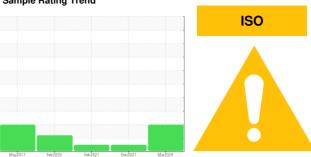


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

KAESER SM 11 1774935 (S/N 1088)

Compressor

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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 a high amount of particulates present in the oil.

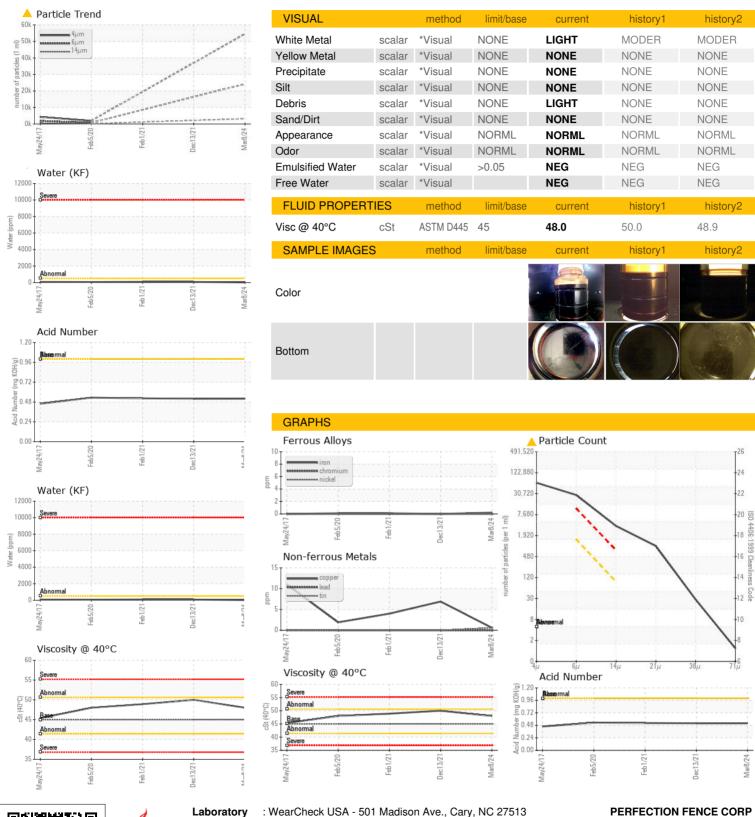
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

		May2017	Feb2020	Feb2021 Dec2021	Mar2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA003412	KCP35418	KCP34607
Sample Date		Client Info		08 Mar 2024	13 Dec 2021	01 Feb 2021
Machine Age	hrs	Client Info		21060	18928	17305
Oil Age	hrs	Client Info		0	2113	1301
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	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	<1	0
Aluminum	ppm	ASTM D5185m	>10	<1	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	7	4
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	0	<1	11
Barium	ppm	ASTM D5185m	90	1	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	100	8	0	2
Calcium	ppm	ASTM D5185m	0	0	0	0
-	ppm	ASTM D5185m ASTM D5185m	0	0	0	0 2
Calcium						
Calcium Phosphorus	ppm	ASTM D5185m	0	0	0	2
Calcium Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	0	0	0	2
Calcium Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 23500	0 0 22259	0 0 15787	2 0 17513
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	0 0 23500 limit/base	0 0 22259 current	0 0 15787 history1	2 0 17513 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 23500 limit/base	0 0 22259 current <1	0 0 15787 history1 <1	2 0 17513 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 0 23500 limit/base >25	0 0 22259 current <1 2	0 0 15787 history1 <1 <1	2 0 17513 history2 1 2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 23500 limit/base >25 >20	0 0 22259 current <1 2 <1	0 0 15787 history1 <1 <1 0	2 0 17513 history2 1 2 <1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	0 0 23500 limit/base >25 >20 >0.05	0 0 22259 current <1 2 <1 0.003	0 0 15787 history1 <1 <1 0 0.007	2 0 17513 history2 1 2 <1 0.009
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	0 0 23500 limit/base >25 >20 >0.05 >500	0 0 22259 current <1 2 <1 0.003 31	0 0 15787 history1 <1 <1 0 0.007 79.2	2 0 17513 history2 1 2 <1 0.009 92.2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	0 0 23500 limit/base >25 >20 >0.05 >500	0 0 22259 current <1 2 <1 0.003 31 current	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0 0 22259 current <1 2 <1 0.003 31 current 54530	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0 0 22259 current <1 2 <1 0.003 31 current 54530 △ 24236	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80	0 0 22259 current <1 2 <1 0.003 31 current 54530 △ 24236 △ 3156	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	0 0 22259 current <1 2 <1 0.003 31 current 54530 △ 24236 △ 3156 △ 843	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	0 0 22259 current <1 2 <1 0.003 31 current 54530 △ 24236 △ 3156 △ 843 △ 25	0 0 15787 history1 <1 <1 0 0.007 79.2 history1	2 0 17513 history2 1 2 <1 0.009 92.2 history2



OIL ANALYSIS REPORT







Certificate 12367

Sample No.

Laboratory

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06140647

Unique Number : 10965455

: KCPA003412 Received **Tested**

Diagnosed Test Package : IND 2 (Additional Tests: KF, PrtCount)

: 05 Apr 2024

: 08 Apr 2024

: 09 Apr 2024 - Don Baldridge

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) 635 PLAIN ST

US 02050

Contact:

T:

F:

MARSHFIELD, MA