



VOLVO

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE
ABNORMAL
ATTENTION



Area

[729036]

Machine Id

VOLVO A40G 342177

Component

Drop Box

Fluid

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)

RECOMMENDATION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

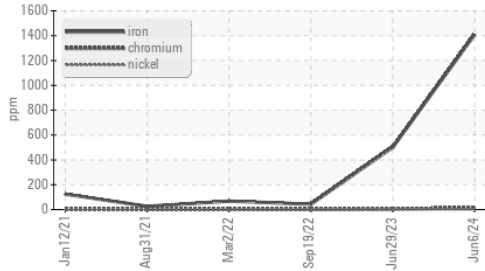
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

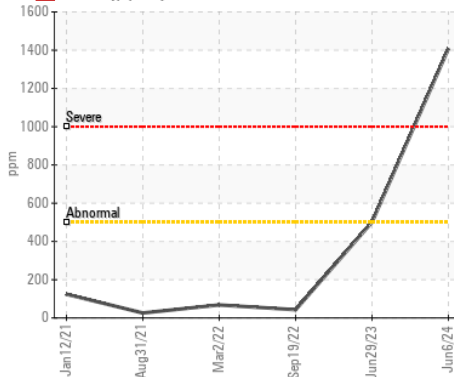
The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP439771	VCP424431	VCP358219
Sample Date		Client Info		06 Jun 2024	29 Jun 2023	19 Sep 2022
Machine Age	hrs	Client Info		11658	10619	9334
Oil Age	hrs	Client Info		3000	2000	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				SEVERE	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>500	▲ 1408	▲ 501	43
Chromium	ppm	ASTM D5185m	>20	14	5	<1
Nickel	ppm	ASTM D5185m	>10	2	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>30	● 9	8	16
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m	>30	5	<1	<1
Tin	ppm	ASTM D5185m	>20	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	▲ 76	▲ 53	7
Potassium	ppm	ASTM D5185m	>20	3	0	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	LIGHT	NONE
Debris	scalar	*Visual	NONE	▲ MODER	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	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		1	<1	0
Boron	ppm	ASTM D5185m	111	111	129	184
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.9	4	3	4
Manganese	ppm	ASTM D5185m	0.0	12	6	2
Magnesium	ppm	ASTM D5185m	39	2	2	6
Calcium	ppm	ASTM D5185m	93	34	78	34
Phosphorus	ppm	ASTM D5185m	920	1582	1735	1001
Zinc	ppm	ASTM D5185m	104	214	203	81
Sulfur	ppm	ASTM D5185m	20179	18472	23030	29041
Visc @ 40°C	cSt	ASTM D445	333	● 54.3	● 52.26	● 302

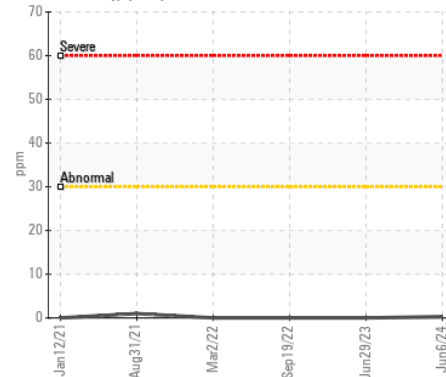
▲ Ferrous Alloys



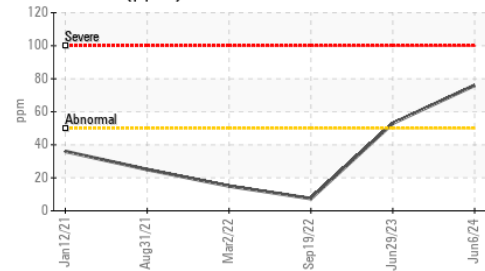
▲ Iron (ppm)



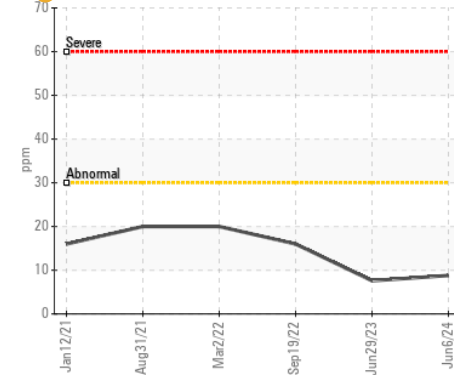
Lead (ppm)



