MOB I

VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
[SWO-072114 APAC ALA]
Machine Id
VOLVO EC350EL 314549
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.

WEAR

All component wear rates are normal.

CONTAMINATION

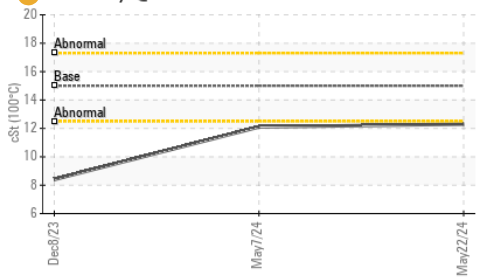
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

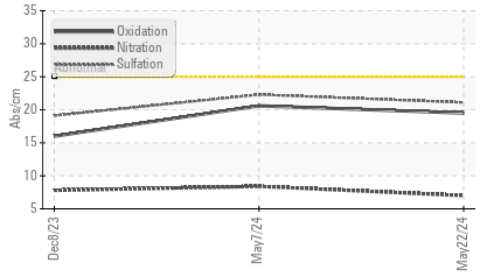
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP453835	VCP443247	VCP430855
Sample Date		Client Info		22 May 2024	07 May 2024	08 Dec 2023
Machine Age	hrs	Client Info		4555	1951	1449
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	3	8	5
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	1
Lead	ppm	ASTM D5185m	>20	<1	2	<1
Copper	ppm	ASTM D5185m	>15	1	▲ 21	▲ 41
Tin	ppm	ASTM D5185m	>10	<1	2	1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	7	11	7
Potassium	ppm	ASTM D5185m	>20	<1	2	2
Fuel		WC Method	>6.0	<1.0	1.1	▲ 13.7
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.4	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	22.3	19.1
Silt	scalar	*Visual	NONE	NONE	NONE	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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	0	0
Boron	ppm	ASTM D5185m	2.5	54	46	61
Barium	ppm	ASTM D5185m	0.0	0	2	11
Molybdenum	ppm	ASTM D5185m	0.7	43	50	71
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	543	476	462
Calcium	ppm	ASTM D5185m	2057	1670	1684	1312
Phosphorus	ppm	ASTM D5185m	935	909	888	659
Zinc	ppm	ASTM D5185m	1223	1129	1027	817
Sulfur	ppm	ASTM D5185m	4079	3367	2886	2842
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.5	20.6	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.6	7.7	7.6
Visc @ 100°C	cSt	ASTM D445	15.0	12.3	12.1	▲ 8.4

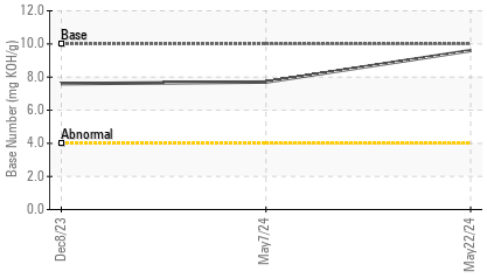
Viscosity @ 100°C



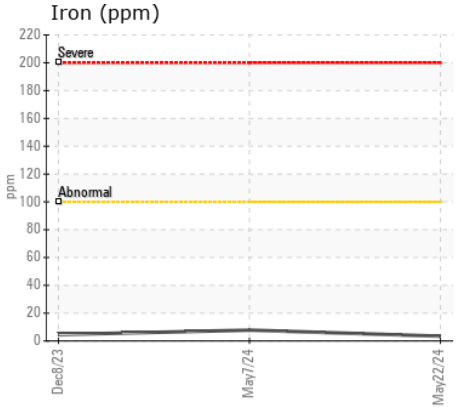
FT-IR (Direct Trend)



