



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
VOLVO A40G 353284
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (13 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		ML0001344	ML0001192	VCP413784
Sample Date		Client Info		14 Jun 2024	08 Apr 2024	14 Sep 2023
Machine Age	hrs	Client Info		1595	1102	592
Oil Age	hrs	Client Info		1595	1102	0
Filter Age	hrs	Client Info		1595	1102	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	8	18	19
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	4	8	2
Titanium	ppm	ASTM D5185m		<1	2	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	2	3	3
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>20	▲ 55	▲ 246	380
Tin	ppm	ASTM D5185m	>20	<1	2	3
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

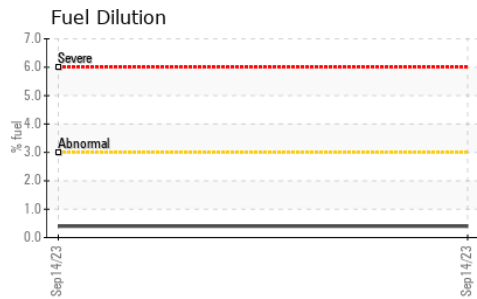
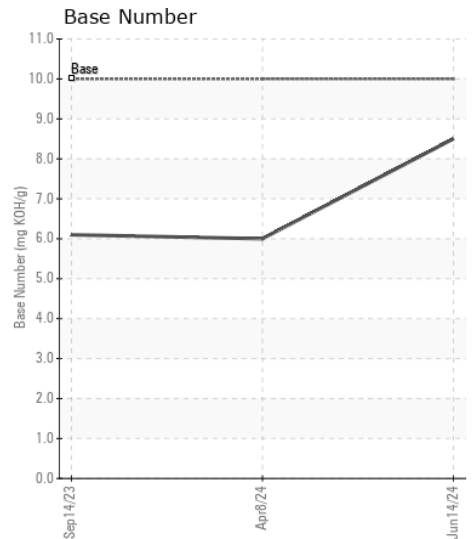
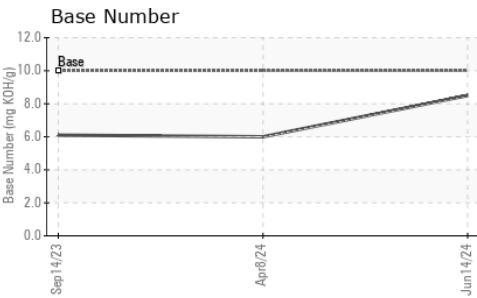
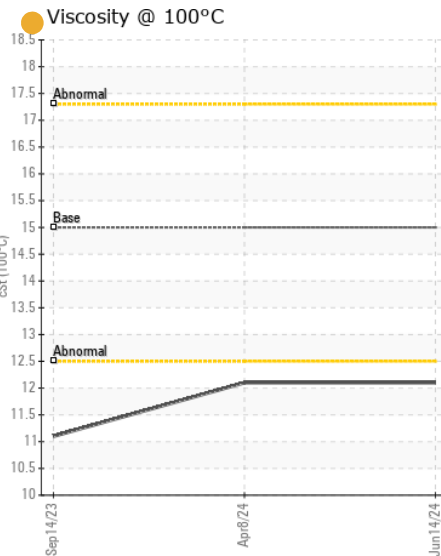
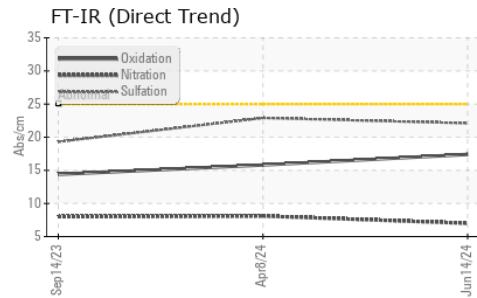
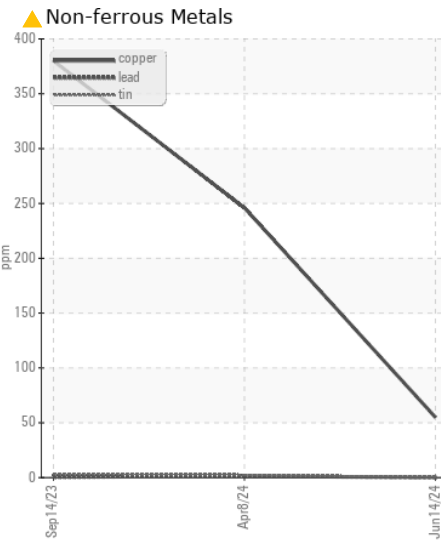
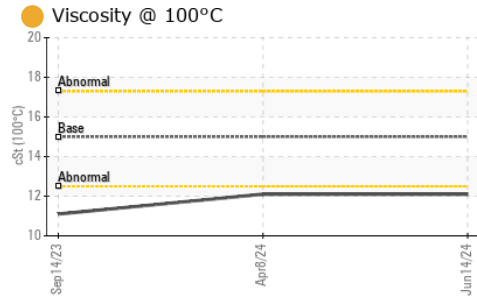
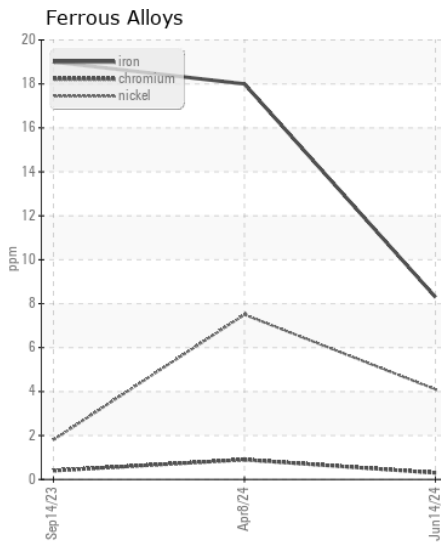
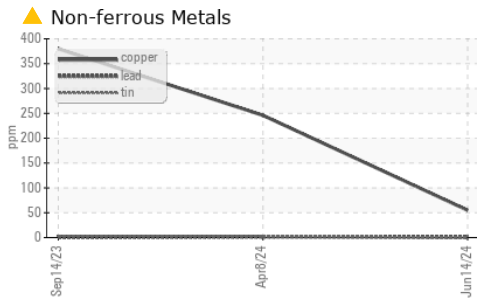
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	7	11	26
Potassium	ppm	ASTM D5185m	>20	1	2	4
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	0.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.1	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.9	19.3
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	>0.2	NEG	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		0	0	3
Boron	ppm	ASTM D5185m	2.5	115	379	68
Barium	ppm	ASTM D5185m	0.0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0.7	63	84	63
Manganese	ppm	ASTM D5185m	0.0	<1	2	3
Magnesium	ppm	ASTM D5185m	256	534	364	236
Calcium	ppm	ASTM D5185m	2057	1561	1465	1949
Phosphorus	ppm	ASTM D5185m	935	908	1101	1031
Zinc	ppm	ASTM D5185m	1223	1119	1174	1266
Sulfur	ppm	ASTM D5185m	4079	2821	3399	4021
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	15.8	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.5	6.0	6.1
Visc @ 100°C	cSt	ASTM D445	15.0	● 12.1	● 12.1	▲ 11.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001344 **Received** : 20 Jun 2024
Lab Number : 06216432 **Tested** : 23 Jun 2024
Unique Number : 11089296 **Diagnosed** : 23 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, 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)