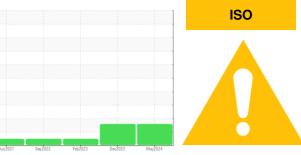


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

1118574 (S/N 1065) 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 high amount of particulates present in the oil.

Fluid Condition

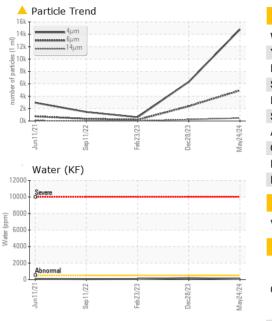
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

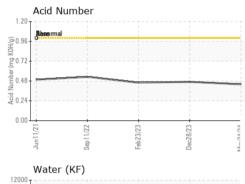
	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA013736	KCPA009927	KCP54454
Sample Date		Client Info		24 May 2024	28 Dec 2023	23 Feb 2023
Machine Age	hrs	Client Info		207019	203471	197982
Oil Age	hrs	Client Info		0	0	3700
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	0
Chromium	ppm	ASTM D5185m	>10	0	<1	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	2	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	6	2	2
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	1	<1	1
Calcium	ppm	ASTM D5185m	0	0	<1	0
Phosphorus	ppm	ASTM D5185m	0	1	0	0
Zinc	ppm	ASTM D5185m	0	4	0	0
-	ppm ppm		0 23500	4 20032	0 19498	0 18726
-	ppm			-		-
Sulfur	ppm	ASTM D5185m	23500	20032	19498	18726
Sulfur CONTAMINANTS	ppm	ASTM D5185m method	23500 limit/base	20032 current	19498 history1	18726 history2
Sulfur CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	23500 limit/base	20032 current <1	19498 history1 0	18726 history2 <1
Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	23500 limit/base >25 >20 >0.05	20032 current <1 2 0 0.007	19498 history1 0 0 0 0 0.018	18726 history2 <1 0 0 0 0.007
Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	23500 limit/base >25 >20 >0.05	20032 current <1 2 0	19498 history1 0 0 0	18726 history2 <1 0 0
Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	23500 limit/base >25 >20 >0.05	20032 current <1 2 0 0.007	19498 history1 0 0 0 0 0.018	18726 history2 <1 0 0 0.007
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647	23500 limit/base >25 >20 >20 >0.05 >500 limit/base	20032 current <1 2 0 0.007 79 current 14794	19498 history1 0 0 0 0.018 183 history1 6315	18726 history2 <1 0 0 0.007 76.2 history2 615
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939	19498 history1 0 0 0 0.018 183 history1 6315 ▲ 2386	18726 history2 <1 0 0 0.007 76.2 history2 615 184
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 461	19498 history1 0 0 0 0.018 183 history1 6315 ▲ 2386 ▲ 249	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 4939 ▲ 461 ▲ 131	19498 history1 0 0 0 0.018 183 history1 6315 ▲ 2386 ▲ 249 ▲ 62	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23 8
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm % ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 461 ▲ 131 4	19498 history1 0 0 0 0.018 183 history1 6315 2386 2386 249 62 1	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23 8 2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm % ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 493 461 ▲ 131 4 0	19498 history1 0 0 0 0.018 183 history1 6315 ▲ 2386 ▲ 249 ▲ 62 1 0	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23 8 2 2 0
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm % ppm ESS	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 461 ▲ 131 4	19498 history1 0 0 0 0.018 183 history1 6315 2386 2386 249 62 1	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23 8 2
Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm % ppm ESS	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	20032 current <1 2 0 0.007 79 current 14794 ▲ 4939 ▲ 493 461 ▲ 131 4 0	19498 history1 0 0 0 0.018 183 history1 6315 ▲ 2386 ▲ 249 ▲ 62 1 0	18726 history2 <1 0 0 0.007 76.2 history2 615 184 23 8 2 2 0

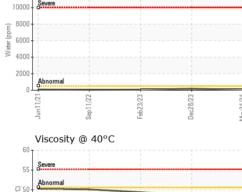
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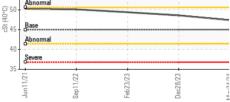


OIL ANALYSIS REPORT





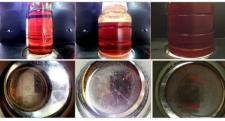




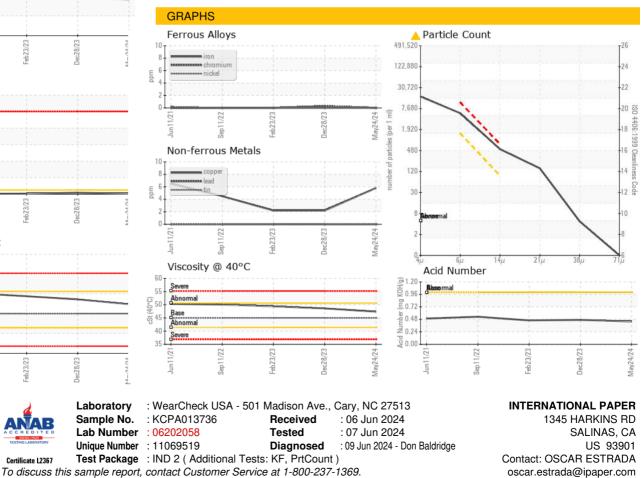


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	47.4	48.6	49.4
SAMPLE IMAGES		method	limit/base	current	history1	history2

Color



Bottom



* - 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)

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