

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

KAESER 7819704

Compressor

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

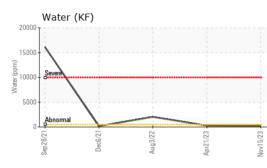
Fluid Condition

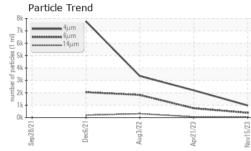
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

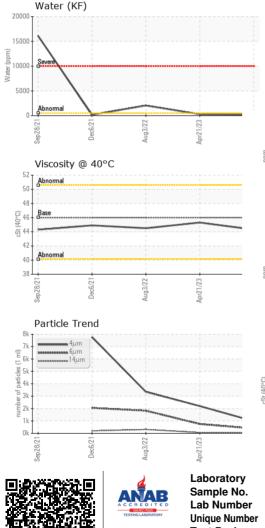
Sample Number Client Info KC125950 KC101862 KC102404 Sample Date Client Info 15 Nov 2023 21 Apr 2023 03 Aug 2022 Machine Age hrs Client Info 11075 7635 5588 Oil Age hrs Client Info N/A Changed Not Changed Oil Changed Client Info N/A Changed Not Changed Sample Status method Imit/base current history1 history1 WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05185m >3 0 0 0 Nickel ppm ASTM 05185m >3 0 0 0 Aluminum ppm ASTM 05185m >10 <1 0 0 Autominum ppm ASTM 05185m >10 0 <1 0 Autominum ppm ASTM 05185m >10 0 0 0 A			Sep2021	Dec2021	Aug2022 Apr2023	Nov2023	
Sample Date Client Info 15 Nov 2023 21 Apr 2023 03 Aug 2022 Machine Age hrs Client Info 11075 7635 5558 Oil Age hrs Client Info 0 1121 3821 Oil Changed Client Info N/A Changed Not Changed Sample Status Imit/base current history1 History2 Iron ppm ASTM 05185m >50 0 0 <11 Nickel ppm ASTM 05185m >3 0 0 0 Nickel ppm ASTM 05185m >3 0 0 <11 Auminum ppm ASTM 05185m >10 2 0 <11 Lead ppm ASTM 05185m >10 <1 0 0 Cadmium ppm ASTM 05185m 0 0 0 <1 Auminum ppm ASTM 05185m 0 0 0 0 Cadmium ppm	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 11075 7635 5588 Oil Age hrs Client Info 0 1121 3821 Oil Age Client Info N/A Changed Not Changed Sample Status Imit/base current Niskel Not Changed WEAR METALS method limit/base current History1 History2 Iron ppm ASTM D5185m >50 0 0 <1	Sample Number		Client Info		KC125950	KC101862	KC102404
Oil Age hrs Client Info 0 1121 3821 Oil Changed Client Info N/A Changed Not Changed Sample Status method imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 0 <1	Sample Date		Client Info		15 Nov 2023	21 Apr 2023	03 Aug 2022
Oil Changed Client Info N/A Changed Not Changed Sample Status Imit/base current NoRMAL ABNORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185n >50 0 0 <1	Machine Age	hrs	Client Info		11075	7635	5588
Sample Status More Mail NORMAL NORMAL ABNORMAL WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 0 <1	Oil Age	hrs	Client Info		0	1121	3821
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM 05185n >50 0 0 <1	Oil Changed		Client Info		N/A	Changed	Not Changd
Iron ppm ASTM D5185m >50 0 0 <1 Chromium ppm ASTM D5185m >3 0 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 0 <1	Sample Status				NORMAL	NORMAL	ABNORMAL
Ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >10 2 0 -1 Lead ppm ASTM D5185m >10 0 0 -1 Astmony ppm ASTM D5185m >10 0 0 -1 Antimony ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 Antimony ppm ASTM D5185m 90 22 29 42 Molydenum <td>WEAR METALS</td> <td></td> <td>method</td> <td>limit/base</td> <th>current</th> <td>history1</td> <td>history2</td>	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >3 0 0 0 Titanium ppm ASTM D5185m >3 <1	Iron	ppm	ASTM D5185m	>50	0	0	<1
Titanium ppm ASTM D5185m >3 <1 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 0 0 Lead ppm ASTM D5185m >10 2 1 2 Copper ppm ASTM D5185m >10 0 0 <1	Chromium	ppm	ASTM D5185m	>10	<1	0	0
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 2 0 <1	Nickel	ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm ASTM D5185m >10 2 0 <1 Lead ppm ASTM D5185m >10 <1	Titanium	ppm	ASTM D5185m	>3	<1	0	0
Lead ppm ASTM D5185m >10 <1 0 0 Copper ppm ASTM D5185m >50 2 <1	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >50 2 <1 2 Tin ppm ASTM D5185m >10 0 0 <1	Aluminum	ppm	ASTM D5185m	>10	2	0	<1
Tin ppm ASTM D5185m >10 0 0 <1 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 90 22 29 42 Molybdenum ppm ASTM D5185m 0 0 0 0 Margaese ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 0 0 <1	Lead	ppm	ASTM D5185m	>10	<1	0	0
Antimony ppm ASTM D5185m 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 0 0 0 0 Marganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 2 2 1 0 Phosphorus ppm ASTM D5185m 2 2 1 0 Zinc ppm ASTM D5185m 0 0 <1	Copper	ppm	ASTM D5185m	>50	2	<1	2
Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m <1	Tin	ppm	ASTM D5185m	>10	0	0	<1
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 22 29 42 Molybdenum ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 90 73 86 61 0 Calcium ppm ASTM D5185m 90 73 86 61 0 Calcium ppm ASTM D5185m 90 73 86 61 0 Calcium ppm ASTM D5185m 2 2 1 0 1 Contraktina ppm ASTM D5185m 0 0 2 0 Contraktina ppm ASTM D5185m 20 4 3 0 Sodium ppm ASTM D6185m	Antimony	ppm	ASTM D5185m				
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Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 22 29 42 Molybdenum ppm ASTM D5185m 90 22 29 42 Manganese ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 2 2 1 0 Phosphorus ppm ASTM D5185m 0 2 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 3 0 Yetassium ppm ASTM D5185m >20 14	Cadmium	ppm	ASTM D5185m		<1	0	0
