



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
CATERPILLAR 938M 76
Component
Hydraulic System
Fluid
PETRO CANADA 10W (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0906051	WC0868157	---
Sample Date		Client Info		02 Feb 2024	24 Oct 2023	---
Machine Age	hrs	Client Info		7676	7184	---
Oil Age	hrs	Client Info		242	260	---
Filter Age	hrs	Client Info		242	260	---
Oil Changed		Client Info		N/A	Not Changd	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	▲ 30	8	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	0	---
Lead	ppm	ASTM D5185m	>10	1	0	---
Copper	ppm	ASTM D5185m	>75	0	2	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

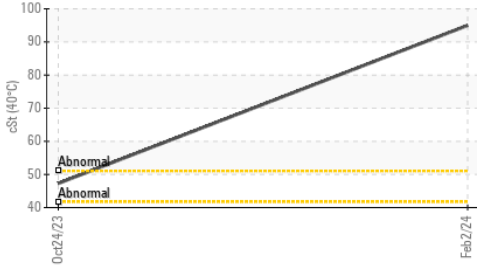
Silicon	ppm	ASTM D5185m	>20	5	5	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.1	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

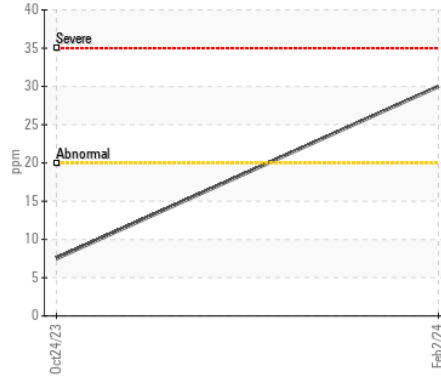
The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil.

Sodium	ppm	ASTM D5185m		2	0	---
Boron	ppm	ASTM D5185m		2	60	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m		● 11	25	---
Calcium	ppm	ASTM D5185m		● 2980	1774	---
Phosphorus	ppm	ASTM D5185m		1003	735	---
Zinc	ppm	ASTM D5185m		1177	955	---
Sulfur	ppm	ASTM D5185m		● 6751	2347	---
Visc @ 40°C	cSt	ASTM D445		▲ 95.0	47.3	---

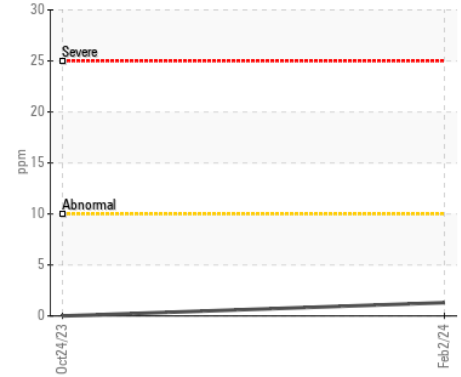
▲ Viscosity @ 40°C



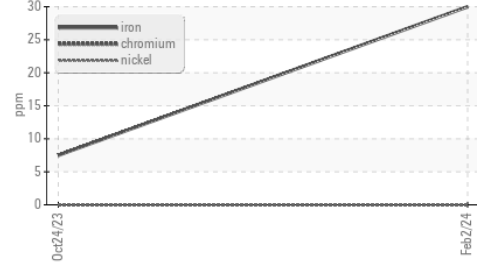
▲ Iron (ppm)



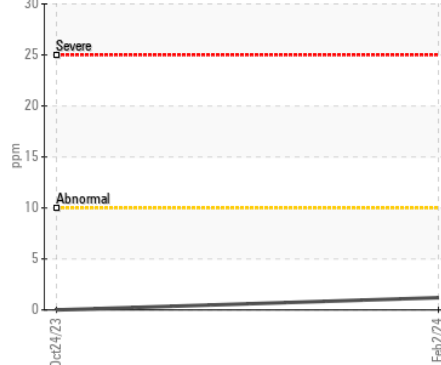
Lead (ppm)



