

## **OIL ANALYSIS REPORT**

# Sample Rating Trend ISO

Machine Id 8100176 (S/N 1118) Component

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 DateClient Info15 Jan 202424 Apr 202314 SetMachine AgehrsClient Info1398598126289Oil AgehrsClient Info035233265Oil ChangedClient InfoN/AChangedCharSample StatusImageImageATTENTIONATTENTION	aged ENTION history2
Machine Age hrs Client Info 13985 9812 6289   Oil Age hrs Client Info 0 3523 3265   Oil Changed Client Info N/A Changed Char   Sample Status Client Info N/A Changed Char   WEAR METALS method limit/base current history1 ATTENTION   Iron ppm ASTM D5185m >50 <1 <1 <1   Chromium ppm ASTM D5185m >10 <1 0 0   Nickel ppm ASTM D5185m >3 0 0 0   Silver ppm ASTM D5185m >2 0 0 0   Aluminum ppm ASTM D5185m >10 2 1 <1 <1	nged ENTION history2
Oil AgehrsClient Info035233265Oil ChangedClient InfoN/AChangedCharSample StatusImageImageABNORMALATTENTIONATTENTIONWEAR METALSmethodlimit/basecurrenthistory1AttentionIronppmASTM D5185m>50<1<1<1ChromiumppmASTM D5185m>10<100NickelppmASTM D5185m>3000SilverppmASTM D5185m>2000AluminumppmASTM D5185m>1021<1LeadppmASTM D5185m>10<100	aged ENTION history2
Oil Changed Sample StatusClient InfoN/AChangedChar Sample StatusWEAR METALSmethodlimit/basecurrenthistory1ATTENTIONIronppmASTM D5185m>50<1<1<1ChromiumppmASTM D5185m>10<100NickelppmASTM D5185m>3000TitaniumppmASTM D5185m>3<100SilverppmASTM D5185m>2000AluminumppmASTM D5185m>1021<1LeadppmASTM D5185m>10<100	nged ENTION history2
Sample Status method limit/base current history1 ATTENTION ATTENTION   WEAR METALS method limit/base current history1 ft   Iron ppm ASTM D5185m >50 <1 <1 <1   Chromium ppm ASTM D5185m >10 <1 0 0   Nickel ppm ASTM D5185m >3 0 0 0   Titanium ppm ASTM D5185m >3 <1 0 0   Silver ppm ASTM D5185m >2 0 0 0   Aluminum ppm ASTM D5185m >10 2 1 <1   Lead ppm ASTM D5185m >10 <1 0 0	ENTION history2
WEAR METALS method limit/base current history1 H   Iron ppm ASTM D5185m >50 <1 <1 <1 <1   Chromium ppm ASTM D5185m >10 <1 0 0   Nickel ppm ASTM D5185m >3 0 0 0   Titanium ppm ASTM D5185m >3 <1 0 0   Silver ppm ASTM D5185m >2 0 0 0   Aluminum ppm ASTM D5185m >10 2 1 <1   Lead ppm ASTM D5185m >10 <1 0 0	history2
Iron ppm ASTM D5185m >50 <1	
Chromium ppm ASTM D5185m >10 <1	1
Nickel ppm ASTM D5185m >3 0 0 0   Titanium ppm ASTM D5185m >3 <1	
Titanium ppm ASTM D5185m >3 <1	
Silver ppm ASTM D5185m >2 0 0 0 0   Aluminum ppm ASTM D5185m >10 2 1 <1	
Silver ppm ASTM D5185m >2 0 0 0   Aluminum ppm ASTM D5185m >10 2 1 <1	
Aluminum ppm ASTM D5185m >10 2 1 <1	
Lead ppm ASTM D5185m >10 <1 0 0	1
in the second	
	3
Tin ppm ASTM D5185m >10 <1	
Vanadium ppm ASTM D5185m 0	
Cadmium ppm ASTM D5185m O O O	
ADDITIVES method limit/base current history1 h	history2
Boron ppm ASTM D5185m O	
Barium ppm ASTM D5185m 90 1 0 <1	1
Molybdenum ppm ASTM D5185m 0 0 0	
Manganese ppm ASTM D5185m 0 <1 <1	1
Magnesium ppm ASTM D5185m 100 24 15 22	2
Calcium ppm ASTM D5185m 0 <1 0 <1	1
Phosphorus ppm ASTM D5185m 0 27 2 4	
Zinc ppm ASTM D5185m 0 164 146 12	27
Sulfur ppm ASTM D5185m 23500 21429 22624 17	7175
CONTAMINANTS method limit/base current history1 h	history2
Silicon ppm ASTM D5185m >25 0 0 <1	1
Sodium ppm ASTM D5185m 27 6 22	2
Potassium ppm ASTM D5185m >20 15 2 19	)
Water % ASTM D6304 >0.05 0.017 0.018 0.01	026
ppm Water ppm ASTM D6304 >500 179 182.5 26	66.6
FLUID CLEANLINESS method limit/base current history1 h	history2
	572
Particles >6μm ASTM D7647 >1300 ▲ 1616 1245 ▲ 20	)76
Particles >14μm ASTM D7647 >80 ▲ 606 ▲ 132 ▲ 12	22
Particles >21μm ASTM D7647 >20 ▲ 364 ▲ 40 ▲ 25	5
Particles >38μm ASTM D7647 >4 Δ 34 2 0	
Particles >71μm ASTM D7647 >3 1 0 0	
Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/18/16 ▲ 19/17/14 ▲ 20	0/18/14
	history2
FLUID DEGRADATION method limit/base current history1 h	

