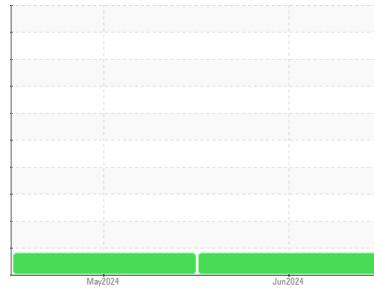




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
[W02008461]
 Machine Id
VOLVO EC350E 314605
 Component
Diesel Engine
 Fluid
{not provided} (14 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. (Customer Sample Comment: W02008461)

Wear

The copper level has decreased, but is still abnormal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		ML0001145	ML0001065	---
Sample Date	Client Info		21 Jun 2024	07 May 2024	---
Machine Age	hrs	Client Info	1052	500	---
Oil Age	hrs	Client Info	552	500	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			MARGINAL	ABNORMAL	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	5	18	---
Chromium	ppm	ASTM D5185m >10	0	<1	---
Nickel	ppm	ASTM D5185m >10	0	0	---
Titanium	ppm	ASTM D5185m	<1	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >10	<1	2	---
Lead	ppm	ASTM D5185m >20	0	<1	---
Copper	ppm	ASTM D5185m >15	▲ 47	▲ 291	---
Tin	ppm	ASTM D5185m >10	0	2	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	26	---
Barium	ppm	ASTM D5185m	0	<1	---
Molybdenum	ppm	ASTM D5185m	55	91	---
Manganese	ppm	ASTM D5185m	<1	3	---
Magnesium	ppm	ASTM D5185m	559	23	---
Calcium	ppm	ASTM D5185m	1648	2289	---
Phosphorus	ppm	ASTM D5185m	971	1014	---
Zinc	ppm	ASTM D5185m	1171	1180	---
Sulfur	ppm	ASTM D5185m	3452	3824	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	7	27	---
Sodium	ppm	ASTM D5185m	2	3	---
Potassium	ppm	ASTM D5185m >20	0	2	---
Fuel	%	ASTM D3524 >6.0	<1.0	0.6	---
Glycol	%	*ASTM D2982	NEG	NEG	---

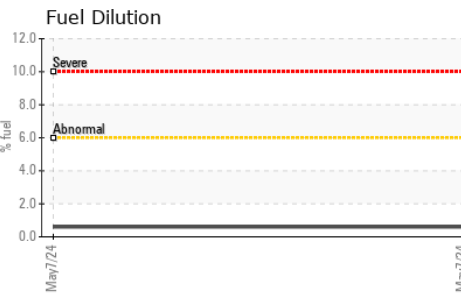
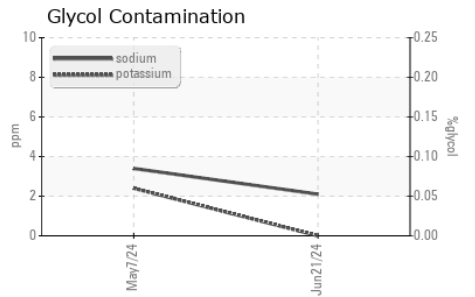
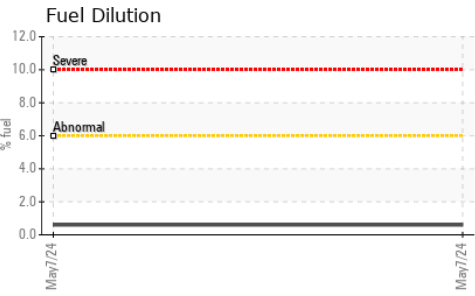
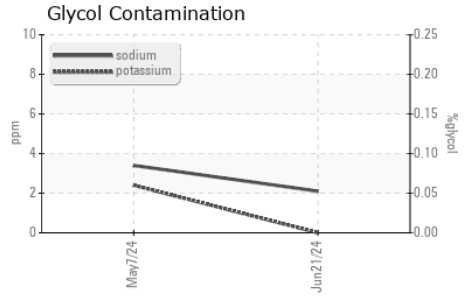
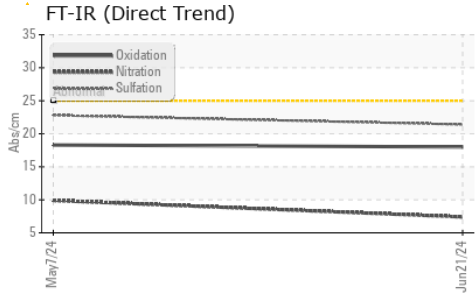
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	7.4	9.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.4	22.8	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.0	18.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.6	4.0	---

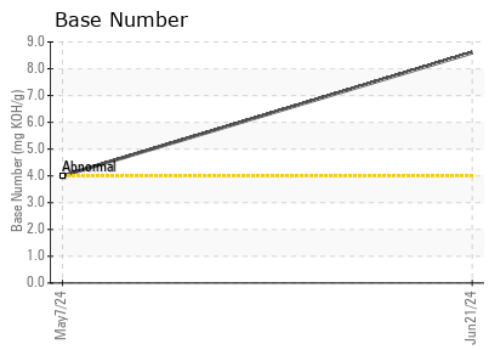
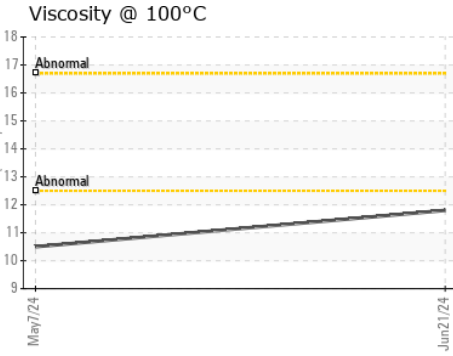
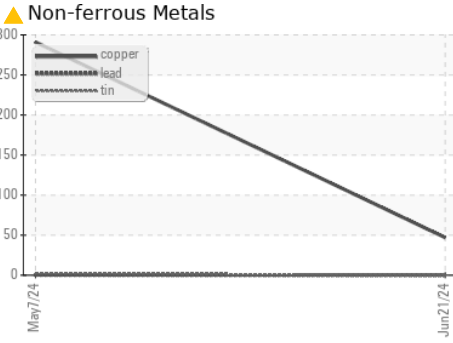
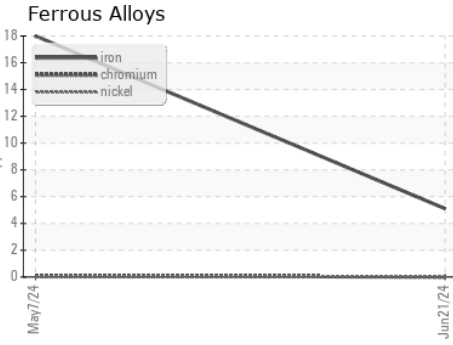
OIL ANALYSIS REPORT



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	11.8	10.5	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001145 **Received** : 24 Jun 2024
Lab Number : 06219113 **Tested** : 26 Jun 2024
Unique Number : 11097310 **Diagnosed** : 26 Jun 2024 - Jonathan Hester
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)