



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
[W02008105]
 Machine Id
VOLVO L150H EQ0023433 (S/N 7260)
 Component
Rear Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (14 GAL)

DIAGNOSIS

▲ 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. (Customer Sample Comment: W02008105)

▲ 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). All other metal levels are typical for a new component breaking in.

● 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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	ML0001070	---	---
Sample Date	Client Info	19 Mar 2024	---	---
Machine Age	hrs Client Info	542	---	---
Oil Age	hrs Client Info	542	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >100	12	---	---
Chromium ppm	ASTM D5185m >10	0	---	---
Nickel ppm	ASTM D5185m >10	<1	---	---
Titanium ppm	ASTM D5185m	0	---	---
Silver ppm	ASTM D5185m >2	0	---	---
Aluminum ppm	ASTM D5185m >10	3	---	---
Lead ppm	ASTM D5185m >20	<1	---	---
Copper ppm	ASTM D5185m >15	▲ 440	---	---
Tin ppm	ASTM D5185m >10	2	---	---
Vanadium ppm	ASTM D5185m	0	---	---
Cadmium ppm	ASTM D5185m	<1	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 2.5	67	---	---
Barium ppm	ASTM D5185m 0.0	<1	---	---
Molybdenum ppm	ASTM D5185m 0.7	87	---	---
Manganese ppm	ASTM D5185m 0.0	2	---	---
Magnesium ppm	ASTM D5185m 256	55	---	---
Calcium ppm	ASTM D5185m 2057	2124	---	---
Phosphorus ppm	ASTM D5185m 935	988	---	---
Zinc ppm	ASTM D5185m 1223	1189	---	---
Sulfur ppm	ASTM D5185m 4079	4398	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >20	21	---	---
Sodium ppm	ASTM D5185m	3	---	---
Potassium ppm	ASTM D5185m >20	4	---	---
Fuel %	ASTM D3524 >6.0	0.7	---	---

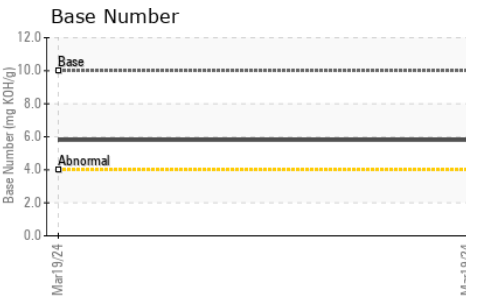
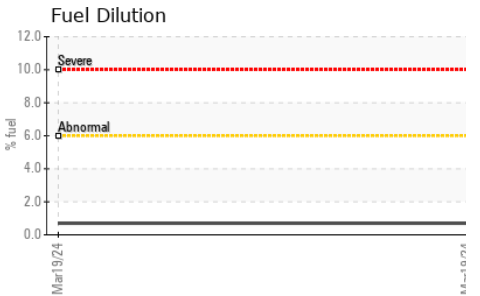
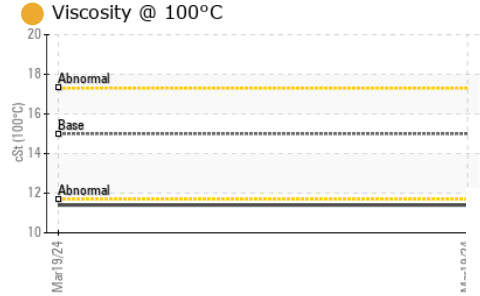
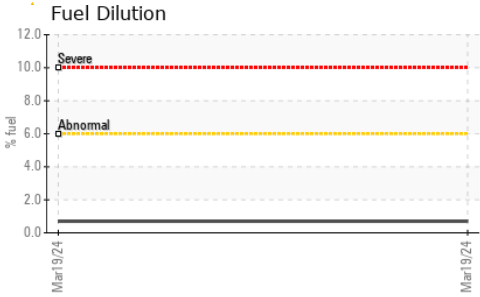
INFRA-RED

method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	0.1	---	---
Nitration Abs./cm	*ASTM D7624 >20	9.0	---	---
Sulfation Abs./1mm	*ASTM D7415 >30	19.3	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs./1mm	*ASTM D7414 >25	14.6	---	---
Base Number (BN) mg KOH/g	ASTM D2896 10	5.8	---	---

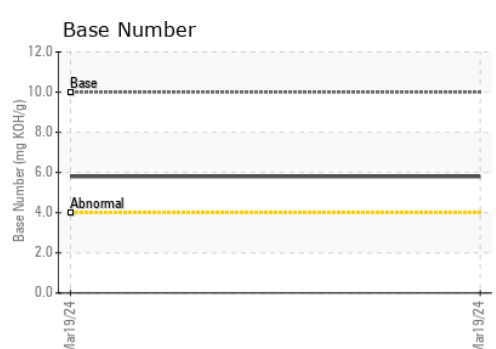
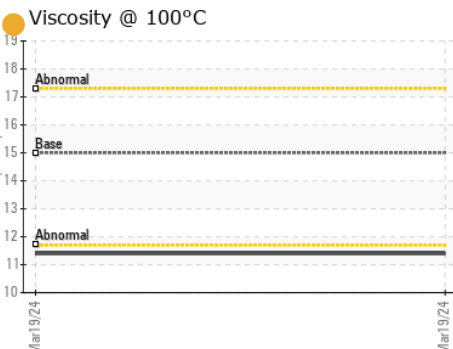
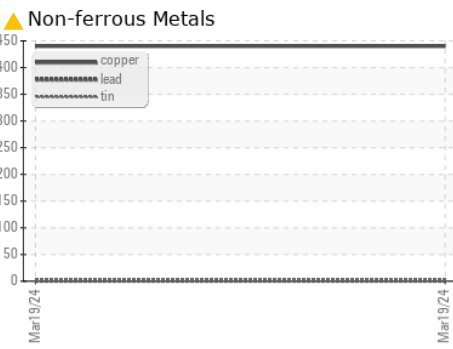
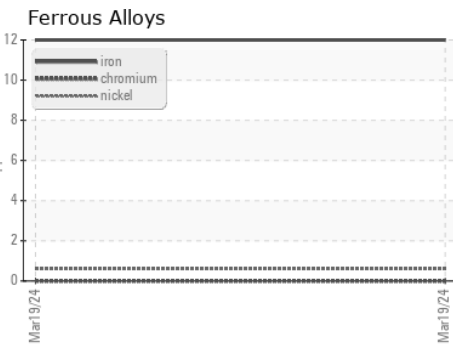
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
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	>0.1	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.0	● 11.4	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001070 **Received** : 20 Mar 2024
Lab Number : 06124194 **Tested** : 23 Mar 2024
Unique Number : 10938345 **Diagnosed** : 23 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, 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)