



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
VOLVO A45G 353418
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- 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		VCP438448	VCP433540	---
Sample Date		Client Info		27 Jan 2024	20 Oct 2023	---
Machine Age	hrs	Client Info		1472	997	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				ATTENTION	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	15	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>2	1	2	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	3	---
Lead	ppm	ASTM D5185m	>40	1	0	---
Copper	ppm	ASTM D5185m	>330	2	9	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
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.

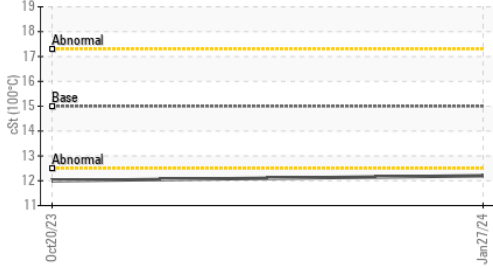
Silicon	ppm	ASTM D5185m	>25	6	12	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Fuel	%	ASTM D3524	>6.0	<1.0	0.4	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	6.3	6.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	20.8	---
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	>0.2	NEG	NEG	---

FLUID CONDITION

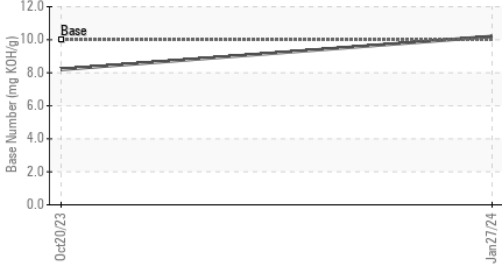
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	4	---
Boron	ppm	ASTM D5185m	2.5	54	66	---
Barium	ppm	ASTM D5185m	0.0	0	<1	---
Molybdenum	ppm	ASTM D5185m	0.7	44	56	---
Manganese	ppm	ASTM D5185m	0.0	<1	<1	---
Magnesium	ppm	ASTM D5185m	256	498	600	---
Calcium	ppm	ASTM D5185m	2057	1574	1762	---
Phosphorus	ppm	ASTM D5185m	935	966	1102	---
Zinc	ppm	ASTM D5185m	1223	1105	1314	---
Sulfur	ppm	ASTM D5185m	4079	2970	3572	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	18.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.2	8.2	---
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 12.2	▲ 12.0	---

