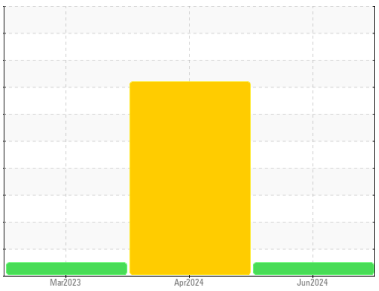
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
CATERPILLAR 705-0001
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0914647**	WC0914641	WC0423832
Sample Date		Client Info		**11 Jun 2024**	17 Apr 2024	06 Mar 2023
Machine Age	hrs	Client Info		**17386**	0	0
Oil Age	hrs	Client Info		**500**	0	0
Oil Changed		Client Info		**N/A**	Not Changd	N/A
Sample Status				**NORMAL**	SEVERE	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**9**	4	9
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	<1	1
Lead	ppm	ASTM D5185(m)	>40	**1**	1	2
Copper	ppm	ASTM D5185(m)	>330	**4**	6	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	**37**	53	53
Barium	ppm	ASTM D5185(m)	10	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	100	**42**	40	40
Manganese	ppm	ASTM D5185(m)		**<1**	0	<1
Magnesium	ppm	ASTM D5185(m)	450	**514**	478	496
Calcium	ppm	ASTM D5185(m)	3000	**1741**	1604	1729
Phosphorus	ppm	ASTM D5185(m)	1150	**751**	702	915
Zinc	ppm	ASTM D5185(m)	1350	**894**	808	1000
Sulfur	ppm	ASTM D5185(m)	4250	**2034**	1983	2313
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**9**	7	4
Sodium	ppm	ASTM D5185(m)	>158	**30**	91	3
Potassium	ppm	ASTM D5185(m)	>20	**0**	1	0
Glycol	%	ASTM D7922*		**0.0**	▲ 0.196	0.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.3**	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**8.1**	5.3	7.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**24.5**	22.0	25.6

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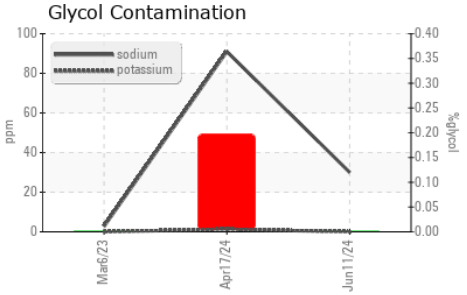
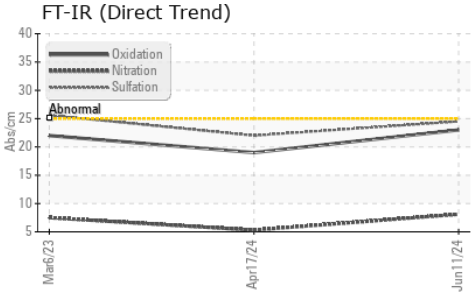
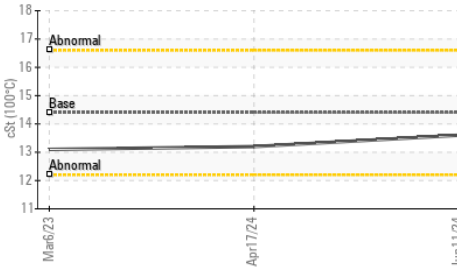
Glycol Contamination



FT-IR (Direct Trend)



Viscosity @ 100°C



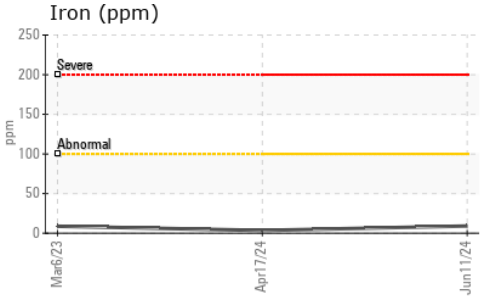
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**23.0**	19.0	22.0

