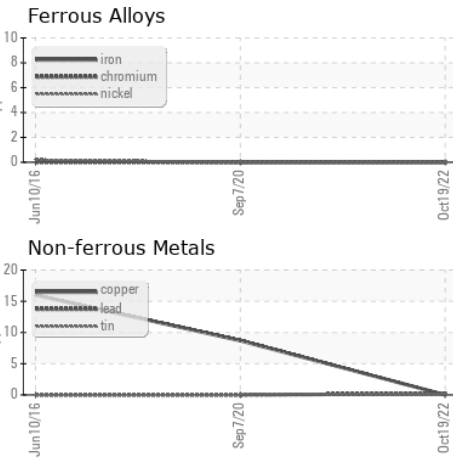
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46 ▲ 37.9	45.6	49.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP46937D **Received** : 04 Nov 2022
Lab Number : 05685746 **Tested** : 07 Nov 2022
Unique Number : 10205318 **Diagnosed** : 10 Nov 2022 - Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

GRAPHIC PACKAGING
 5853 E PONCE DE LEON AVE
 STONE MOUNTAIN, GA
 US 30083
 Contact: STAFTON BYNOE
 stafton.bynoe@graphicpkg.com

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)