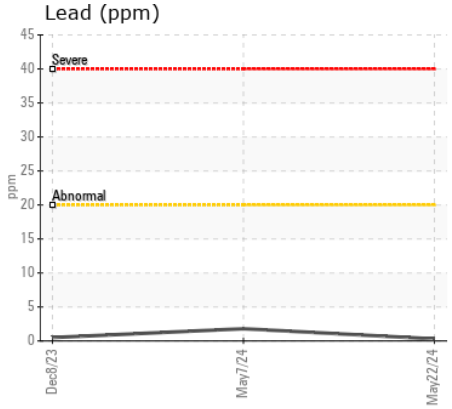
Base Number



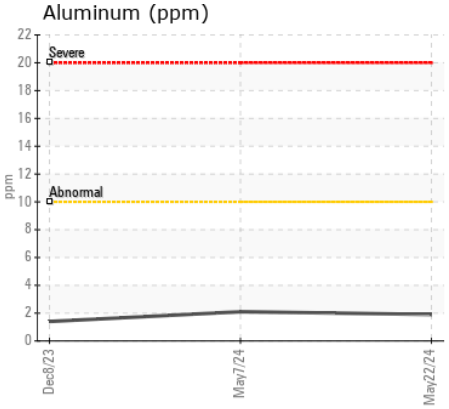
Iron (ppm)



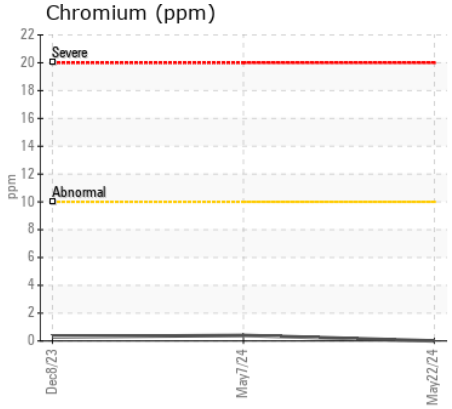
Lead (ppm)



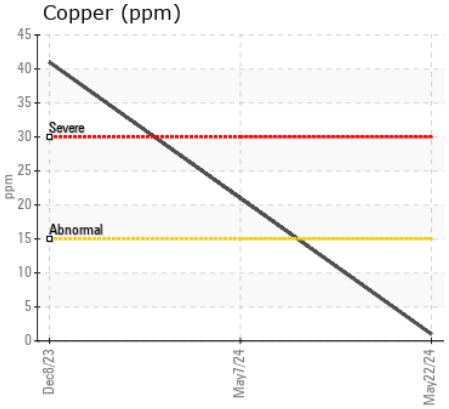
Aluminum (ppm)



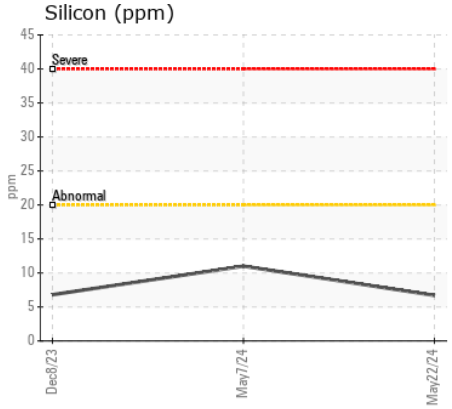
Chromium (ppm)



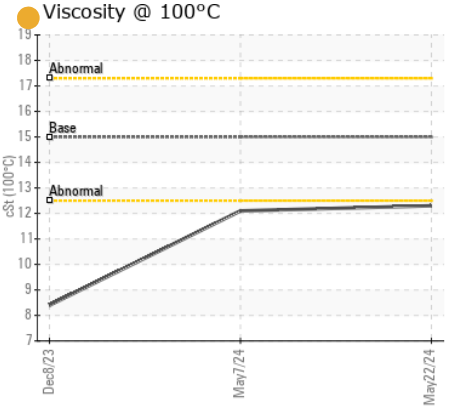
Copper (ppm)



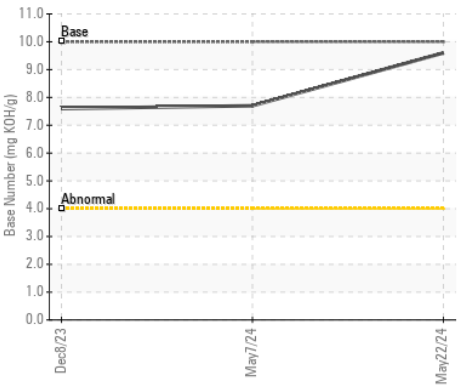
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP453835
Lab Number : 06190152
Unique Number : 11046904
Test Package : MOB 1 (Additional Tests: TBN)

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Angela Borella

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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