

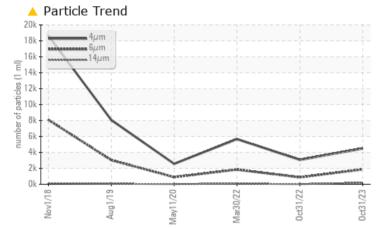
PROBLEM SUMMARY

KAESER SX5 6502774 (S/N 1060)

Compressor Fluid

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

COMPONENT CONDITION SUMMARY



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.

PROBLEMATIC TEST	RESULTS				
Sample Status			ABNORMAL	NORMAL	ATTENTION
Particles >6µm	ASTM D7647	>1300	<u> </u>	869	1 844
Particles >14µm	ASTM D7647	>80	<u> </u>	19	79
Particles >21µm	ASTM D7647	>20	<u> </u>	3	7
Oil Cleanliness	ISO 4406 (c)	>17/13	 18/15	17/11	1 8/13

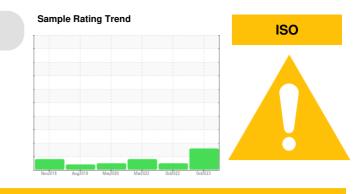
Customer Id: EASASP Sample No.: KCPA009456 Lab Number: 06008330 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 <u>don.b505@comcast.net</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

31 Oct 2022 Diag: Don Baldridge



Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



30 Mar 2022 Diag: Don Baldridge

11 May 2020 Diag: Don Baldridge



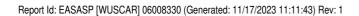
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.







OIL ANALYSIS REPORT

KAESER SX5 6502774 (S/N 1060)

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

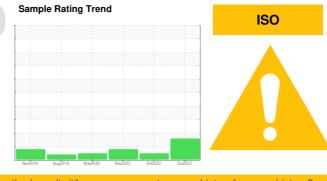
All component wear rates are normal.

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.



