



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area
[565037]
Machine Id
VOLVO A45G 353312
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		VCP454838	VCP396469	---
Sample Date		Client Info		23 May 2024	07 Nov 2023	---
Machine Age	hrs	Client Info		2980	2546	---
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	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

Valve wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	10	24	---
Chromium	ppm	ASTM D5185m	>20	1	<1	---
Nickel	ppm	ASTM D5185m	>2	▲ 8	4	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	1	0	---
Aluminum	ppm	ASTM D5185m	>25	2	1	---
Lead	ppm	ASTM D5185m	>40	1	2	---
Copper	ppm	ASTM D5185m	>330	26	30	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

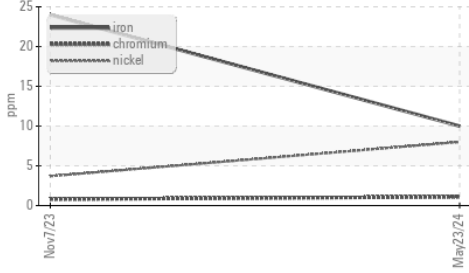
Silicon	ppm	ASTM D5185m	>25	6	8	---
Potassium	ppm	ASTM D5185m	>20	1	0	---
Fuel	%	ASTM D3524	>6.0	0.3	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.9	---
Nitration	Abs/cm	*ASTM D7624	>20	7.4	10.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	23.5	---
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

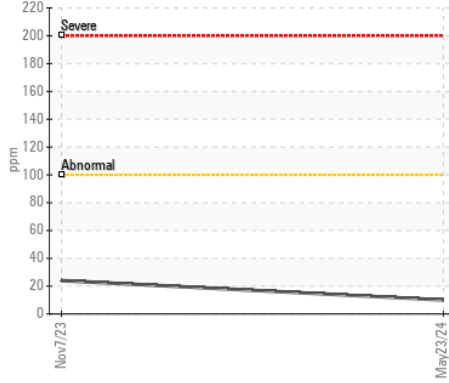
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	3	5	---
Boron	ppm	ASTM D5185m	250	44	<1	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	47	66	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	450	541	900	---
Calcium	ppm	ASTM D5185m	3000	1574	1215	---
Phosphorus	ppm	ASTM D5185m	1150	953	961	---
Zinc	ppm	ASTM D5185m	1350	1087	1256	---
Sulfur	ppm	ASTM D5185m	4250	3354	2624	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	18.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	5.8	---
Visc @ 100°C	cSt	ASTM D445	14.4	● 12.4	12.8	---

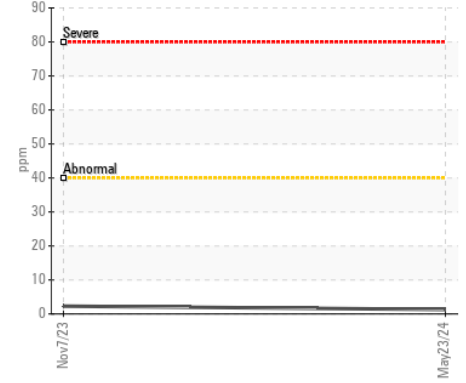
▲ Ferrous Alloys



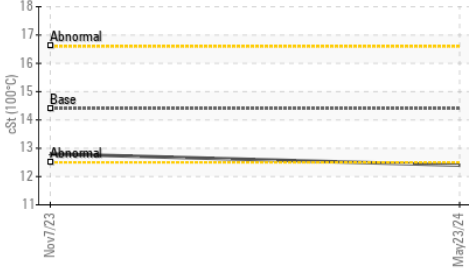
Iron (ppm)



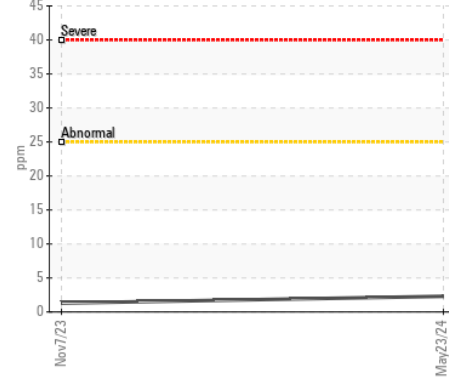
Lead (ppm)



