

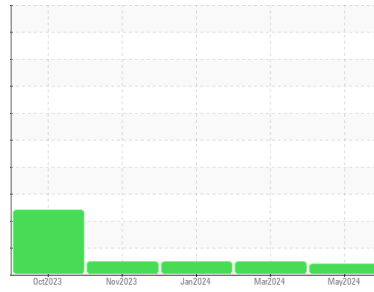


# OIL ANALYSIS REPORT



Area  
**MINING**  
 Machine Id  
**ME-66 CATERPILLAR 980M MK700460**  
 Component  
**Rear Differential**  
 Fluid  
**CAT TDTO 30W (--- GAL)**

Sample Rating Trend



## VISCOSITY



### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The oil viscosity is higher than normal. The condition of the oil is acceptable for the time in service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0910920</b>	WC0909664	WC0880668
Sample Date	Client Info		<b>07 May 2024</b>	12 Mar 2024	22 Jan 2024
Machine Age	hrs	Client Info	<b>6064</b>	5546	5015
Oil Age	hrs	Client Info	<b>500</b>	2000	1500
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	Changed
Sample Status			<b>ATTENTION</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	<b>12</b>	52	50
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>&lt;1</b>	3	3
Lead	ppm	ASTM D5185m	>13	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>103	<b>&lt;1</b>	10	8
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>3</b>	2	2
Barium	ppm	ASTM D5185m		<b>1</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	2	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>27</b>	22	24
Calcium	ppm	ASTM D5185m	2980	<b>2899</b>	2781	2569
Phosphorus	ppm	ASTM D5185m	1100	<b>1067</b>	926	862
Zinc	ppm	ASTM D5185m	1270	<b>1244</b>	1180	1094
Sulfur	ppm	ASTM D5185m		<b>8439</b>	5996	4991

### CONTAMINANTS

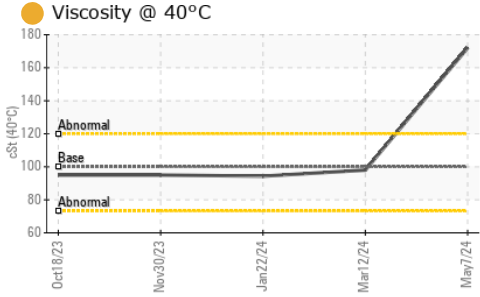
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>100	<b>6</b>	8	8
Sodium	ppm	ASTM D5185m		<b>1</b>	0	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1

### VISUAL

	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG



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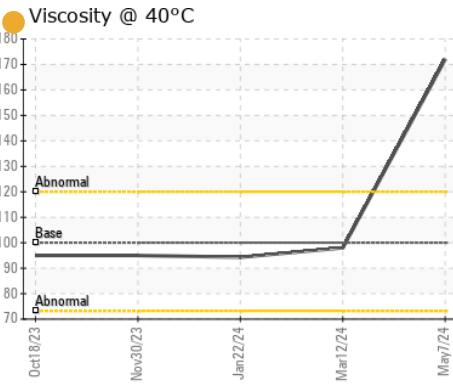
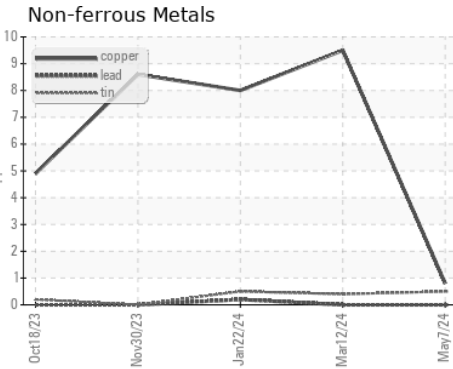
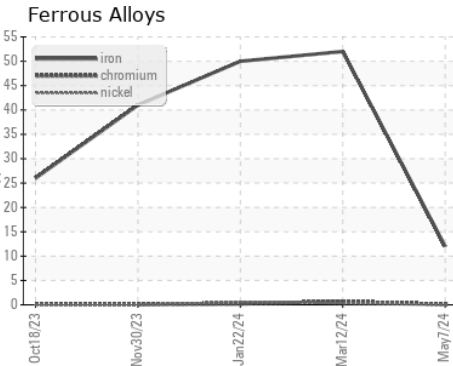
### FLUID PROPERTIES

method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	100 <span style="color: orange;">●</span> 172	98.0	94.3

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color				
Bottom				

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0910920      **Received** : 13 May 2024  
**Lab Number** : 06177951      **Tested** : 14 May 2024  
**Unique Number** : 11029277      **Diagnosed** : 15 May 2024 - Sean Felton  
**Test Package** : CONST

**COVIA - CAMDEN - 094**  
 1700 SAND MILL RD  
 CAMDEN, TN  
 US 38320  
 Contact: TRACY KEE  
 tracy.kee@coviacorp.com

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)

T:  
F: