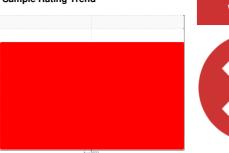


# **PROBLEM SUMMARY**

Sample Rating Trend



WATER

7453581 (S/N 1337)

Component

Compressor

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

### COMPONENT CONDITION SUMMARY



### **RECOMMENDATION**

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Water	%	ASTM D6304	>0.05	<b>△</b> 0.164				
ppm Water	ppm	ASTM D6304	>500	<b>1640</b>				
Silt	scalar	*Visual	NONE	▲ HEAVY				
Appearance	scalar	*Visual	NORML	LAYRD				
Emulsified Water	scalar	*Visual	>0.05	<b>0.2%</b>				
Free Water	scalar	*Visual		20.0				

Customer Id: SWECHA Sample No.: KCPA006058 Lab Number: 05935384 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

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

RECOMMENDED AC	CTIONS					
Action	Status	Date	Done By	Description		
Alert			?	We were unable to perform a particle count due to a high concentration of particles present in this sample.		

# HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**

Acid Number (AN)

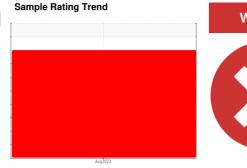
mg KOH/g ASTM D8045 1.5

7453581 (S/N 1337)

Component

Compressor

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





## DIAGNOSIS

#### Recommendation

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

All component wear rates are normal.

## Contamination

There is a high amount of visible silt present in the sample. Excessive free water present. There is a light concentration of water present in the oil.

### **Fluid Condition**

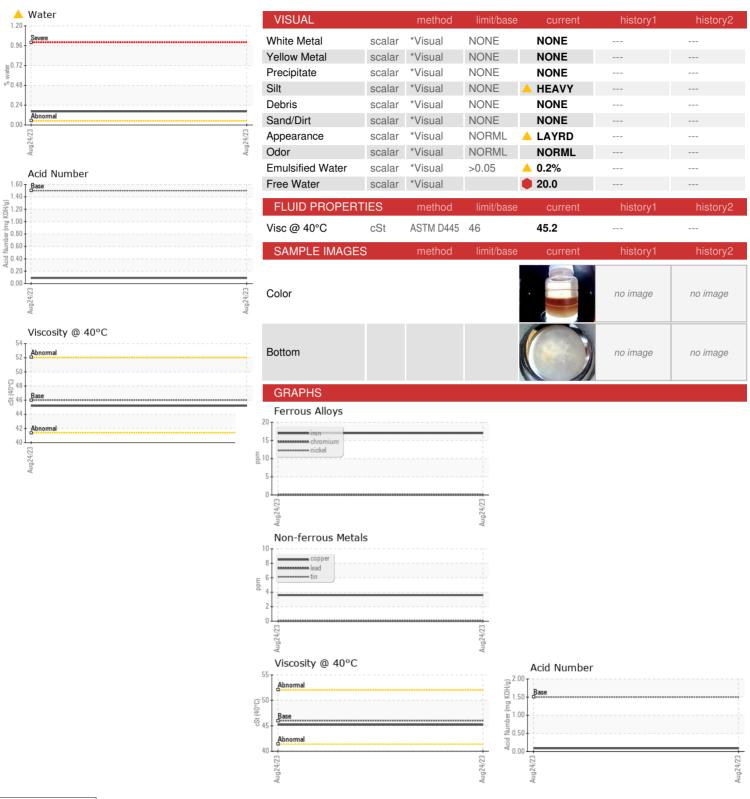
The AN level is acceptable for this fluid.