Sample Date Image Client Info 31 Oct 2023 31 Oct 2022 30 Mar 2022 Machine Age hrs Client Info 21605 17161 15264 Oil Age hrs Client Info N/A Changed Admonstration Sample Status Image Image N/A Changed Changed Sample Status Image Image Client Info N/A Changed Changed VEAR METALS method Image current history1 history2 Iron ppm ASTM D5185 >50 0 0 0 Nickel ppm ASTM D5185 >3 0 0 0 Silver ppm ASTM D5185 >10 0 0 0 Capper ppm ASTM D5185 >10 0 0 0 Attimony ppm ASTM D5185 >10 0 0 0 Attimony ppm ASTM D5185 0 0	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Date Image Client Info 31 Oct 2023 31 Oct 2022 30 Mar 2022 Machine Age hrs Client Info 21605 17161 15264 Oil Age hrs Client Info N/A Changed Admonstration Sample Status Image Image N/A Changed Changed Sample Status Image Image Client Info N/A Changed Changed VEAR METALS method Image current history1 history2 Iron ppm ASTM D5185 >50 0 0 0 Nickel ppm ASTM D5185 >3 0 0 0 Silver ppm ASTM D5185 >10 0 0 0 Capper ppm ASTM D5185 >10 0 0 0 Attimony ppm ASTM D5185 >10 0 0 0 Attimony ppm ASTM D5185 0 0	Sample Number		Client Info		KCPA009456	KCP46429	KCP44651
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Oil Age hrs Client Info 0 2000 4000 Oil Changed Client Info N/A Changed Changed ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 4 11 Chromium ppm ASTM D5185m >50 0 4 11 Chromium ppm ASTM D5185m >30 0 0 0 Nickel ppm ASTM D5185m >33 0 0 0 Silver ppm ASTM D5185m >10 0 -1 -1 Lead ppm ASTM D5185m >10 0 0 0 Adminum ppm ASTM D5185m >10 0 0 0 Adminum ppm ASTM D5185m >10 0 0 0 Cadmium ppm ASTM D5185m >10 0 0 0 Adminum ppm ASTM D5185m >10 0 0 0 Cadmium ppm ASTM D5185m >0 0 0 0 Barion ppm ASTM D5185m 0 <td>Machine Age</td> <td>hrs</td> <td>Client Info</td> <td></td> <th>21605</th> <td>17161</td> <td>15264</td>	Machine Age	hrs	Client Info		21605	17161	15264
Oil Changed Client Info N/A Changed Changed Sample Status Image Image ABNORMAL NORMAL ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185 >50 0 4 11 Chromium ppm ASTM D5185 >30 0 0 0 Nickel ppm ASTM D5185 >32 0 0 0 Silver ppm ASTM D5185 >32 0 0 0 Aluminum ppm ASTM D5185 >10 0 0 0 Lead ppm ASTM D5185 >10 0 0 0 Antimony ppm ASTM D5185 >10 0 0 0 Vanadium ppm ASTM D5185 >10 0 0 0 Adaminum ppm ASTM D5185 >10 0 0 0 0 Adaminum ppm ASTM D5185 0 0 0 0 0 Adaminum ppm ASTM D5185 0 0 0 0 1 Barium ppm AST	-	hrs	Client Info		0	2000	4000
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 4 11 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 >10 0 <11	Oil Changed		Client Info		N/A	Changed	Changed
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Dromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Auminum ppm ASTM D5185m >10 0 <1 <1 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m <10 0 0 0 Vanadium ppm ASTM D5185m <11 0 0 0 Adaminum ppm ASTM D5185m <1 0 0 0 Adaminum ppm ASTM D5185m <1 0 0 0 Adaminum ppm ASTM D5185m 0 0 0 <1 0 Adaminum ppm ASTM D5185m 0 5 24	WEAR METALS		method	limit/base	current	history1	history2
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 <1	Iron	ppm	ASTM D5185m	>50	0	4	11
Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 0 <1	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 0 <1	Nickel	ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm ASTM D5185m >10 0 <1 <1 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >50 10 7 6 Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m <	Titanium	ppm	ASTM D5185m	>3	0	0	0
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Copper ppm ASTM D5185m >50 10 7 6 Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>10	0	<1	<1
Tin ppm ASTM D5185m >10 0 0 0 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Lead	ppm	ASTM D5185m	>10	0	0	0
Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>50	10	7	6
Number Note of the second secon	Tin	ppm	ASTM D5185m	>10	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 <1 Barium ppm ASTM D5185m 0 0 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 5 24 30 Calcium ppm ASTM D5185m 0 5 24 30 Calcium ppm ASTM D5185m 0 <1 9 11 Sulfur ppm ASTM D5185m 0 15 9 11 Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon	Antimony	ppm	ASTM D5185m				
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 23 3 Molybdenum ppm ASTM D5185m 90 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 -1 3 0 Zinc ppm ASTM D5185m 0 15 9 11 Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0 0 0 23 3 Molybdenum ppm ASTM D5185m 0 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 0 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 90 0 23 3 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 0 <1 0 Phosphorus ppm ASTM D5185m 0 <1 30 0 Zinc ppm ASTM D5185m 0 <1 3 0 Sulfur ppm ASTM D5185m 0 15 9 11 Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1 Sodium ppm ASTM D5185m >20 <1 0 0 Water % ASTM D5404 >0.05 0.004	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	0	0	<1
Maganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 0 <1	Barium	ppm	ASTM D5185m	90	0	23	3
Magnesium ppm ASTM D5185m 100 5 24 30 Calcium ppm ASTM D5185m 0 0 <1	Molybdenum	ppm	ASTM D5185m	0	0	0	0
Calcium ppm ASTM D5185m 0 <1 0 Phosphorus ppm ASTM D5185m 0 <1	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 0 <1 3 0 Zinc ppm ASTM D5185m 0 15 9 11 Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1	Magnesium	ppm	ASTM D5185m	100	5	24	30
Zinc ppm ASTM D5185m 0 15 9 11 Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1	Calcium	ppm	ASTM D5185m	0	0	<1	0
Sulfur ppm ASTM D5185m 23500 19869 22016 16474 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1 Sodium ppm ASTM D5185m >20 <1 0 0 Sodium ppm ASTM D5185m >20 <1 0 0 Potassium ppm ASTM D5185m >20 <1 0 0 Water % ASTM D6304 >0.05 0.004 0.006 0.017 ppm ASTM D6304 >500 48.4 69.4 173.2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 1863 869 1844 Particles >1µm ASTM D7647 >20 42 3 7 Particles >21µm ASTM D7647 >20 42 3 7	Phosphorus	ppm	ASTM D5185m	0	<1	3	0
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 1 1 <1	Zinc	ppm	ASTM D5185m	0	15	9	11
Silicon ppm ASTM D5185m >25 1 1 <1 Sodium ppm ASTM D5185m 2 7 7 Potassium ppm ASTM D5185m >20 <1	Sulfur	ppm	ASTM D5185m	23500	19869	22016	16474
Sodium ppm ASTM D5185m 2 7 7 Potassium ppm ASTM D5185m >20 <1 0 0 Water % ASTM D6304 >0.05 0.004 0.006 0.017 ppm Water ppm ASTM D6304 >500 48.4 69.4 173.2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 1863 869 1844 Particles >6µm ASTM D7647 >20 42 3 7 Particles >14µm ASTM D7647 >20 42 3 7 Particles >38µm ASTM D7647 >4 1 0 0 Particles >71µm ASTM D7647 >3 0 0 0	CONTAMINANTS		method	limit/base	current	history1	history2
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Water % ASTM D6304 >0.05 0.004 0.006 0.017 ppm Water ppm ASTM D6304 >500 48.4 69.4 173.2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 4485 3061 5665 Particles >6µm ASTM D7647 >1300 1863 869 1844 Particles >14µm ASTM D7647 >20 42 3 7 Particles >38µm ASTM D7647 >4 1 0 0 Particles >71µm ASTM D7647 >3 0 0 0	Sodium	ppm	ASTM D5185m		2	7	7
ppm Water ppm ASTM D6304 >500 48.4 69.4 173.2 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 4485 3061 5665 Particles >6µm ASTM D7647 >1300 1863 869 1844 Particles >14µm ASTM D7647 >80 194 19 79 Particles >14µm ASTM D7647 >20 42 3 7 Particles >21µm ASTM D7647 >4 1 0 0 Particles >38µm ASTM D7647 >3 0 0 0	Potassium	ppm	ASTM D5185m	>20	<1	0	0
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 4485 3061 5665 Particles >6µm ASTM D7647 >1300 1863 869 1844 Particles >14µm ASTM D7647 >80 194 19 79 Particles >21µm ASTM D7647 >20 42 3 7 Particles >38µm ASTM D7647 >4 1 0 0 Particles >71µm ASTM D7647 >3 0 0 0	Water	%	ASTM D6304	>0.05	0.004	0.006	0.017
Particles >4μm ASTM D7647 4485 3061 5665 Particles >6μm ASTM D7647 >1300 1863 869 1844 Particles >14μm ASTM D7647 >80 194 19 79 Particles >14μm ASTM D7647 >20 42 3 7 Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	ppm Water	ppm	ASTM D6304	>500	48.4	69.4	173.2
Particles >6μm ASTM D7647 >1300 A 1863 869 A 1844 Particles >14μm ASTM D7647 >80 A 194 19 79 Particles >21μm ASTM D7647 >20 A 42 3 7 Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 ▲ 194 19 79 Particles >21μm ASTM D7647 >20 ▲ 42 3 7 Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	Particles >4µm		ASTM D7647		4485	3061	5665
Particles >14μm ASTM D7647 >80 ▲ 194 19 79 Particles >21μm ASTM D7647 >20 ▲ 42 3 7 Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	Particles >6µm		ASTM D7647	>1300		869	1 844
Particles >21μm ASTM D7647 >20 42 3 7 Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	Particles >14μm					19	79
Particles >38μm ASTM D7647 >4 1 0 0 Particles >71μm ASTM D7647 >3 0 0 0	Particles >21µm		ASTM D7647	>20		3	
Particles >71μm ASTM D7647 >3 0 0 0	Particles >38µm						0
	Particles >71µm			>3	0		
	Oil Cleanliness		ISO 4406 (c)	>17/13	1 8/15	17/11	▲ 18/13

