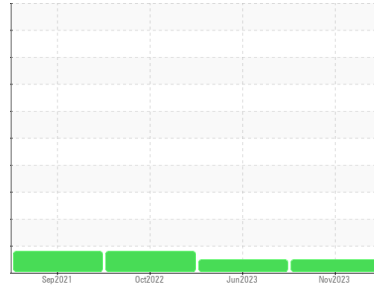




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
6249597 (S/N 1001)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) FG-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			KCPA007119	KCPA003924	KCP49305
Sample Date	Client Info			06 Nov 2023	08 Jun 2023	06 Oct 2022
Machine Age	hrs Client Info			21188	19471	15508
Oil Age	hrs Client Info			0	0	2800
Oil Changed	Client Info			N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	15	11	11
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	9	3	▲ 14
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	<1	1
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

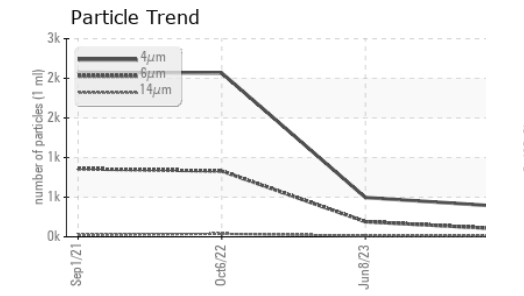
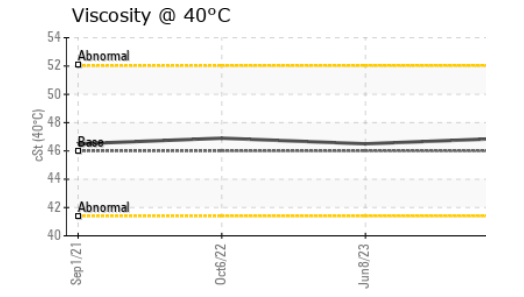
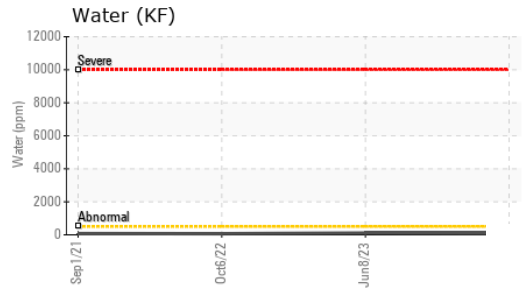
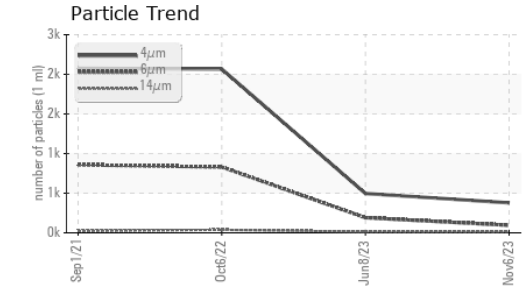
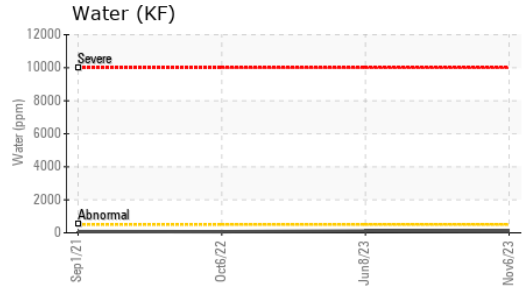
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		0	1	5
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m	500	384	442	473
Zinc	ppm	ASTM D5185m		315	93	211
Sulfur	ppm	ASTM D5185m		1688	1777	1843