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

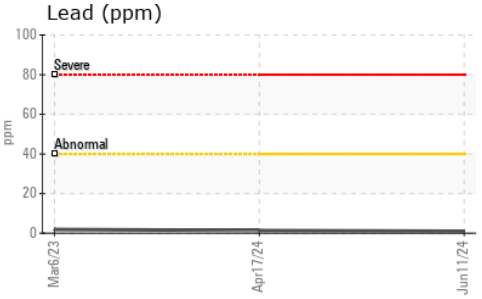
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	**13.6**	13.2	13.1

GRAPHS

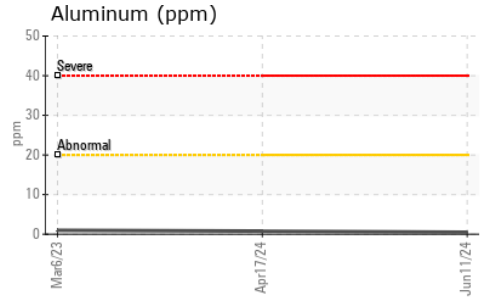
Iron (ppm)



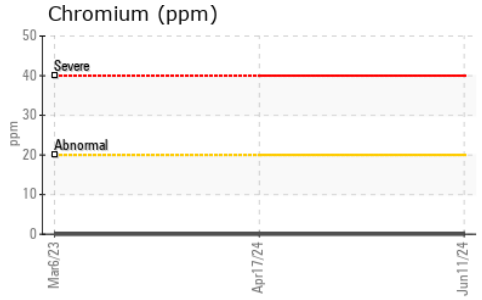
Lead (ppm)



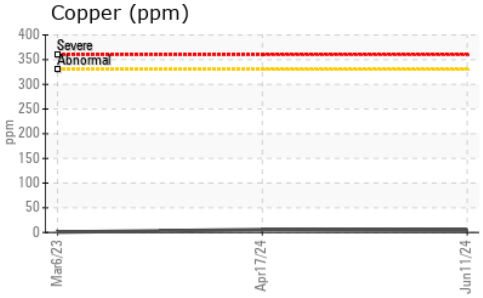
Aluminum (ppm)



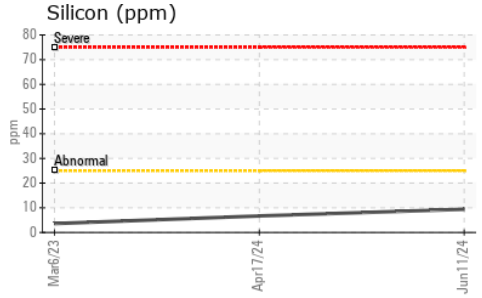
Chromium (ppm)



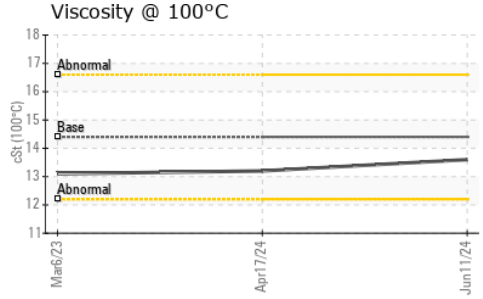
Copper (ppm)



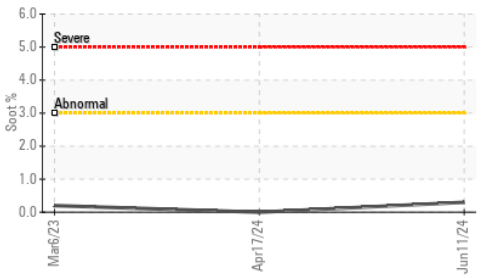
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0914647
Lab Number : 02641311
Unique Number : 5798850
Test Package : MOB 1

Received : 12 Jun 2024
Tested : 12 Jun 2024
Diagnosed : 12 Jun 2024 - Wes Davis

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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