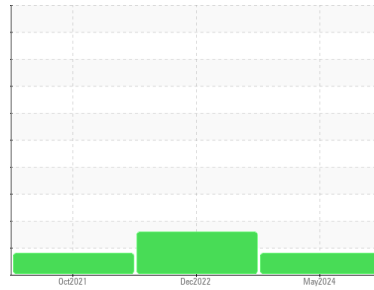




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

KAESER 7711591

Component

Compressor

Fluid

KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present 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			KCPA014483	KCP40467	KCP39266
Sample Date	Client Info			13 May 2024	27 Dec 2022	19 Oct 2021
Machine Age	hrs	Client Info		16291	9540	3258
Oil Age	hrs	Client Info		6751	6283	0
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	2
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	<1	<1
Copper	ppm	ASTM D5185m	>50	13	12	5
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

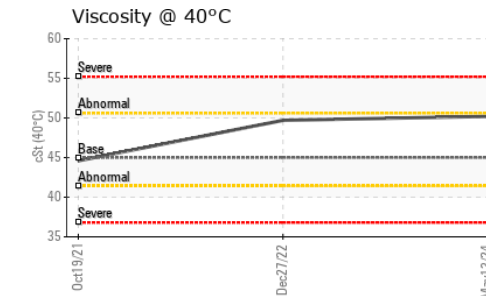
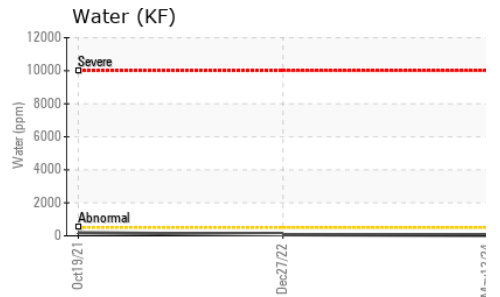
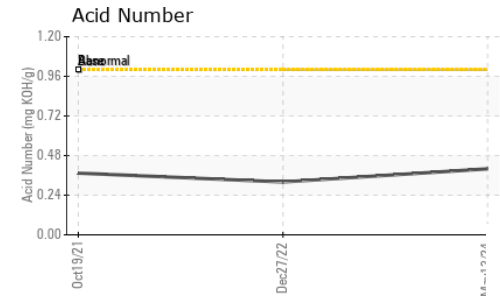
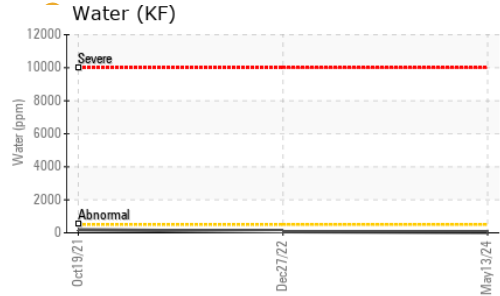
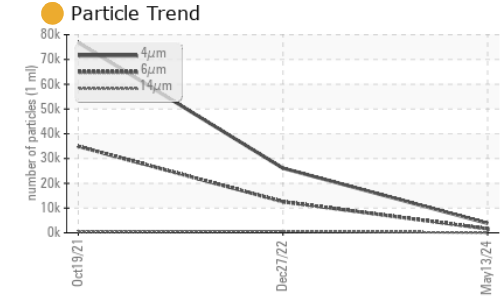
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	90	0	0	6
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	100	0	0	39
Calcium	ppm	ASTM D5185m	0	0	0	0
Phosphorus	ppm	ASTM D5185m	0	0	0	4
Zinc	ppm	ASTM D5185m	0	0	0	0
Sulfur	ppm	ASTM D5185m	23500	17894	20656	15515

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	15	0
Sodium	ppm	ASTM D5185m		1	<1	7
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304	>0.05	0.002	0.007	0.018
ppm Water	ppm	ASTM D6304	>500	21	71.1	186.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		3828	26098	76817
Particles >6µm		ASTM D7647	>1300	1618	▲ 12554	▲ 34929
Particles >14µm		ASTM D7647	>80	55	▲ 637	▲ 415
Particles >21µm		ASTM D7647	>20	10	▲ 117	18
Particles >38µm		ASTM D7647	>4	0	4	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	19/18/13	▲ 22/21/16	▲ 22/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.40	0.32	0.374

OIL ANALYSIS REPORT

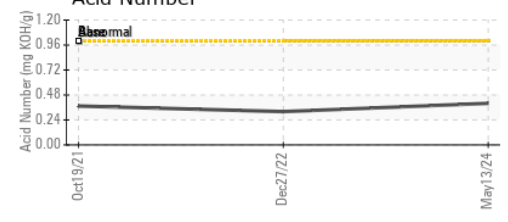
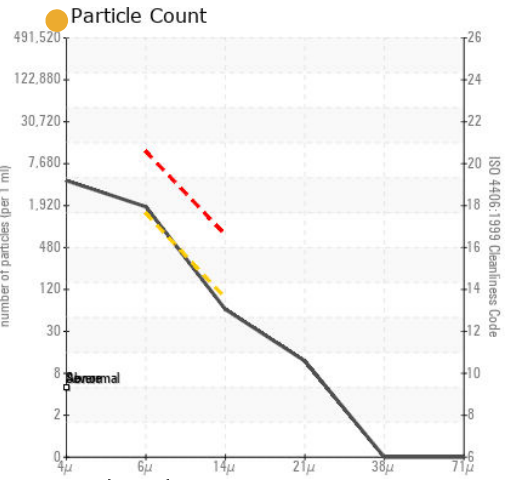
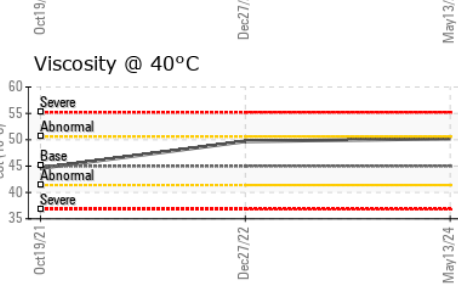
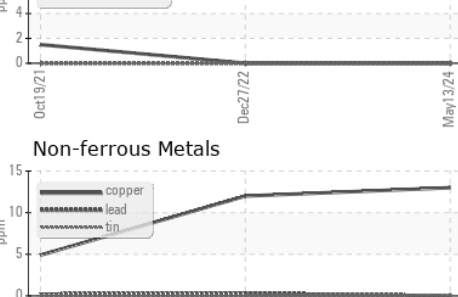


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45	50.2	49.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA014483
Lab Number : 06205402
Unique Number : 11072863
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 10 Jun 2024
Tested : 13 Jun 2024
Diagnosed : 13 Jun 2024 - Don Baldrige

PENSKE
 3009 EVERGREEN AVE
 WEST SACRAMENTO, CA
 US 95691
 Contact: TIMOTHY WALLINDER
 timothy.wallinder@penske.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)