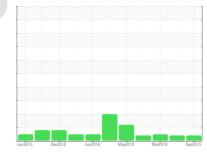


# **PROBLEM SUMMARY**

Area [10664528] KAESER C-1 (S/N 1044)

Compressor

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



Sample Rating Trend



**COMPONENT CONDITION SUMMARY** 

No relevant graphs to display

# RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	NORMAL		
Debris	scalar	*Visual	NONE	MODER	▲ HEAVY	VLITE		

Customer Id: WESLONWC **Sample No.:** WCI2335369 Lab Number: 04812125 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

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

# Action Status Date Done By Description Change Filter MISSED May 21 2020 ? We recommend you service the filters on this component. Alert --- ? We were unable to perform a particle count due to a high concentration of particles present in this sample.

# HISTORICAL DIAGNOSIS

# 18 Jun 2019 Diag: Jonathan Hester

### VIS DEBRIS



We recommend you service the filters on this component. Resample at the next service interval to monitor. 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. High concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



# 29 Mar 2019 Diag: Don Baldridge

### NORMAL



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

# view report

# 30 Aug 2018 Diag: Jonathan Hester

### VIS DEBRIS



We recommend you service the filters on this component. Resample at the next service interval to monitor. 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. High concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



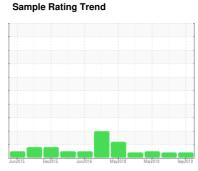


# **OIL ANALYSIS REPORT**

# Area [10664528] KAESER C-1 (S/N 1044)

Compressor

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





# **DIAGNOSIS**

# Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

# Wear

All component wear rates are normal.

# Contamination

Moderate concentration of visible dirt/debris present in the oil.

