

# **PROBLEM SUMMARY**

**/** 

Sample Rating Trend

DIRT

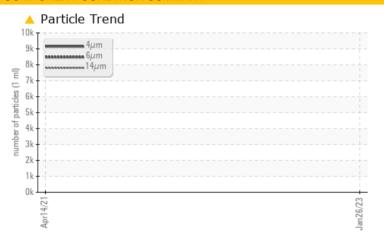
Machine Id **24808369 (S/N 1151)** 

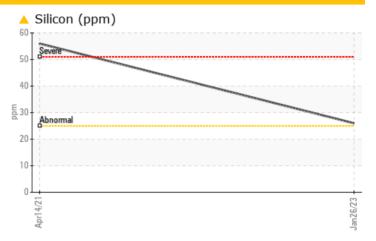
Component

Compressor

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

## **COMPONENT CONDITION SUMMARY**





#### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS									
Sample Status				ABNORMAL	ABNORMAL				
Silicon	ppm	ASTM D5185m	>25	<b>^</b> 26	<u>▲</u> 56				
Particles >6µm		ASTM D7647	>1300	<b>3346</b>					
Particles >14µm		ASTM D7647	>80	<b>183</b>					
Particles >21µm		ASTM D7647	>20	<b>4</b> 30					
Oil Cleanliness		ISO 4406 (c)	>/17/13	<u>^</u> 20/19/15					

Customer Id: PACTRA Sample No.: KCP53135 Lab Number: 05780835 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 jhester@wearcheckusa.com

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

RECOMMENDED	ACTIONS			
Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

## 14 Apr 2021 Diag: Doug Bogart

DIRT

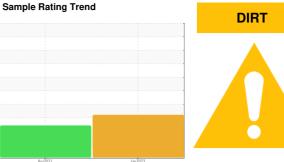


No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. Moderate concentration of visible dirt/debris present in the oil. The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.





# **OIL ANALYSIS REPORT**



# 24808369 (S/N 1151)

Compressor

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

## **DIAGNOSIS**

#### Recommendation

Oil and 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. Elemental level of silicon (Si) above normal.

#### **Fluid Condition**

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

			Apr2021	Jan 2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCP53135	KCP37433	
Sample Date		Client Info		26 Jan 2023	14 Apr 2021	
Machine Age	hrs	Client Info		86398	73507	
Oil Age	hrs	Client Info		3000	7715	
Oil Changed		Client Info		Changed	Changed	
Sample Status				ABNORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	
Chromium	ppm	ASTM D5185m	>10	0	0	
Nickel	ppm	ASTM D5185m	>3	0	0	
Titanium	ppm	ASTM D5185m	>3	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>10	0	0	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m	>50	9	5	
Tin	ppm	ASTM D5185m	>10	0	0	
Antimony	ppm	ASTM D5185m	>10		0	
Vanadium		ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
Caumum	ppm	ASTIVI DO TOSITI		U	U	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1	
Barium	ppm	ASTM D5185m	90	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
			0	0	0	
Molybdenum	ppm	ASTM D5185m	100	-		
Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m		0	0	
Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	100	0 <1	0	
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100	0 <1 0	0 0 0	
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 0 0	0 <1 0	0 0 0 <1	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 0 0	0 <1 0 10	0 0 0 <1 0	
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 method	100 0 0 0 23500 limit/base	0 <1 0 10 0 19668 current	0 0 0 <1 0 15415 history1	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MSTM D5185m	100 0 0 0 23500	0 <1 0 10 0 19668 current 26	0 0 0 <1 0 15415 history1 ▲ 56	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m	100 0 0 0 23500 limit/base >25	0 <1 0 10 0 19668 current   26 <1	0 0 0 <1 0 15415 history1 ▲ 56 0	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 0 0 0 23500 limit/base >25	0 <1 0 10 0 19668 current 26 <1 0	0 0 0 <1 0 15415 history1 ▲ 56 0	   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m	100 0 0 0 23500 limit/base >25	0 <1 0 10 0 19668 current   26 <1	0 0 0 <1 0 15415 history1 ▲ 56 0	   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 0 0 0 23500 limit/base >25 >20 >0.05	0 <1 0 10 0 19668 current ▲ 26 <1 0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009	   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	100 0 0 0 23500 limit/base >25 >20 >0.05 >500	0 <1 0 10 0 19668 current    26 <1 0 0.009 95.9	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2	history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water  FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 method	100 0 0 0 23500 limit/base >25 >20 >0.05 >500	0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647	100 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	100 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	100 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base	0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	100 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	0 <1 0 10 0 19668	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water  FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	100 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	0 <1 0 10 0 19668	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	100 0 0 0 23500 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	0	0 0 0 <1 0 15415 history1 ▲ 56 0 0 0.009 97.2 history1	history2 history2



## **OIL ANALYSIS REPORT**





Certificate L2367

Sample No. Lab Number **Unique Number** 

: KCP53135 : 05780835

: 10360505

Diagnosed

: 03 Mar 2023 Diagnostician : Jonathan Hester

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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) 11888 W LINNE RD TRACY, CA US 95377

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