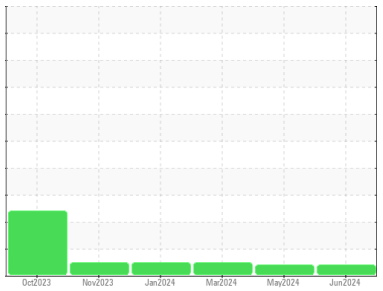
OIL ANALYSIS REPORT

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		**WC0950849**	WC0910920	WC0909664
Sample Date		Client Info		**17 Jun 2024**	07 May 2024	12 Mar 2024
Machine Age	hrs	Client Info		**6540**	6064	5546
Oil Age	hrs	Client Info		**1000**	500	2000
Oil Changed		Client Info		**N/A**	Not Changd	N/A
Sample Status				**ATTENTION**	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	**17**	12	52
Chromium	ppm	ASTM D5185m	>3	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>3	**0**	0	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	**2**	<1	3
Lead	ppm	ASTM D5185m	>13	**0**	0	0
Copper	ppm	ASTM D5185m	>103	**4**	<1	10
Tin	ppm	ASTM D5185m	>5	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**7**	3	2
Barium	ppm	ASTM D5185m		**0**	1	0
Molybdenum	ppm	ASTM D5185m		**1**	0	2
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**28**	27	22
Calcium	ppm	ASTM D5185m	2980	**3030**	2899	2781
Phosphorus	ppm	ASTM D5185m	1100	**1101**	1067	926
Zinc	ppm	ASTM D5185m	1270	**1297**	1244	1180
Sulfur	ppm	ASTM D5185m		**8980**	8439	5996

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	**7**	6	8
Sodium	ppm	ASTM D5185m		**2**	1	0
Potassium	ppm	ASTM D5185m	>20	**2**	0	2

VISUAL		method	limit/base	current	history1	history2
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	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

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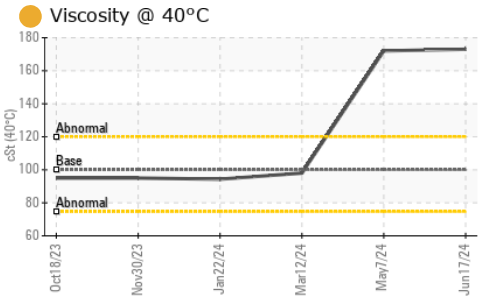
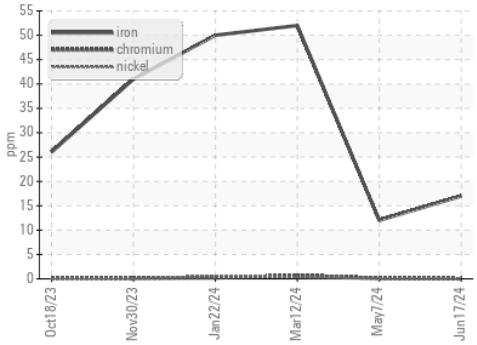


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	**173**	172	98.0

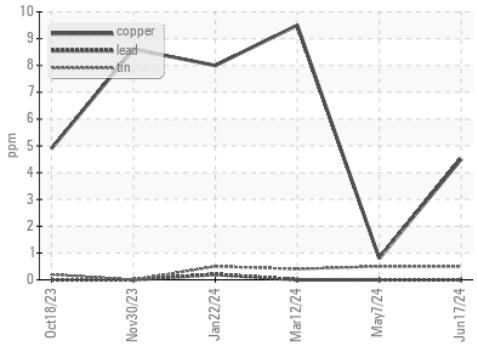
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

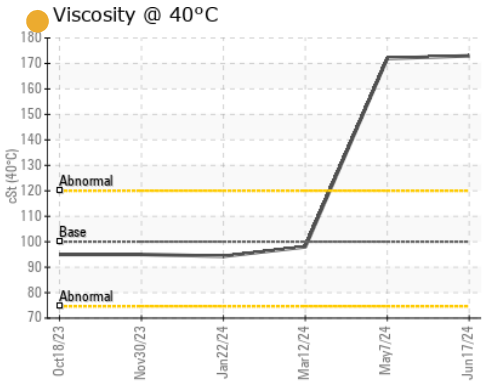
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950849
Lab Number : 06218659
Unique Number : 11096856
Test Package : CONST

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Sean Felton

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)

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