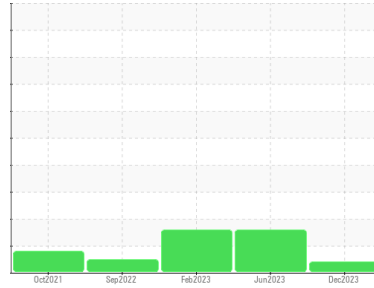




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
6903769 (S/N 1076)

Component
Compressor

Fluid
KAESER SIGMA (OEM) M-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 no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KCPA009817	KCPA005420	KCP55914
Sample Date	Client Info			22 Dec 2023	28 Jun 2023	19 Feb 2023
Machine Age	hrs Client Info			25490	21543	18512
Oil Age	hrs Client Info			0	0	2000
Oil Changed	Client Info			N/A	N/A	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	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	0	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	8	8	8
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

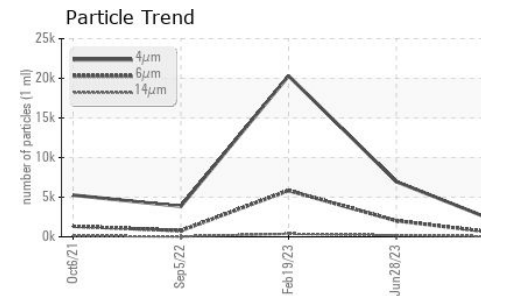
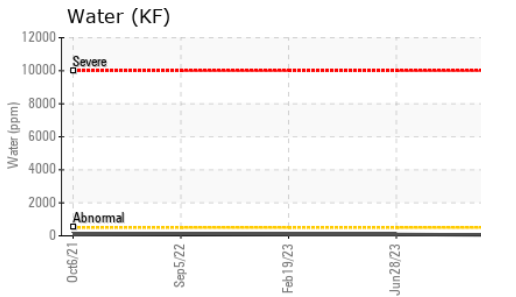
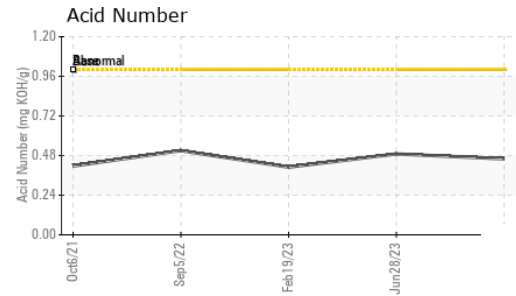
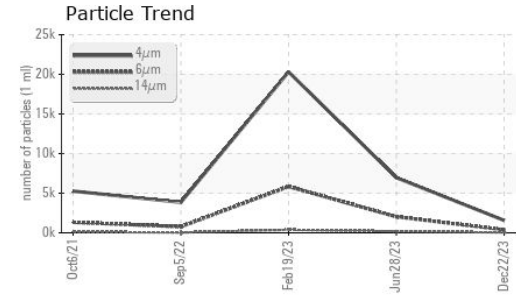
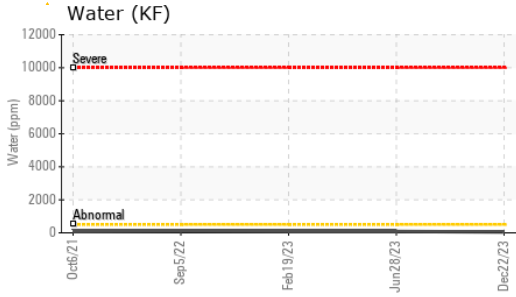
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	100	0	0	<1
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	0	0	3	5
Zinc	ppm	ASTM D5185m	0	0	0	0
Sulfur	ppm	ASTM D5185m	23500	14795	20677	19274