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Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 2 2 1 0 Phosphorus ppm ASTM D5185m 0 0 <1	Barium	ppm	ASTM D5185m	90	22	29	42
Magnesium ppm ASTM D5185m 90 73 86 61 Calcium ppm ASTM D5185m 2 2 1 0 Phosphorus ppm ASTM D5185m 0 0 <1	Molybdenum	ppm	ASTM D5185m		<1	0	0
Calcium ppm ASTM D5185m 2 2 1 0 Phosphorus ppm ASTM D5185m 0 0 <1	Manganese	ppm	ASTM D5185m		0	0	0
Phosphorus ppm ASTM D5185m 0 0 <1 Zinc ppm ASTM D5185m 0 2 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 0 <1 Sodium ppm ASTM D5185m >25 <1 0 <1 Sodium ppm ASTM D5185m >20 4 3 0 Potassium ppm ASTM D5185m >20 4 3 0 Water % ASTM D6304 >0.05 0.022 0.028 △ 0.204 ppm Water ppm ASTM D6304 >500 226 281.8 △ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >21µm ASTM D7647 >20 <	Magnesium	ppm	ASTM D5185m	90	73	86	61
Zinc ppm ASTM D5185m 0 2 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Calcium	ppm	ASTM D5185m	2	2	1	0
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Phosphorus	ppm	ASTM D5185m		0	0	<1
Silicon ppm ASTM D5185m >25 <1 0 <1 Sodium ppm ASTM D5185m >20 19 23 10 Potassium ppm ASTM D5185m >20 4 3 0 Water % ASTM D6304 >0.05 0.022 0.028 ▲ 0.204 ppm Water ppm ASTM D6304 >500 226 281.8 ▲ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >1µm ASTM D7647 >20 11 14 ▲ 105 Particles >21µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) /17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method limit/base current hist	Zinc	ppm	ASTM D5185m		0	2	0
Sodium ppm ASTM D5185m 19 23 10 Potassium ppm ASTM D5185m >20 4 3 0 Water % ASTM D6304 >0.05 0.022 0.028 △ 0.204 ppm Water ppm ASTM D6304 >500 226 281.8 △ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >6µm ASTM D7647 >80 46 57 ▲ 310 Particles >14µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method <t< td=""><td>CONTAMINANTS</td><td>\$</td><td>method</td><td>limit/base</td><th>current</th><td>history1</td><td>history2</td></t<>	CONTAMINANTS	\$	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 4 3 0 Water % ASTM D6304 >0.05 0.022 0.028 △ 0.204 ppm Water ppm ASTM D6304 >500 226 281.8 △ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 △ 1823 Particles >14µm ASTM D7647 >80 46 57 △ 310 Particles >14µm ASTM D7647 >20 11 14 △ 105 Particles >38µm ASTM D7647 >3 0 0 △ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	<1	0	<1
Water % ASTM D6304 >0.05 0.022 0.028 ▲ 0.204 ppm Water ppm ASTM D6304 >500 226 281.8 ▲ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >6µm ASTM D7647 >80 46 57 ▲ 310 Particles >14µm ASTM D7647 >20 11 14 ▲ 105 Particles >21µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		19	23	10
ppm Water ppm ASTM D6304 >500 226 281.8 ▲ 2040 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >14µm ASTM D7647 >80 46 57 ▲ 310 Particles >14µm ASTM D7647 >20 11 14 ▲ 105 Particles >21µm ASTM D7647 >4 0 1 ▲ 16 Particles >38µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) /17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	4	3	0
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Particles >4µm ASTM D7647 979 2198 3347 Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >14µm ASTM D7647 >80 46 57 ▲ 310 Particles >14µm ASTM D7647 >20 11 14 ▲ 105 Particles >21µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >4 0 1 ▲ 16 Particles >71µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 ▲ 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	226	281.8	2 040
Particles >6µm ASTM D7647 >1300 383 750 ▲ 1823 Particles >14µm ASTM D7647 >80 46 57 ▲ 310 Particles >21µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >4 0 1 ▲ 16 Particles >71µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >80 46 57 ▲ 310 Particles >21µm ASTM D7647 >20 11 14 ▲ 105 Particles >38µm ASTM D7647 >4 0 1 ▲ 16 Particles >71µm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 ▲ 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		979	2198	3347
Particles >21μm ASTM D7647 >20 11 14 ▲ 105 Particles >38μm ASTM D7647 >4 0 1 ▲ 16 Particles >71μm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 ▲ 19/18/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>1300	383	750	<u> </u>
Particles >38μm ASTM D7647 >4 0 1 ▲ 16 Particles >71μm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 ▲ 19/18/15 FLUID DEGRADATION method limit/base current history1 history2							
Particles >71μm ASTM D7647 >3 0 0 ▲ 2 Oil Cleanliness ISO 4406 (c) >/17/13 17/16/13 18/17/13 ▲ 19/18/15 FLUID DEGRADATION method limit/base current history1 history2					11	14	1 05
Oil CleanlinessISO 4406 (c) >/17/1317/16/1318/17/1319/18/15FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2						1	
FLUID DEGRADATION method limit/base current history1 history2					0	0	
	Oil Cleanliness		ISO 4406 (c)	>/17/13	17/16/13	18/17/13	▲ 19/18/15
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.28 0.30 0.38	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.28	0.30	0.38