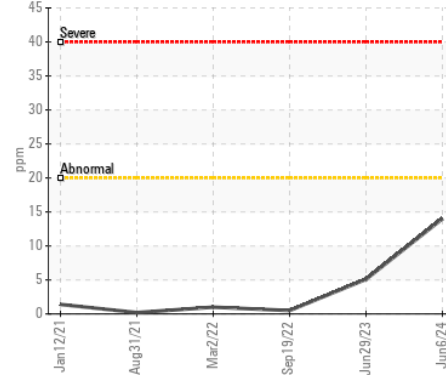
▲ Silicon (ppm)



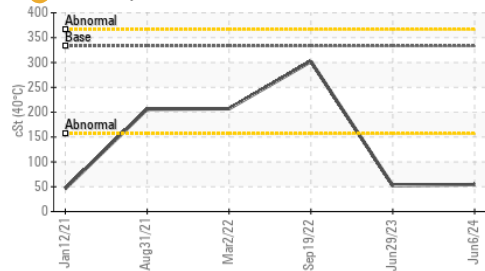
● Aluminum (ppm)



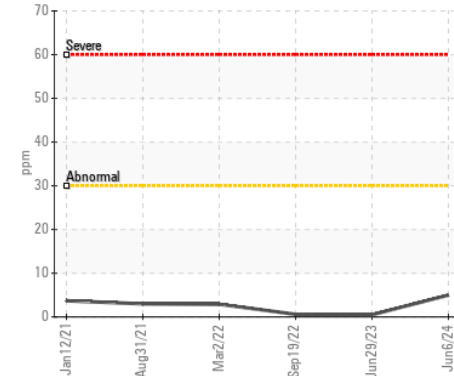
Chromium (ppm)



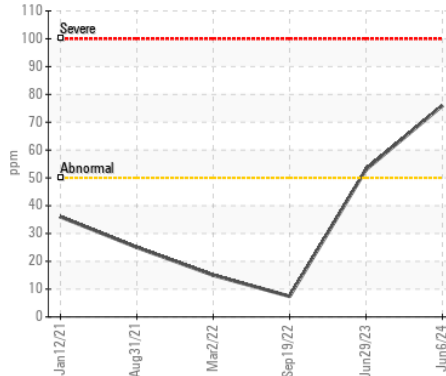
● Viscosity @ 40°C



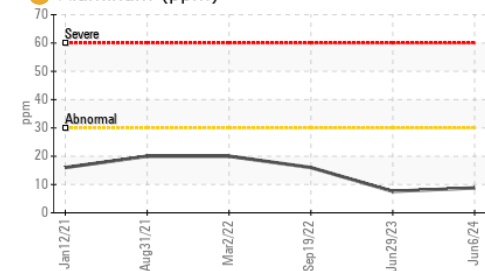
Copper (ppm)



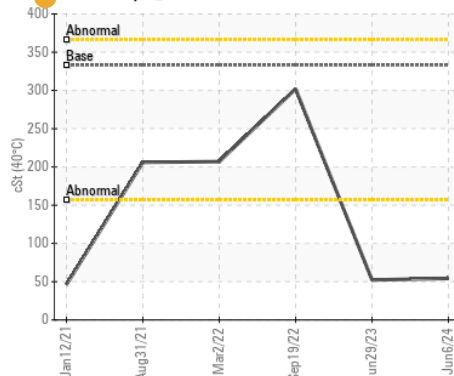
▲ Silicon (ppm)



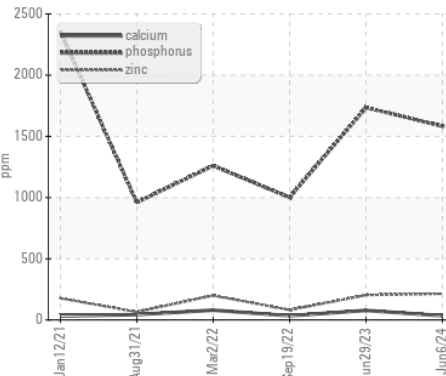
● Aluminum (ppm)



● Viscosity @ 40°C



Additives



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP439771
Lab Number : 06238194
Unique Number : 11127028
Test Package : MOB 1
Received : 16 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 18 Jul 2024 - Sean Felton

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Certificate L2367
 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)