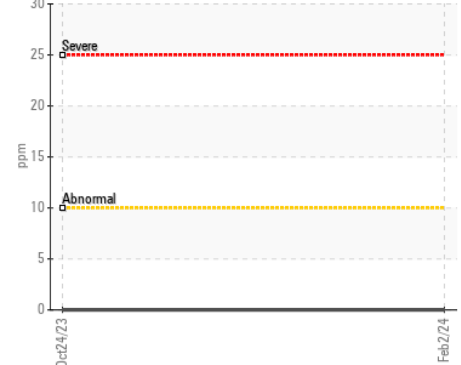
▲ Ferrous Alloys



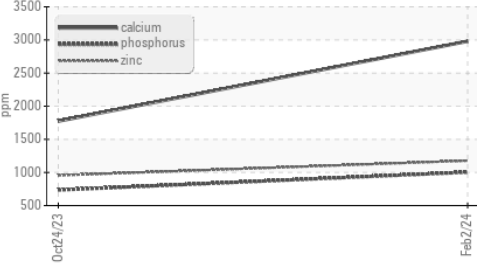
Aluminum (ppm)



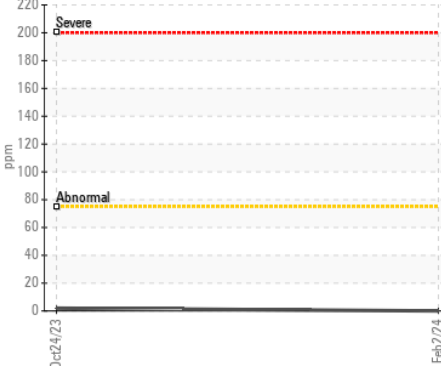
Chromium (ppm)



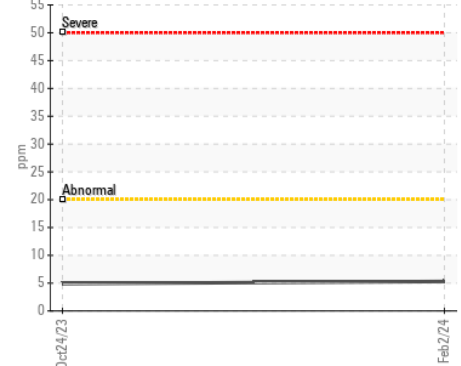
● Additives



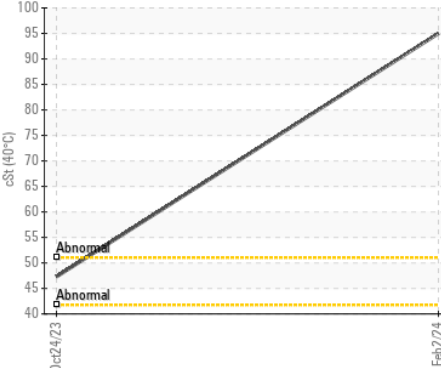
Copper (ppm)



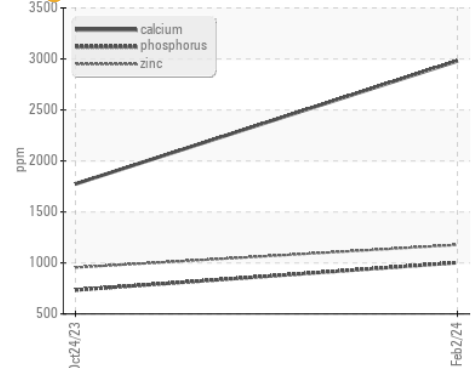
Silicon (ppm)



▲ Viscosity @ 40°C



● Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0906051

Lab Number : 06105669

Unique Number : 10903899

Test Package : MOB 1

Received : 29 Feb 2024

Tested : 06 Mar 2024

Diagnosed : 06 Mar 2024 - Jonathan Hester

C.L. BENTON & SONS INC

706 38TH AVE N

MYRTLE BEACH, SC

US 29577

Contact: NEIL

neil@clbenton.com

T:

F:

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)