FLUID DEGRADATION Acid Number (AN) mg KOH

TION method lin mg KOH/g ASTM D8045 1.0

limit/base

0.36 0.42 0.40

history1

Report Id: EASASP [WUSCAR] 06008330 (Generated: 11/17/2023 11:11:43) Rev: 1

Contact/Location: Service Manager - EASASP

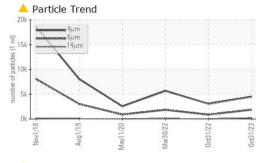
current

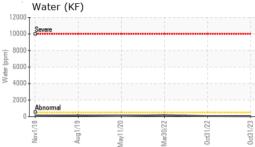
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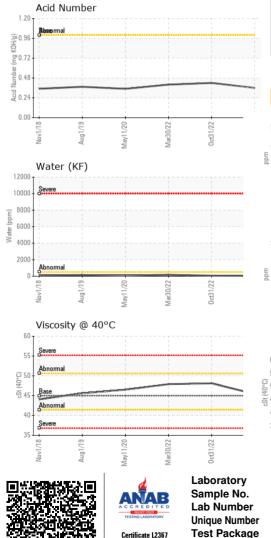
history2



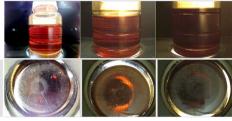
OIL ANALYSIS REPORT



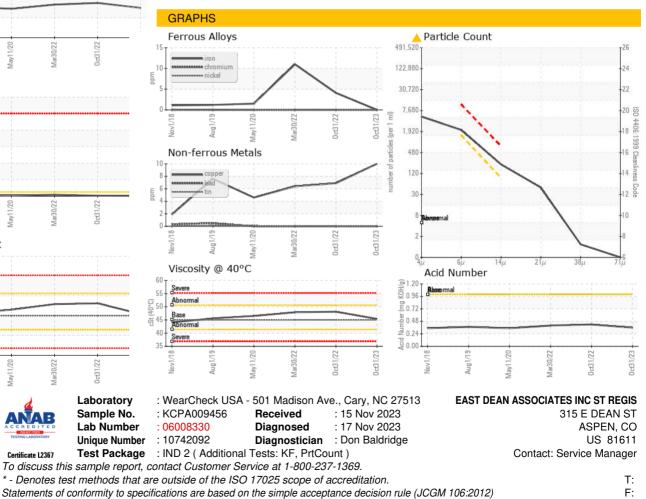




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	45.4	48.1	47.9
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color				. 8.		



Bottom



Report Id: EASASP [WUSCAR] 06008330 (Generated: 11/17/2023 11:11:44) Rev: 1

Contact/Location: Service Manager - EASASP