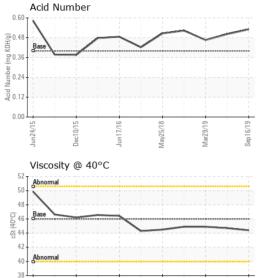
# **Fluid Condition**

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

SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		WCI2335369	WC04753356	WCI2351488
Sample Date		Client Info		16 Sep 2019	18 Jun 2019	29 Mar 2019
Machine Age	hrs	Client Info		27455	24491	23507
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	<1	<1	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	<1	<1	<1
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>50	10	3	6
Tin	ppm	ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m		0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history 1	history 2
					,	
Boron	nnm	ASTM D5185m		0	<i>z</i> 1	0
Boron	ppm	ASTM D5185m	90	0	<1	0
Barium	ppm	ASTM D5185m	90	0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	90	0	0	0
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1	0 0 0	0 0 0
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90	0 0 <1 0	0 0 0 <1	0 0 0 <1
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90	0 0 <1 0	0 0 0 <1 2	0 0 0 <1 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90	0 0 <1 0 0	0 0 0 <1 2 16	0 0 0 <1 <1 1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90	0 0 <1 0 0 0	0 0 0 <1 2 16 2	0 0 0 <1 <1 1 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90	0 0 <1 0 0	0 0 0 <1 2 16	0 0 0 <1 <1 1 <1 8825
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 2	0 0 0 <1 0 0 0 <1 6928	0 0 0 <1 2 16 2 8620 history 1	0 0 0 <1 <1 <1 1 <1 8825
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	90	0 0 0 <1 0 0 0 <1 6928 current	0 0 0 <1 2 16 2 8620 history 1	0 0 0 <1 <1 <1 1 <1 8825 history 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	90 2	0 0 0 <1 0 0 0 <1 6928 current 3 <1	0 0 0 <1 2 16 2 8620 history 1	0 0 0 <1 <1 <1 1 <1 8825 history 2 2 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	90 2	0 0 0 <1 0 0 0 <1 6928 current	0 0 0 <1 2 16 2 8620 history 1	0 0 0 <1 <1 <1 1 <1 8825 history 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	90 2 limit/base >25	0 0 0 <1 0 0 0 <1 6928 current 3 <1	0 0 0 <1 2 16 2 8620 history 1 3	0 0 0 <1 <1 <1 1 <1 8825 history 2 2 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 2 limit/base >25 >20 limit/base	0 0 0 <1 0 0 0 <1 6928 current 3 <1	0 0 0 <1 2 16 2 8620 history 1 3 2 <1	0 0 0 <1 <1 <1 1 <1 8825 history 2 2 <1 2 history 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 2 limit/base >25 >20 limit/base	0 0 0 <1 0 0 0 <1 6928 current 3 <1 1	0 0 0 <1 2 16 2 8620 history 1 3 2 <1	0 0 0 <1 <1 1 <1 8825 history 2 2 <1 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 2 limit/base >25 >20 limit/base	0 0 0 <1 0 0 0 <1 6928 current 3 <1 1	0 0 0 <1 2 16 2 8620 history 1 3 2 <1 history 1	0 0 0 <1 <1 <1 1 <1 8825 history 2 2 <1 2 history 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	90 2 limit/base >25 >20 limit/base >1300 >80	0 0 0 <1 0 0 0 <1 6928  current 3 <1 1 current	0 0 0   0   16   2   16   2   8620   history 1   3   2   <1   history 1	0 0 0 <1 <1 <1 1 <1 8825 history 2 2 <1 2 history 2 2012 436
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	90 2 limit/base >25 >20 limit/base >1300 >80	0 0 0 <1 0 0 0 <1 6928 current 3 <1 1	0 0 0 <1 2 16 2 8620 history 1 3 2 <1 history 1	0 0 0 <1 <1 <1 1 8825 history 2 2 <1 2 history 2 2012 436 59
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	90 2 limit/base >25 >20 limit/base >1300 >80 >20	0 0 0 -<1 0 0 0 -<1 6928 current 3 -<1 1 	0 0 0   0   16   2   16   2   8620   history 1   3   2   <1   history 1	0 0 0 <1 <1 1 <1 8825 history 2 2 <1 2 history 2 22012 436 59 24
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	90 2 limit/base >25 >20 limit/base >1300 >80 >20 >4	0 0 0 <li>&lt;1 0 0 0 </li> <li>6928      current      current </li>	0 0 0 <1 2 16 2 8620 history 1 3 2 <1 history 1	0 0 0 <1 <1 1 <1 8825 history 2 2 <1 2 history 2 22012 436 59 24
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	90 2 limit/base >25 >20 limit/base >1300 >80 >20 >4 >3	0 0 0 0 <1 0 0 0 <1 6928      current 3 <1 1      current	0 0 0 0 1 2 16 2 8620 history 1 3 2 <1 history 1	0 0 0 <1 <1 1 <1 8825 history 2 2 <1 2 history 2 2012 436 59 24 4

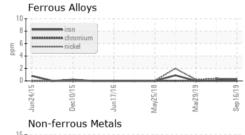


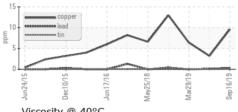
# **OIL ANALYSIS REPORT**

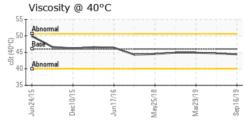


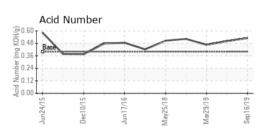
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	▲ HEAVY	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.4	44.7	44.9
SAMPLE IMAGES	3	method	limit/base	current	history 1	history 2
Color						
Bottom						

# **GRAPHS**













Unique Number : 8761997

Laboratory Sample No. Lab Number

: WCI2335369 : 04812125

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

Diagnosed

: 03 Oct 2019 Diagnostician : Jonathan Hester

: 01 Oct 2019

Test Package : IND 2 ( Additional Tests: 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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) **WESTLAKE CHEMICAL** 

2290 CALLAHAN RD LONGVIEW, TX US 75607

Contact: ROB WALLIN rwallin@westlake.com T: (903)242-7576

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Contact/Location: ROB WALLIN - WESLONWC