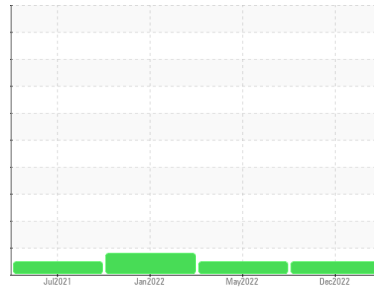




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
KAESER 3462043 (S/N 1053)

Component
Compressor

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

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 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			KCP52665	KCP50988	KCP40891
Sample Date	Client Info			06 Dec 2022	26 May 2022	31 Jan 2022
Machine Age	hrs	Client Info		3042	2861	2800
Oil Age	hrs	Client Info		181	258	196
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	<1	<1
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	<1	1
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>50	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	<1
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

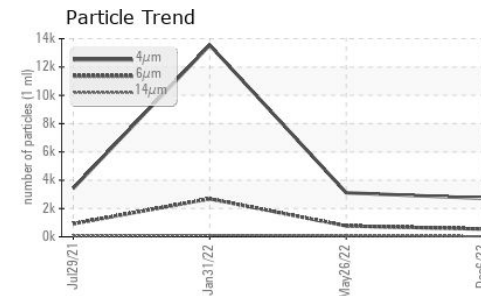
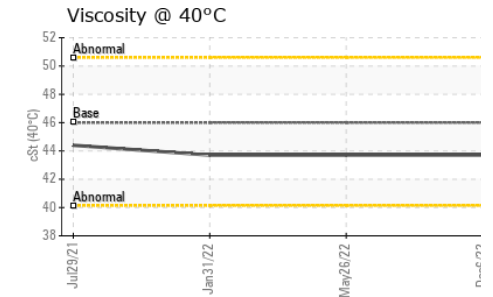
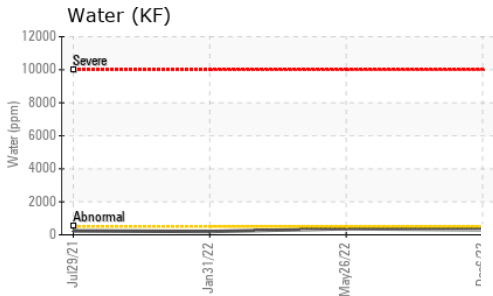
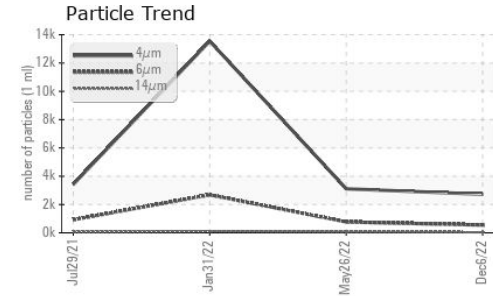
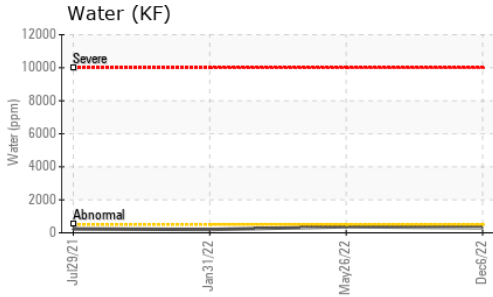
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	11	0	4
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	90	66	61	72
Calcium	ppm	ASTM D5185m	2	<1	<1	0
Phosphorus	ppm	ASTM D5185m		26	4	0
Zinc	ppm	ASTM D5185m		9	6	4
Sulfur	ppm	ASTM D5185m		21462	19718	16347

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	<1	<1
Sodium	ppm	ASTM D5185m		17	13	13
Potassium	ppm	ASTM D5185m	>20	1	2	2
Water	%	ASTM D6304	>0.05	0.030	0.036	0.020
ppm Water	ppm	ASTM D6304	>500	309.5	368.9	200.5