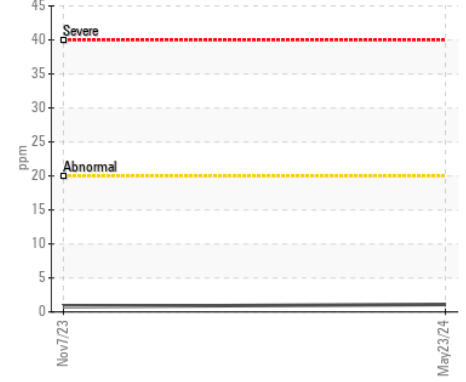
● Viscosity @ 100°C



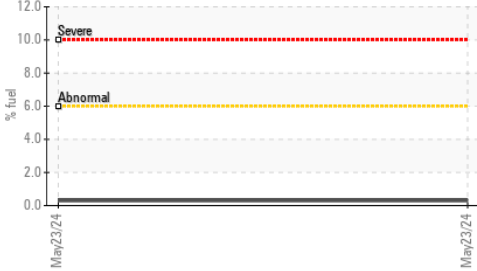
Aluminum (ppm)



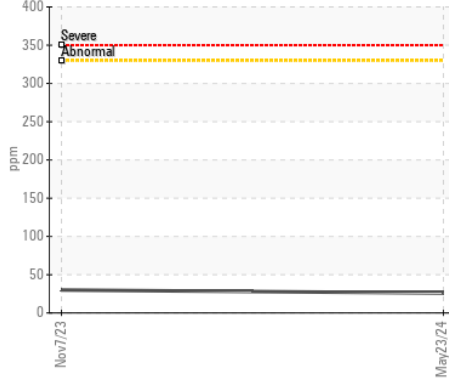
Chromium (ppm)



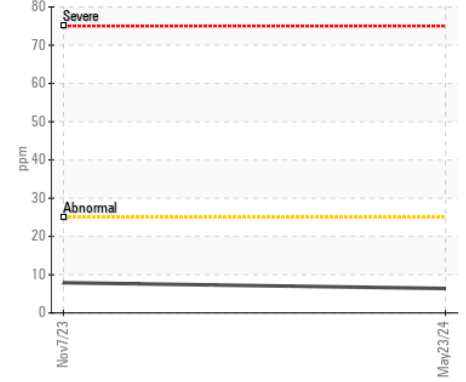
Fuel Dilution



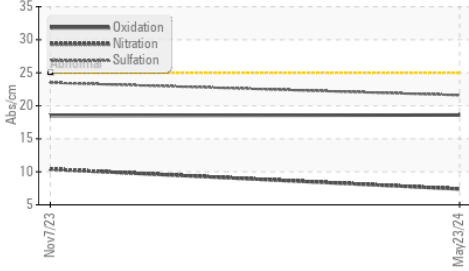
Copper (ppm)



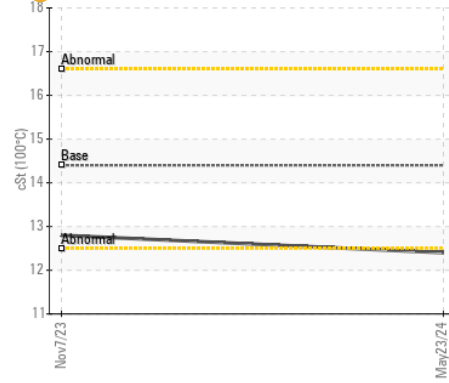
Silicon (ppm)



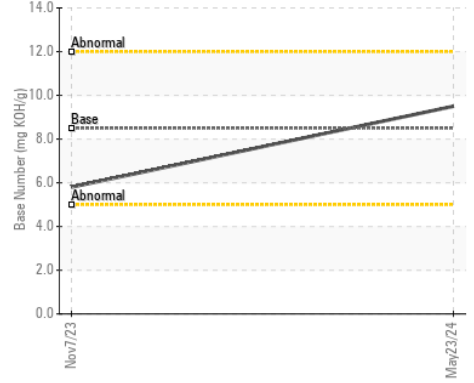
FT-IR (Direct Trend)



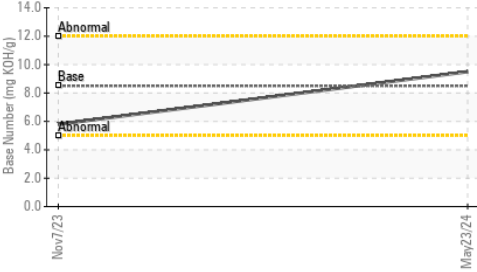
● Viscosity @ 100°C



Base Number



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP454838 **Received** : 29 May 2024
Lab Number : 06193675 **Tested** : 31 May 2024
Unique Number : 11050427 **Diagnosed** : 31 May 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

ALTA EQUIPMENT COMPANY
 5151 DR MARTIN LUTHER KING BLVD
 FORT MYERS, FL
 US 33905
 Contact: TODD LARK
 tlark@altaequipfl.com

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)

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