Contact/Location: S. VARGAS - CHEBEN



Built for a lifetime. Particle Trend

10k

6

4

2

0 4/22

12000

10000

800 (maa)

600 Water 400

200

1.20 (B/H0) E0.72 Ê 0.4 Pio 0.2

0.00

10000

600 Water (

4000

200

60

55

() 50 50

3 45

40

35

muu

Sep

Water (KF)

Abnormal

Abnorma

Se

Sep 1

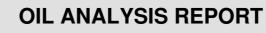
e

Acid Number

Sep 1

Water (KF)

of particles (1 ml)



VISUAL		method	limit/base	current	history1
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1
Visc @ 40°C	cSt	ASTM D445	45	48.1	45.9
SAMPLE IMAGES	;	method	limit/base	current	history1
Color					3
Bottom					(130)



history2

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

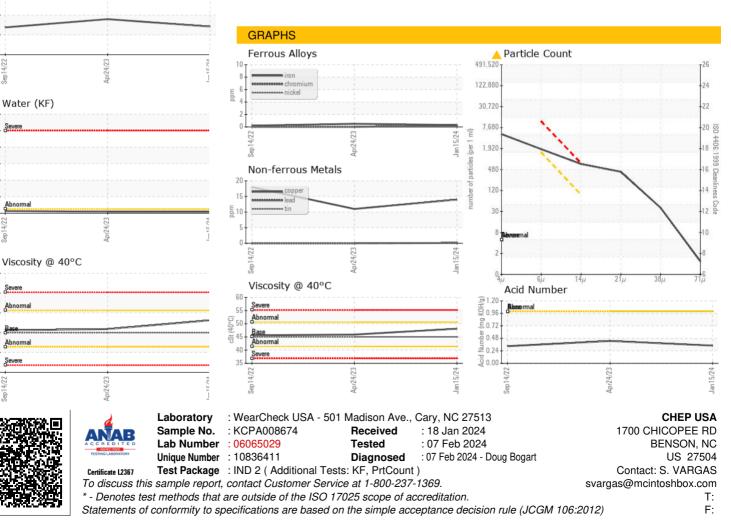
history2

history2

NEG

NEG

45.6



Contact/Location: S. VARGAS - CHEBEN