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	0	1
Sodium	ppm	ASTM D5185m		<1	<1	0
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Water	%	ASTM D6304	>0.05	0.004	0.008	0.008
ppm Water	ppm	ASTM D6304	>500	49	84.0	84.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		1568	6962	20307
Particles >6µm		ASTM D7647	>1300	376	▲ 2024	▲ 5847
Particles >14µm		ASTM D7647	>80	33	▲ 183	▲ 382
Particles >21µm		ASTM D7647	>20	11	▲ 61	▲ 110
Particles >38µm		ASTM D7647	>4	0	4	5
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	18/16/12	▲ 20/18/15	▲ 22/20/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.46	0.49	0.41

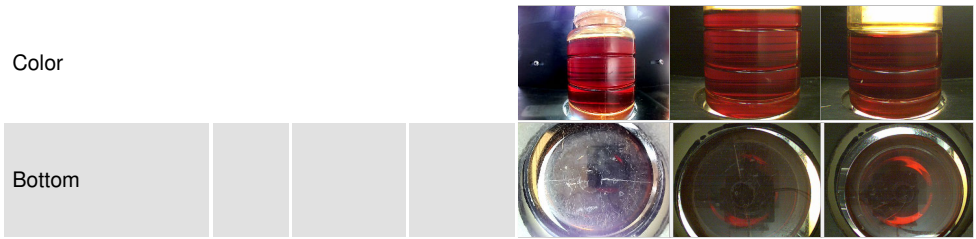
OIL ANALYSIS REPORT



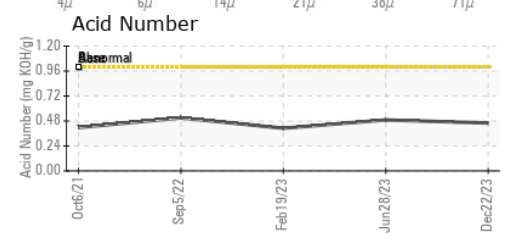
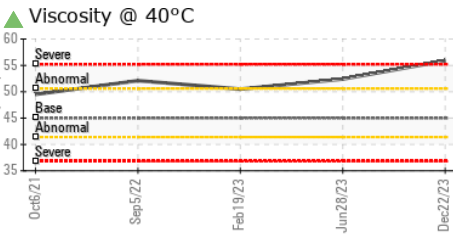
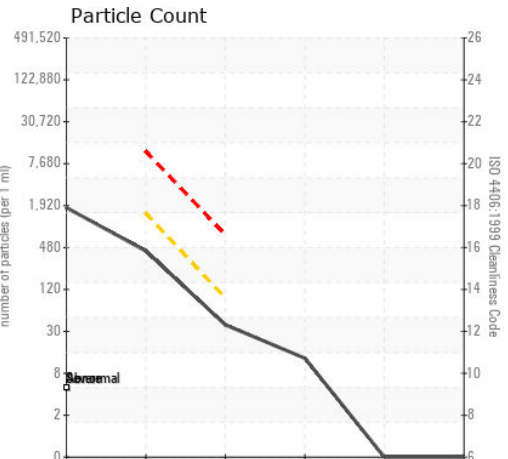
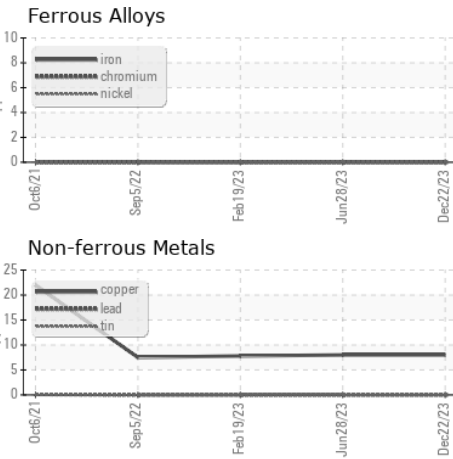
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45	▲ 55.89	52.4	50.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA009817 **Received** : 08 Jan 2024
Lab Number : 06054938 **Diagnosed** : 11 Jan 2024
Unique Number : 10820887 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

BIOMETRICS NLE
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 SANTA CLARA, CA
 US 95054
 Contact: T FORTUNATO
 TFORTUNATO@BIOMETRICS.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)