



VOLVO

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE
ABNORMAL
NORMAL



Area
[8-388971]
Machine Id
16-8116
Component
Front Axle
Fluid
VOLVO WB 102 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

Iron ppm levels are severe. PQ levels are severe. Aluminum ppm levels are noted. Gear wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring.

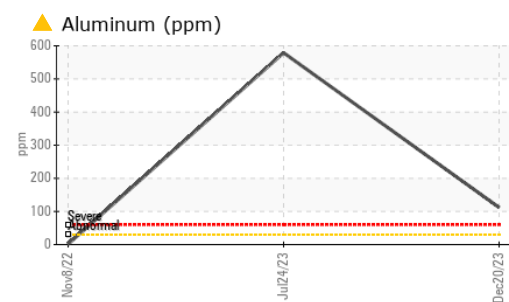
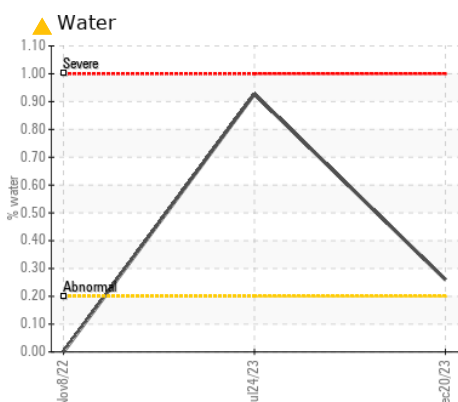
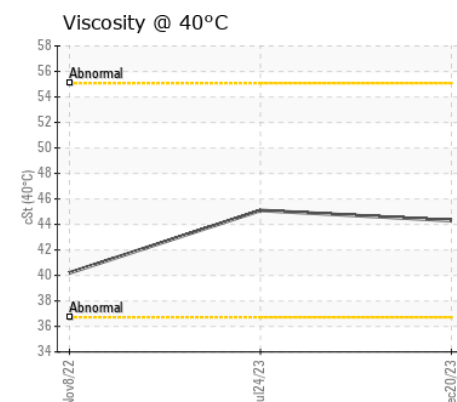
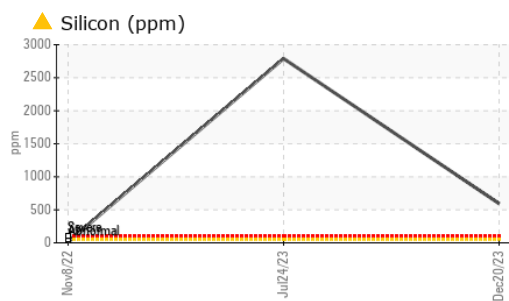
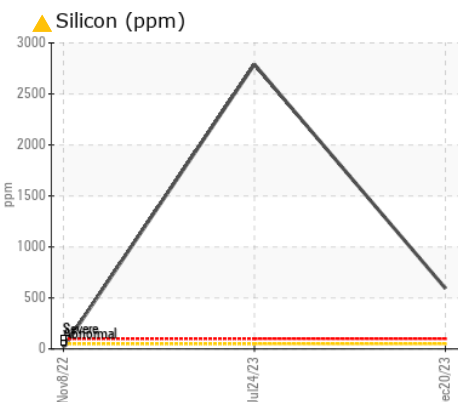
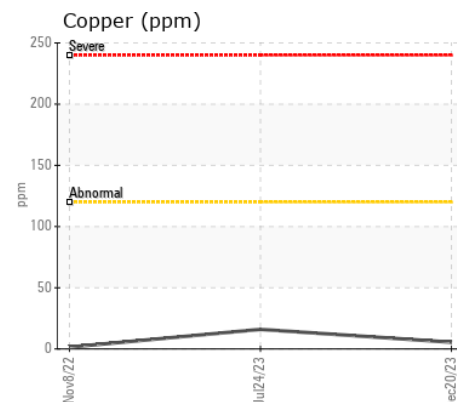
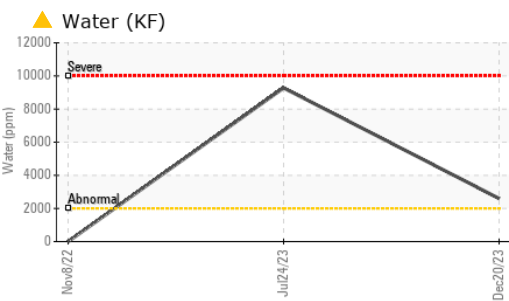
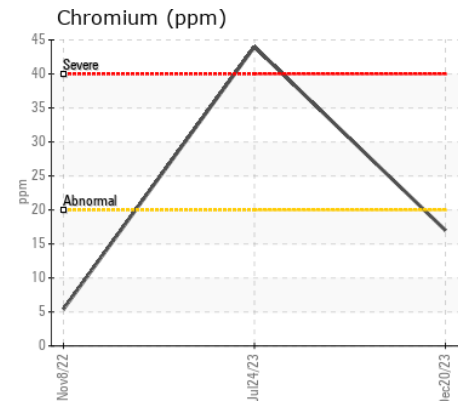
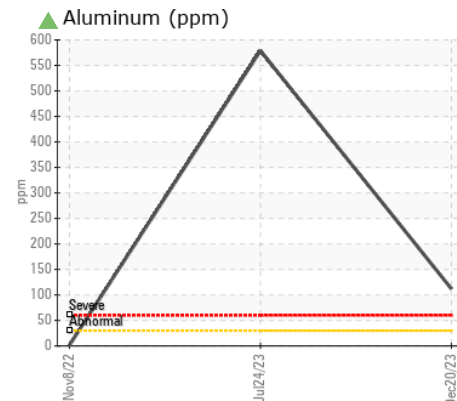
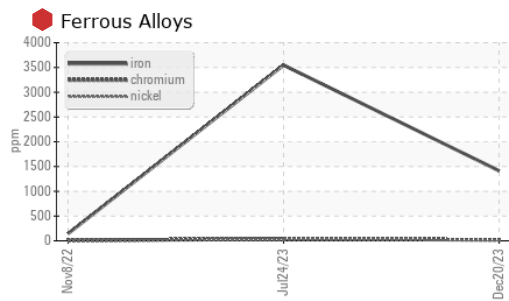
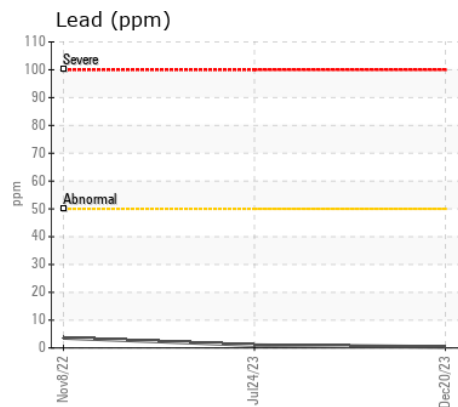
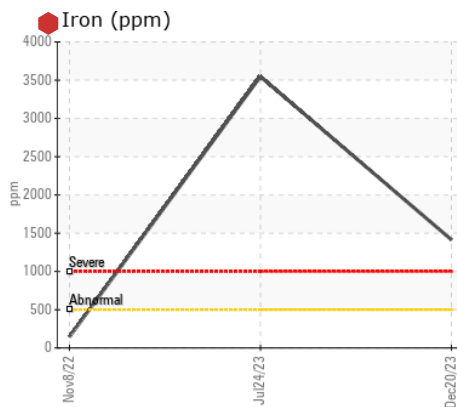
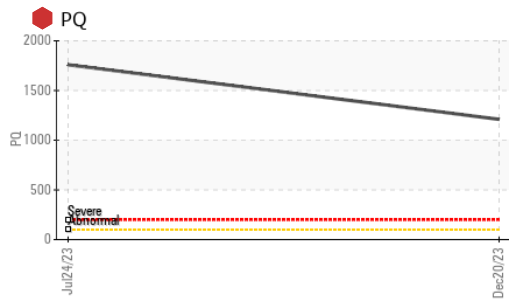
CONTAMINATION

