



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
VOLVO EC750E 314256
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (14 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		ML0002197	---	---
Sample Date		Client Info		26 Jun 2024	---	---
Machine Age	days	Client Info		472	---	---
Oil Age	days	Client Info		472	---	---
Filter Age	days	Client Info		472	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

Iron	ppm	ASTM D5185m	>100	15	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>2	1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>40	4	---	---
Copper	ppm	ASTM D5185m	>330	▲ 443	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

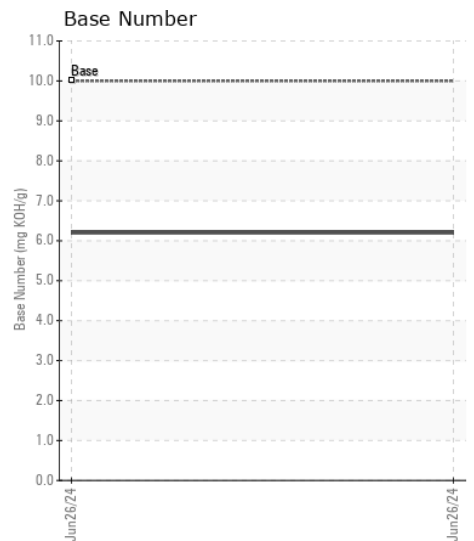
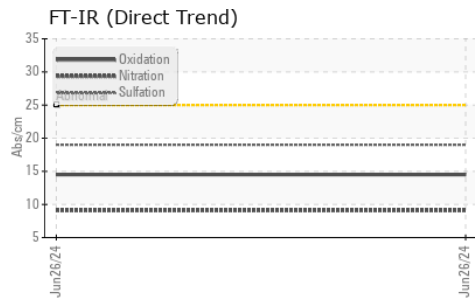
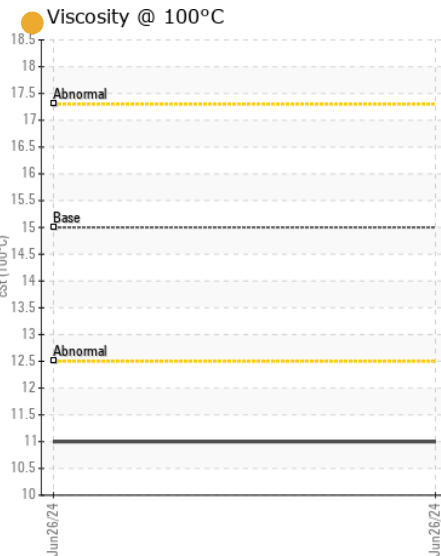
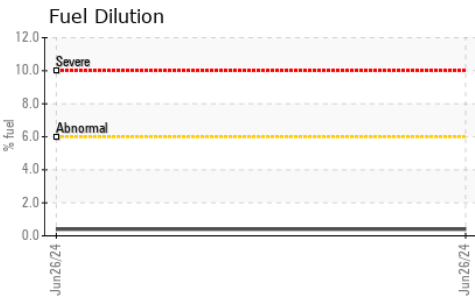
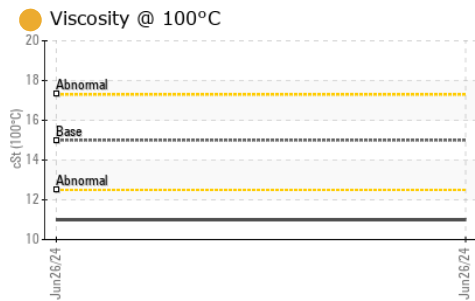
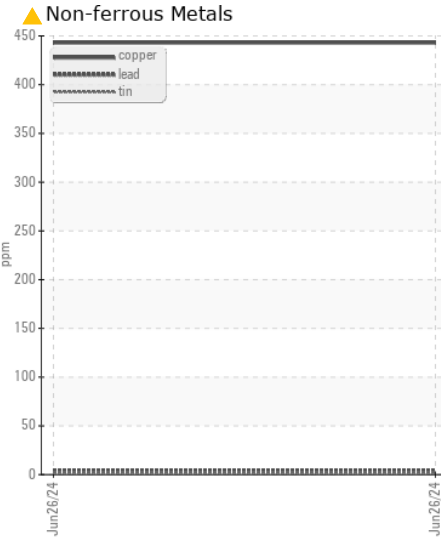
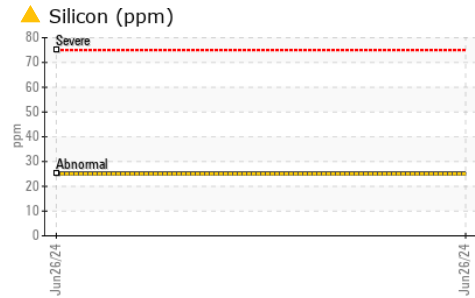
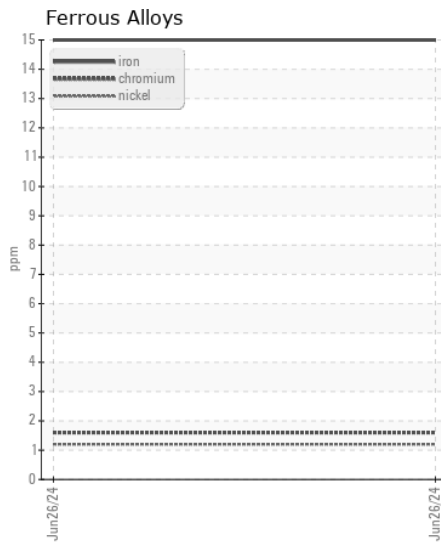
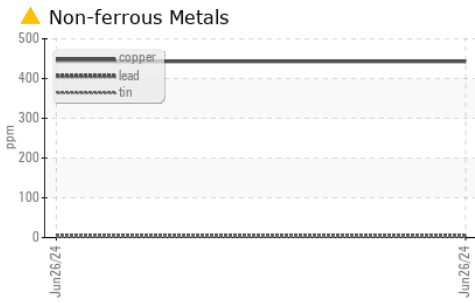
Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	▲ 25	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel	%	ASTM D3524	>6.0	0.4	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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		5	---	---
Boron	ppm	ASTM D5185m	2.5	58	---	---
Barium	ppm	ASTM D5185m	0.0	<1	---	---
Molybdenum	ppm	ASTM D5185m	0.7	82	---	---
Manganese	ppm	ASTM D5185m	0.0	2	---	---
Magnesium	ppm	ASTM D5185m	256	54	---	---
Calcium	ppm	ASTM D5185m	2057	2285	---	---
Phosphorus	ppm	ASTM D5185m	935	974	---	---
Zinc	ppm	ASTM D5185m	1223	1103	---	---
Sulfur	ppm	ASTM D5185m	4079	3812	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.2	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	● 11.0	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0002197
Lab Number : 06234234
Unique Number : 11123068
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

MCCLUNG-LOGAN EQUIPMENT CO - BALTIMORE
 4601 WASHINGTON BOULEVARD
 BALTIMORE, MD
 US 21227

Contact: MARK CIULLA
 mciulla@mcclung-logan.com
 T: (410)242-6500
 F: (410)242-7835

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)