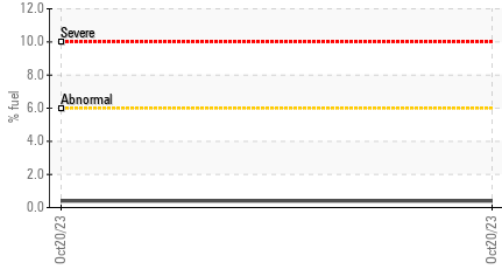
▲ Viscosity @ 100°C



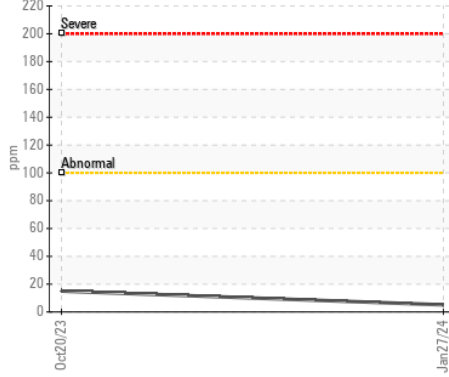
Base Number



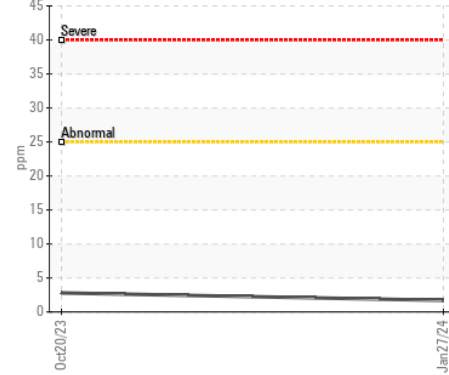
Fuel Dilution



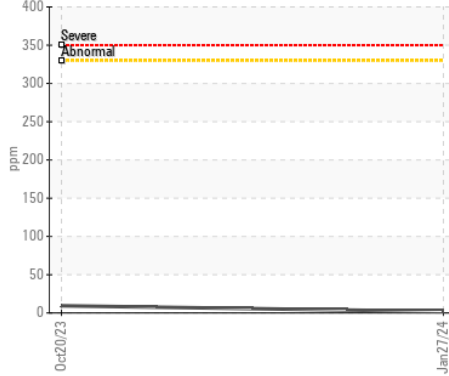
Iron (ppm)



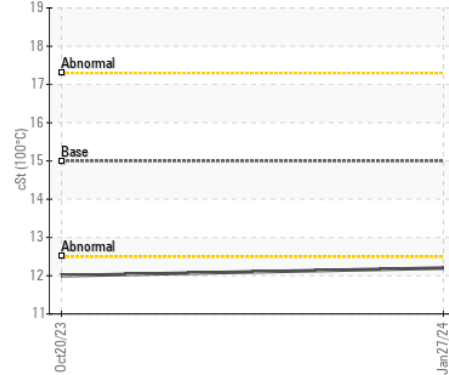
Aluminum (ppm)



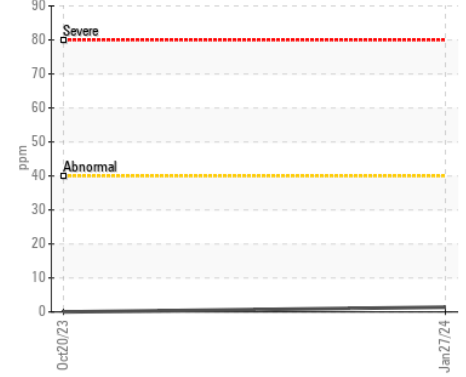
Copper (ppm)



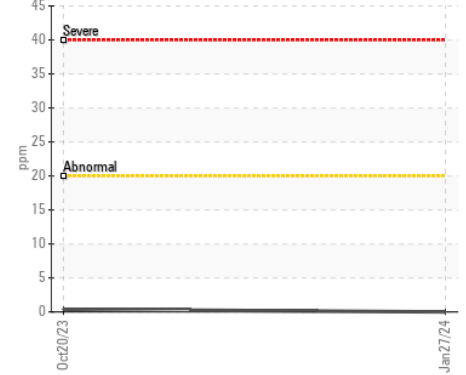
▲ Viscosity @ 100°C



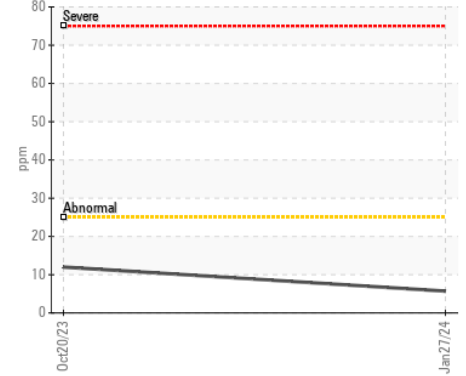
Lead (ppm)



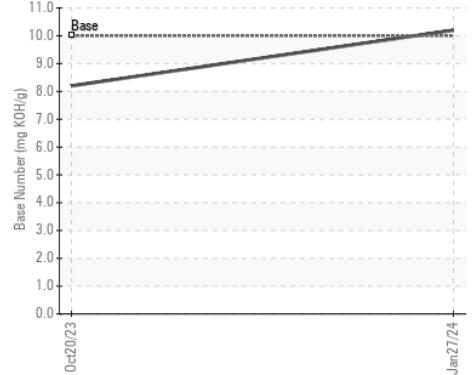
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP438448 **Received** : 31 Jan 2024
Lab Number : 06075463 **Diagnosed** : 01 Feb 2024
Unique Number : 10857554 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

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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)