There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP394489	VCP380447	VCP352982
Sample Date		Client Info		20 Dec 2023	24 Jul 2023	08 Nov 2022
Machine Age	hrs	Client Info		3022	1928	1071
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	NORMAL
PQ		ASTM D8184*		1210	1759	---
Iron	ppm	ASTM D5185(m)	>500	1414	3548	146
Chromium	ppm	ASTM D5185(m)	>20	17	44	5
Nickel	ppm	ASTM D5185(m)	>10	8	18	<1
Titanium	ppm	ASTM D5185(m)		7	37	<1
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	112	579	1
Lead	ppm	ASTM D5185(m)	>50	<1	1	4
Copper	ppm	ASTM D5185(m)	>120	6	16	2
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	1	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>50	594	2790	14
Potassium	ppm	ASTM D5185(m)	>20	41	211	3
Water	%	ASTM D6304*	>0.2	0.260	0.927	---
ppm Water	ppm	ASTM D6304*	>2000	2601	9275.6	---
Silt	scalar	Visual*	NONE	LIGHT	LIGHT	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*	>0.2	.2%	.5%	NEG
Sodium	ppm	ASTM D5185(m)		46	208	9
Boron	ppm	ASTM D5185(m)		116	111	118
Barium	ppm	ASTM D5185(m)		0	7	0
Molybdenum	ppm	ASTM D5185(m)		<1	2	3
Manganese	ppm	ASTM D5185(m)		11	36	9
Magnesium	ppm	ASTM D5185(m)		60	221	12
Calcium	ppm	ASTM D5185(m)		4324	6568	4138
Phosphorus	ppm	ASTM D5185(m)		1313	1372	1420
Zinc	ppm	ASTM D5185(m)		1563	1513	1636
Sulfur	ppm	ASTM D5185(m)		3551	3371	3569
Visc @ 40°C	cSt	ASTM D7279(m)		44.3	45.1	40.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VCP394489 **Received** : 22 Jan 2024
Lab Number : 02610375 **Diagnosed** : 23 Jan 2024
Unique Number : 5711461 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KF, PQ)

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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.