OIL ANALYSIS REPORT

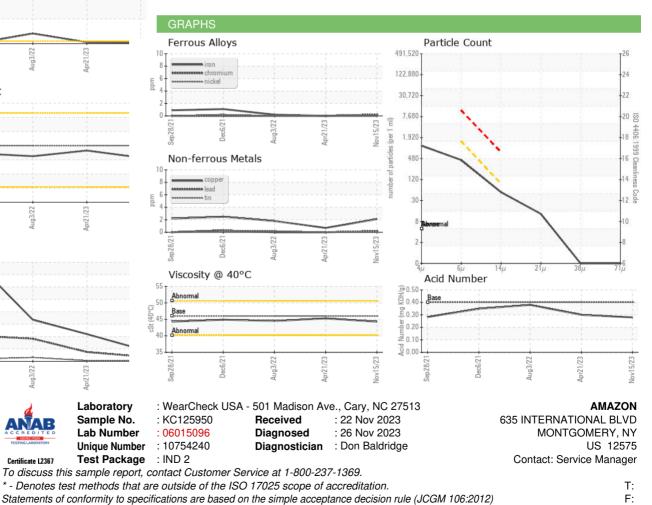






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	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	0.2%
Free Water	scalar	*Visual		NEG	NEG	1 .0
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.3	45.3	44.5
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color						

Bottom



Contact/Location: Service Manager - AMAMONNY