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	<1
Sodium	ppm	ASTM D5185m		2	2	2
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304	>0.05	0.008	0.011	0.006
ppm Water	ppm	ASTM D6304	>500	87	114.7	67.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		378	496	2067
Particles >6µm		ASTM D7647	>1300	95	191	830
Particles >14µm		ASTM D7647	>80	12	13	38
Particles >21µm		ASTM D7647	>20	5	3	8
Particles >38µm		ASTM D7647	>4	0	1	0
Particles >71µm		ASTM D7647	>3	0	1	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	16/14/11	16/15/11	18/17/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.5	0.78	1.42	1.39

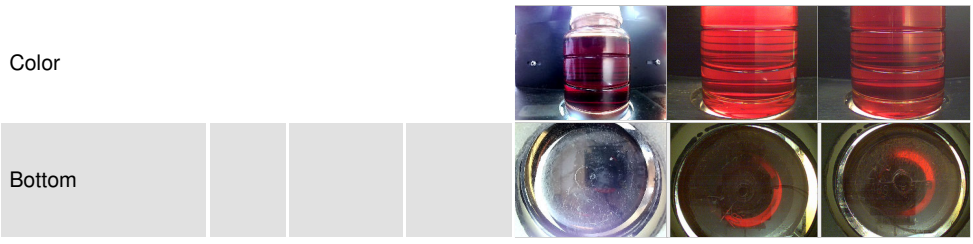
OIL ANALYSIS REPORT



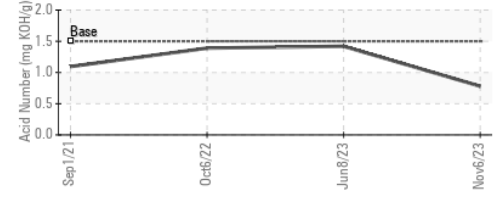
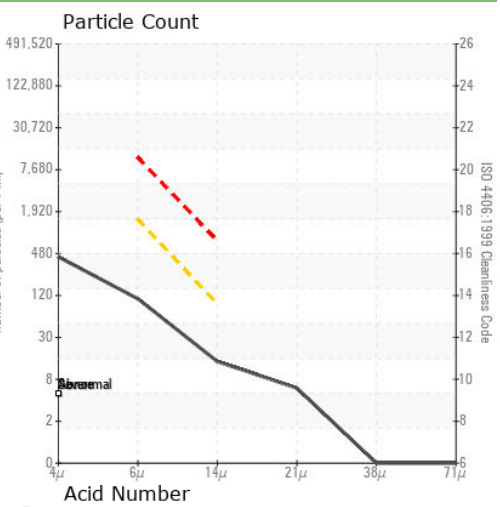
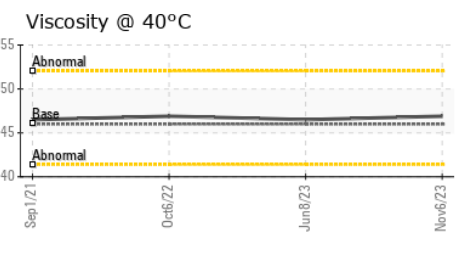
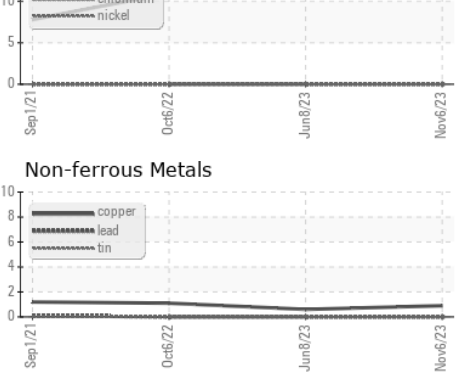
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46.9	46.5	46.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA007119 **Received** : 24 Nov 2023
Lab Number : 06017346 **Diagnosed** : 29 Nov 2023
Unique Number : 10756490 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

RUSSIAN RIVER BREWING
 1700 AMERICAN WAY
 WINDSOR, CA
 US 95492
 Contact: J CHASE
 jchase@rrbeer.com
 T:
 F:

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)