



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[687187]
 Machine Id
TORO TX1000N 412549843
 Component
Hydraulic System
 Fluid
VOLVO WB 102 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP445314	VCP431344	---
Sample Date		Client Info		11 Mar 2024	18 Sep 2023	---
Machine Age	hrs	Client Info		1015	745	---
Oil Age	hrs	Client Info		500	745	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	13	33	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	2	<1	---
Lead	ppm	ASTM D5185m	>10	<1	0	---
Copper	ppm	ASTM D5185m	>75	3	6	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

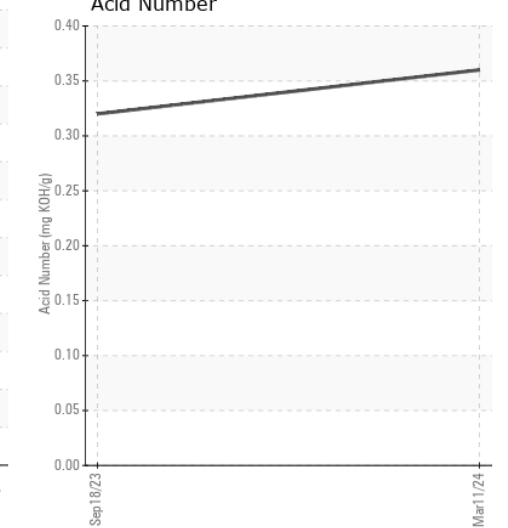
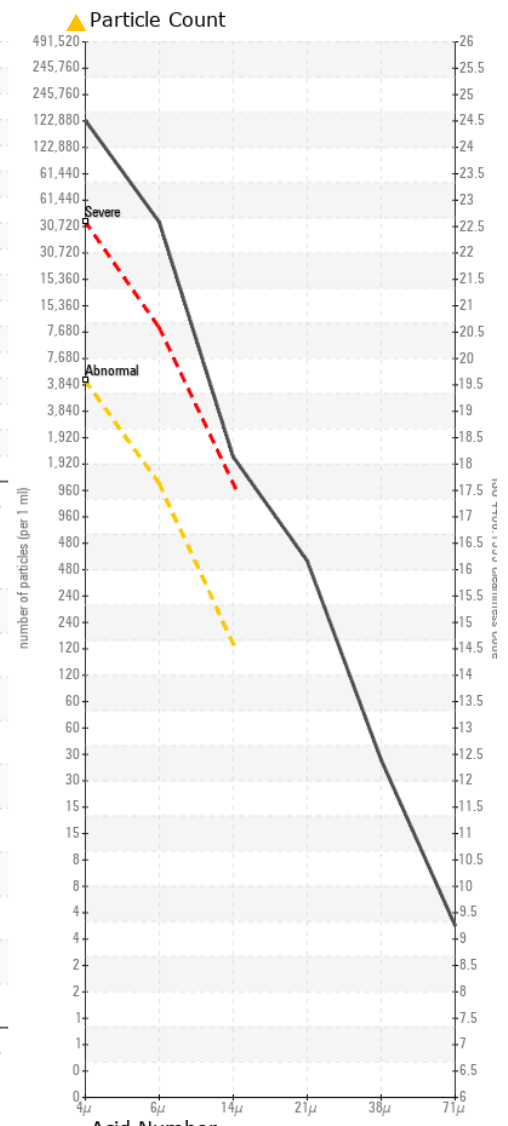
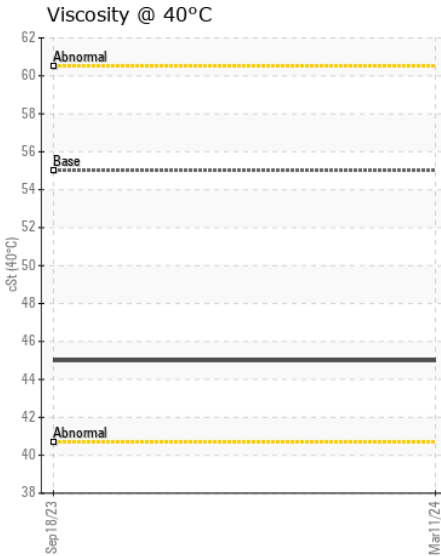
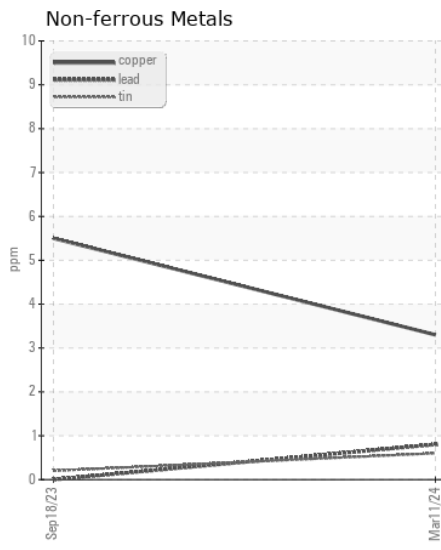
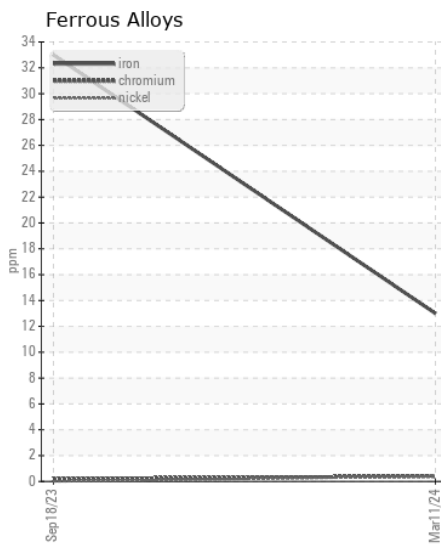
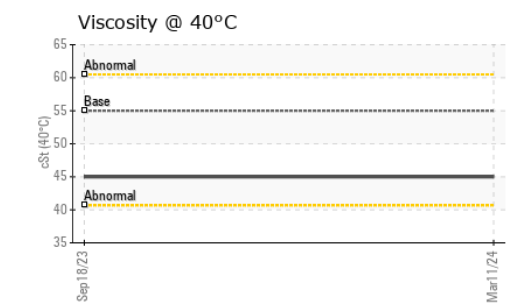
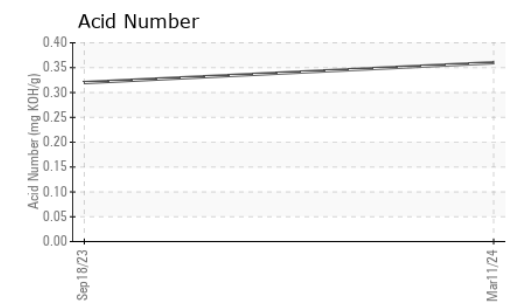
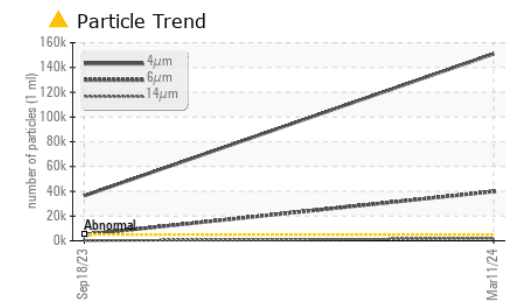
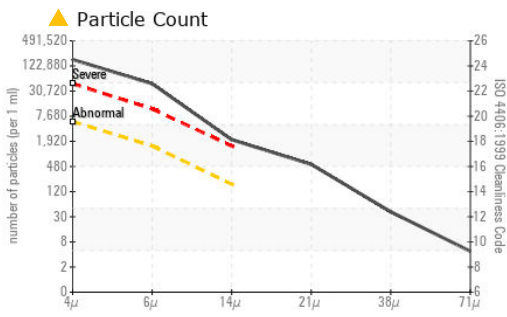
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	1	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 151039	▲ 36359	---
Particles >6µm		ASTM D7647	>1300	▲ 39869	▲ 4969	---
Particles >14µm		ASTM D7647	>160	▲ 1844	159	---
Particles >21µm		ASTM D7647	>40	▲ 474	27	---
Particles >38µm		ASTM D7647	>10	▲ 35	1	---
Particles >71µm		ASTM D7647	>3	▲ 4	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 24/22/18	▲ 22/19/14	---
Silt	scalar	*Visual	NONE	LIGHT	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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	3	---
Boron	ppm	ASTM D5185m		2	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		<1	1	---
Magnesium	ppm	ASTM D5185m		<1	1	---
Calcium	ppm	ASTM D5185m		14	51	---
Phosphorus	ppm	ASTM D5185m		244	180	---
Zinc	ppm	ASTM D5185m		318	208	---
Sulfur	ppm	ASTM D5185m		775	763	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.36	0.32	---
Visc @ 40°C	cSt	ASTM D445	55	45.0	45.0	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP445314 **Received** : 20 Mar 2024
Lab Number : 06124108 **Tested** : 27 Mar 2024
Unique Number : 10938259 **Diagnosed** : 27 Mar 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: PrtCount)

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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)