Sample Date    Client Info    24 Aug 2023        Machine Age    hrs    Client Info    3457        Oil Age    hrs    Client Info    0        Oil Changed    Client Info    N/A        Sample Status    SEVERE        WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17        Nickel    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Titanium    ppm    ASTM D5185m    >10    5        Silver    ppm    ASTM D5185m    >10    5        Aluminum    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m <t< th=""><th></th><th></th><th></th><th></th><th>Aug2023</th><th></th><th></th></t<>					Aug2023		
Sample Date    Client Info    24 Aug 2023       Machine Age    hrs    Client Info    3457       Oil Age    hrs    Client Info    0       Oil Changed    Client Info    N/A       Sample Status    SEVERE       WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >3    0        Nickel    ppm    ASTM D5185m    >3    0        Alluminum    ppm    ASTM D5185m    >2    0        Alead    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Cop	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age    hrs    Client Info    3457        Oil Age    hrs    Client Info    0        Oil Changed    Client Info    N/A        Sample Status    SEVERE        WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Niker    ppm    ASTM D5185m    >3    0        Niker    ppm    ASTM D5185m    >10    5        Silver    ppm    ASTM D5185m    >10    0        Aluminum    ppm    ASTM D5185m    >10    0        Copper    ppm    AST	Sample Number		Client Info		KCPA006058		
Oil Age    hrs    Client Info    0        Oil Changed    Client Info    N/A        Sample Status    SEVERE       WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Silver    ppm    ASTM D5185m    >2    0        Aluminum    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >10    0        Vanadium    ppm <td< td=""><td>Sample Date</td><td></td><td>Client Info</td><td></td><td>24 Aug 2023</td><td></td><td></td></td<>	Sample Date		Client Info		24 Aug 2023		
WEAR METALS    method    limit/base    current    history1    history2      Irron    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Titanium    ppm    ASTM D5185m    >3    0        Aluminum    ppm    ASTM D5185m    >10    5        Aluminum    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >10    0        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    0        Cadmium    ppm    ASTM D5185m    0 <t< td=""><td>Machine Age</td><td>hrs</td><td>Client Info</td><td></td><td>3457</td><td></td><td></td></t<>	Machine Age	hrs	Client Info		3457		
WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17	Oil Age	hrs	Client Info		0		
WEAR METALS    method    limit/base    current    history1    history2      Iron    ppm    ASTM D5185m    >50    17        Chromium    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Silver    ppm    ASTM D5185m    >2    0        Aluminum    ppm    ASTM D5185m    >10    5        Aluminum    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >10    0        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    <1	Oil Changed		Client Info		N/A		
Description   Description	Sample Status				SEVERE		
Chromium    ppm    ASTM D5185m    >10    0        Nickel    ppm    ASTM D5185m    >3    0        Titanium    ppm    ASTM D5185m    >3    0        Silver    ppm    ASTM D5185m    >2    0        Aluminum    ppm    ASTM D5185m    >10    5        Aluminum    ppm    ASTM D5185m    >10    0        Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >10    0        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    0         Cadmium    ppm    ASTM D5185m    0         Boron    ppm    ASTM D5185m    0	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	17		
Titanium    ppm    ASTM D5185m    >3    0        Silver    ppm    ASTM D5185m    >2    0        Aluminum    ppm    ASTM D5185m    >10    5        Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >50    4        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    >10         Vanadium    ppm    ASTM D5185m    0         Cadmium    ppm    ASTM D5185m    0         ADDITIVES    method    limit/base    current    history1    history2      Boron    ppm    ASTM D5185m    0         Molybdenum    ppm    ASTM D5185m    0    <	Chromium	ppm	ASTM D5185m	>10	0		
Silver	Nickel	ppm	ASTM D5185m	>3	0		
Aluminum	Titanium	ppm	ASTM D5185m	>3	0		
Lead    ppm    ASTM D5185m    >10    0        Copper    ppm    ASTM D5185m    >50    4        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    0        Cadmium    ppm    ASTM D5185m    0        Cadmium    ppm    ASTM D5185m    0        Boron    ppm    ASTM D5185m    0        Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Magnesium    ppm    ASTM D5185m    <1	Silver	ppm	ASTM D5185m	>2	0		
Copper    ppm    ASTM D5185m    >50    4        Tin    ppm    ASTM D5185m    >10    0        Vanadium    ppm    ASTM D5185m    <1	Aluminum	ppm	ASTM D5185m	>10	5		
Tin ppm ASTM D5185m >10 0	Lead	ppm	ASTM D5185m	>10	0		
