

# **PROBLEM SUMMARY**

Sample Rating Trend

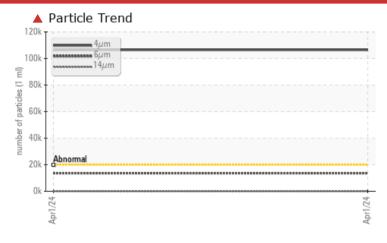
Machine Id

# **COOLING TOWER 4-2 (S/N 109956)**

Gearbox

**MOBIL DTE OIL EXTRA HEAVY (2 GAL)** 

### COMPONENT CONDITION SUMMARY



### **RECOMMENDATION**

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status			SEVERE				
Particles >4µm	ASTM D7647	>20000	<b>106470</b>				
Particles >6µm	ASTM D7647	>5000	<b>13618</b>				
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>4</b> 24/21/10				

**Customer Id: KIMPARUS Sample No.:** WC0867569 Lab Number: 06150326 Test Package: PLANT

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

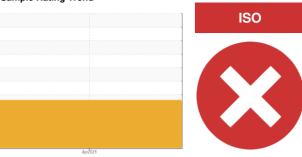
RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Filter			?	We recommend you service the filters on this component if applicable.		

# HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **COOLING TOWER 4-2 (S/N 109956)**

Gearbox

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**MOBIL DTE OIL EXTRA HEAVY (2 GAL)** 

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) 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 Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status WEAR METALS PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin	hrs hrs	method Client Info Client Info Client Info Client Info Client Info Client Info ASTM D8184 ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current WC0867569 01 Apr 2024 0 0 N/A SEVERE current	history1	history2
Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status WEAR METALS PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	hrs hrs	Client Info Client Info Client Info Client Info Client Info Method ASTM D8184 ASTM D5185m ASTM D5185m	limit/base	WC0867569 01 Apr 2024 0 0 N/A SEVERE		
Sample Date Machine Age Oil Age Oil Changed Sample Status  WEAR METALS PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info Method ASTM D8184 ASTM D5185m ASTM D5185m		01 Apr 2024 0 0 N/A SEVERE		
Machine Age Oil Age Oil Age Oil Changed Sample Status  WEAR METALS PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	Client Info Client Info Client Info Method ASTM D8184 ASTM D5185m ASTM D5185m		0 0 N/A SEVERE		
Oil Age Oil Changed Sample Status  WEAR METALS  PQ rron Chromium Nickel Fitanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	Client Info Client Info  method ASTM D8184 ASTM D5185m ASTM D5185m		0 N/A SEVERE		
Oil Changed Sample Status  WEAR METALS  PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	method ASTM D8184 ASTM D5185m ASTM D5185m		N/A SEVERE current		
Sample Status  WEAR METALS  PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm	method ASTM D8184 ASTM D5185m ASTM D5185m		SEVERE		
WEAR METALS PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm	ASTM D8184 ASTM D5185m ASTM D5185m		current		
PQ Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm	ASTM D8184 ASTM D5185m ASTM D5185m			history1	history2
ron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm	ASTM D5185m ASTM D5185m	>30			
Chromium  Nickel  Fitanium  Silver  Aluminum  Lead  Copper	ppm ppm ppm	ASTM D5185m	>30	26		
Nickel Fitanium Silver Aluminum Lead Copper	ppm ppm			23		
Fitanium Silver Aluminum Lead Copper	ppm	ASTM D5185m	>4	<1		
Silver Aluminum Lead Copper	ppm		>5	0		
Aluminum Lead Copper		ASTM D5185m		0		
_ead Copper	nnm	ASTM D5185m	>5	0		
Copper	ppm	ASTM D5185m	>8	0		
• •	ppm	ASTM D5185m	>10	0		
Γin	ppm	ASTM D5185m	>8	2		
	ppm	ASTM D5185m	>4	<1		
/anadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		43		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		0		
Calcium	ppm	ASTM D5185m		86		
Phosphorus	ppm	ASTM D5185m		517		
Zinc	ppm	ASTM D5185m		356		
Sulfur	ppm	ASTM D5185m		12131		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>10	2		
Sodium	ppm	ASTM D5185m		2		
otassium	ppm	ASTM D5185m	>20	0		
Vater	%	ASTM D6304	>0.2	0.005		
ppm Water	ppm	ASTM D6304	>2000	55		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>▲</b> 106470		
Particles >6µm		ASTM D7647	>5000	<b>13618</b>		
Particles >14µm		ASTM D7647	>640	8		
Particles >21µm		ASTM D7647	>160	2		
Particles >38µm		ASTM D7647	>40	0		
Particles >71µm		ASTM D7647	>10	0		
Dil Cleanliness		ISO 4406 (c)	>21/19/16	<b>24/21/10</b>		
FLUID DEGRADA				<u> 24/21/10</u>		

Acid Number (AN) mg KOH/g ASTM D8045

0.87 --- ---



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

: WC0867569 Lab Number : 06150326 Unique Number : 10980404

Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 16 Apr 2024 Tested : 17 Apr 2024

Diagnosed : 18 Apr 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.

 $^st$  - 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)

Kimberly-Clark - Paris

2466 FM 137 PARIS, TX US 75460

Contact: TERRY BURCHINAL terry.burchinal@kcc.com

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