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		2722	3112	13543
Particles >6µm		ASTM D7647	>1300	551	768	▲ 2685
Particles >14µm		ASTM D7647	>80	37	69	● 105
Particles >21µm		ASTM D7647	>20	16	21	23
Particles >38µm		ASTM D7647	>4	7	1	2
Particles >71µm		ASTM D7647	>3	3	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	19/16/12	19/17/13	▲ 19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.36	0.34	0.34

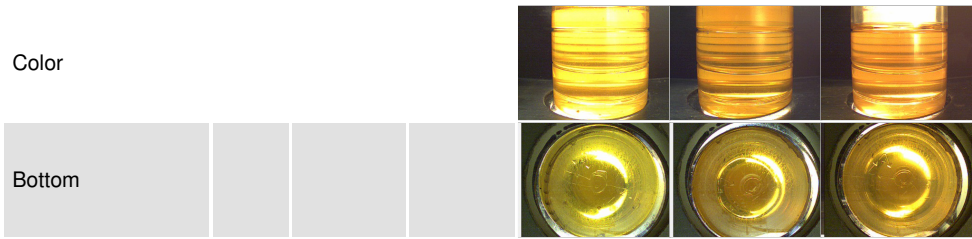
OIL ANALYSIS REPORT



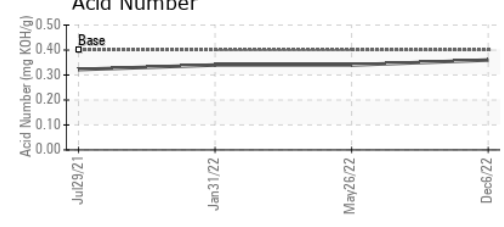
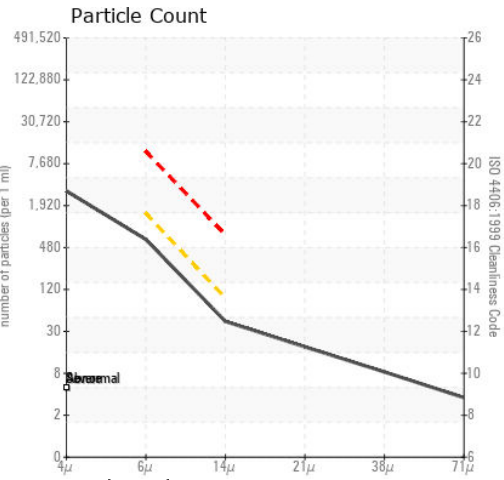
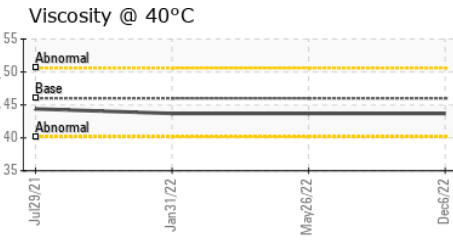
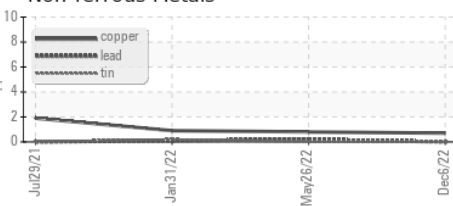
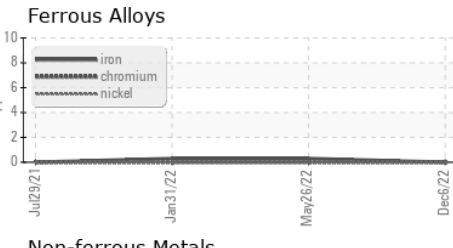
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	43.7	43.7	43.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP52665 **Received** : 27 Jan 2023
Lab Number : 05752915 **Tested** : 30 Jan 2023
Unique Number : 10312519 **Diagnosed** : 31 Jan 2023 - Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

LOCKHEED MARTIN
 6801 ROSELL ST
 FORT BENNING, GA
 US 31905
 Contact: FRANK SOLARES
 frank.solares@onevaliant.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)