Vanadium    ppm    ASTM D5185m    <1        Cadmium    ppm    ASTM D5185m    0        ADDITIVES    method    limit/base    current    history1    history2      Boron    ppm    ASTM D5185m    0        Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1        Magnesium    ppm    ASTM D5185m    0        Calcium    ppm    ASTM D5185m    0        Phosphorus    ppm    ASTM D5185m    363        Zinc    ppm    ASTM D5185m    3059        Sulfur    ppm    ASTM D5185m    25    2        CONTAMINANTS    method    limit/base    current    hist	Copper	ppm	ASTM D5185m	>50	4		
Cadmium    ppm    ASTM D5185m    0        ADDITIVES    method    limit/base    current    history1    history2      Boron    ppm    ASTM D5185m    0        Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1	Tin	ppm	ASTM D5185m	>10	0		
ADDITIVES    method    limit/base    current    history1    history2      Boron    ppm    ASTM D5185m    0        Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1	Vanadium	ppm	ASTM D5185m		<1		
Boron    ppm    ASTM D5185m    0        Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1	Cadmium	ppm	ASTM D5185m		0		
Barium    ppm    ASTM D5185m    0        Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1        Magnesium    ppm    ASTM D5185m    0        Calcium    ppm    ASTM D5185m    0        Phosphorus    ppm    ASTM D5185m    363        Zinc    ppm    ASTM D5185m    3059        Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    20    0        Potassium    ppm    ASTM D6304    >0.05    0.164        ppm Water    ppm    ASTM D630	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum    ppm    ASTM D5185m    0        Manganese    ppm    ASTM D5185m    <1        Magnesium    ppm    ASTM D5185m    <1        Calcium    ppm    ASTM D5185m    0        Phosphorus    ppm    ASTM D5185m    363        Zinc    ppm    ASTM D5185m    3059        Sulfur    ppm    ASTM D5185m    25    2        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    20    0        Potassium    ppm    ASTM D6304    >0.05    0.164        ppm Water    %    ASTM D6304    >500    1640	Boron	ppm	ASTM D5185m		0		
Manganese    ppm    ASTM D5185m    <1	Barium	ppm	ASTM D5185m		0		
Magnesium    ppm    ASTM D5185m    <1        Calcium    ppm    ASTM D5185m    0        Phosphorus    ppm    ASTM D5185m    363        Zinc    ppm    ASTM D5185m    3059        Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    0.1644        ppm Water    ppm    ASTM D6304    >500    1640	Molybdenum	ppm	ASTM D5185m		0		
Calcium    ppm    ASTM D5185m    0        Phosphorus    ppm    ASTM D5185m    500    320        Zinc    ppm    ASTM D5185m    363        Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    0.164        ppm Water    ppm    ASTM D6304    >500    1640	Manganese	ppm	ASTM D5185m		<1		
Phosphorus    ppm    ASTM D5185m    500    320        Zinc    ppm    ASTM D5185m    363        Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    0.164        ppm Water    ppm    ASTM D6304    >500    1640	Magnesium	ppm	ASTM D5185m		<1		
Zinc    ppm    ASTM D5185m    363        Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    △    0.164        ppm Water    ppm    ASTM D6304    >500    △    1640	Calcium	ppm	ASTM D5185m		0		
Sulfur    ppm    ASTM D5185m    3059        CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    0.164        ppm Water    ppm    ASTM D6304    >500    1640	Phosphorus	ppm	ASTM D5185m	500	320		
CONTAMINANTS    method    limit/base    current    history1    history2      Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    A 0.164        ppm Water    ppm    ASTM D6304    >500    A 1640	Zinc	ppm	ASTM D5185m		363		
Silicon    ppm    ASTM D5185m    >25    2        Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    ▲ 0.164        ppm Water    ppm    ASTM D6304    >500    ▲ 1640	Sulfur	ppm	ASTM D5185m		3059		
Sodium    ppm    ASTM D5185m    2        Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    ▲ 0.164        ppm Water    ppm    ASTM D6304    >500    ▲ 1640	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium    ppm    ASTM D5185m    >20    0        Water    %    ASTM D6304    >0.05    ▲ 0.164        ppm Water    ppm    ASTM D6304    >500    ▲ 1640	Silicon	ppm	ASTM D5185m	>25	2		
Water  %  ASTM D6304  >0.05  ▲ 0.164      ppm Water  ppm  ASTM D6304  >500  ▲ 1640	Sodium	ppm	ASTM D5185m		2		
ppm Water ppm ASTM D6304 >500 ▲ <b>1640</b>	Potassium	ppm	ASTM D5185m	>20	0		
PP - 100 PP	Water	%	ASTM D6304	>0.05	<b>0.164</b>		
FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	<b>△</b> 1640		
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2

0.09



## **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 05935384

: KCPA006058

Received : 10620655

: 25 Aug 2023 Diagnosed

: 05 Sep 2023 Diagnostician : Doug Bogart

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

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.

**SWEETGREEN INC** 

529 MAIN ST, SUITE 308 CHARLESTOWN, MA US 02129

Contact: LUKE SCHLUETER lukeschlueter@sweetgreen.com

T:

F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)