



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**VOLVO EC350E 314263**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (--- GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: 500 hour service )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0886266</b>	VCP358636	---
Sample Date		Client Info		<b>12 Jan 2024</b>	31 Mar 2022	---
Machine Age	hrs	Client Info		<b>3511</b>	1124	---
Oil Age	hrs	Client Info		<b>500</b>	0	---
Filter Age	hrs	Client Info		<b>500</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ATTENTION</b>	ATTENTION	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>6</b>	8	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	1	---
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Copper	ppm	ASTM D5185m	>15	<b>&lt;1</b>	4	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

There is no indication of any contamination in the oil.

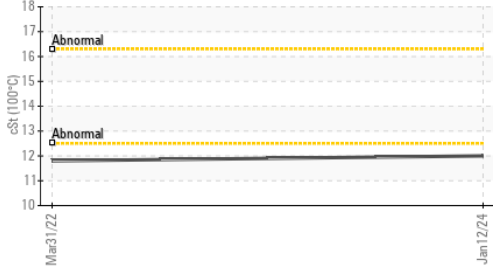
Silicon	ppm	ASTM D5185m	>20	<b>7</b>	7	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	---
Fuel	%	ASTM D3524	>6.0	<b>&lt;1.0</b>	1.1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	9.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.0</b>	23.1	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

## FLUID CONDITION

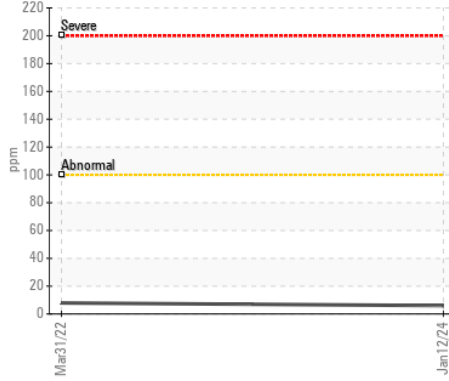
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>118	<b>&lt;1</b>	1	---
Boron	ppm	ASTM D5185m		<b>256</b>	36	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>128</b>	45	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>658</b>	482	---
Calcium	ppm	ASTM D5185m		<b>1620</b>	1638	---
Phosphorus	ppm	ASTM D5185m		<b>773</b>	986	---
Zinc	ppm	ASTM D5185m		<b>893</b>	1100	---
Sulfur	ppm	ASTM D5185m		<b>2573</b>	2389	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	21.9	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.4</b>	9.4	---
Visc @ 100°C	cSt	ASTM D445		<b>▲ 12.0</b>	▲ 11.8	---

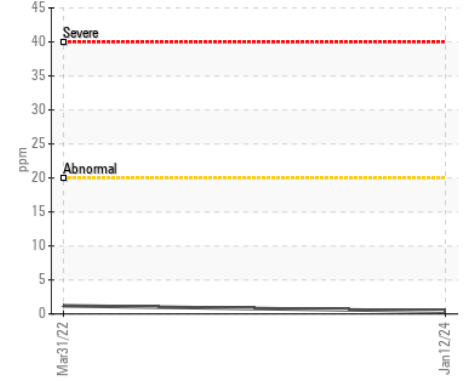
▲ Viscosity @ 100°C



Iron (ppm)



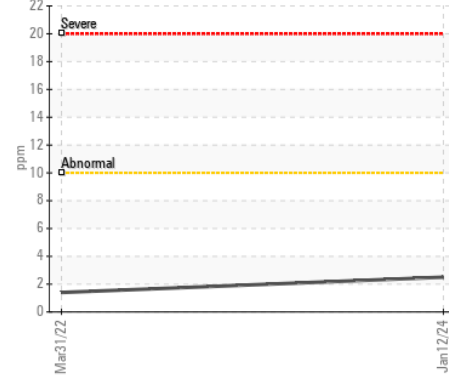
Lead (ppm)



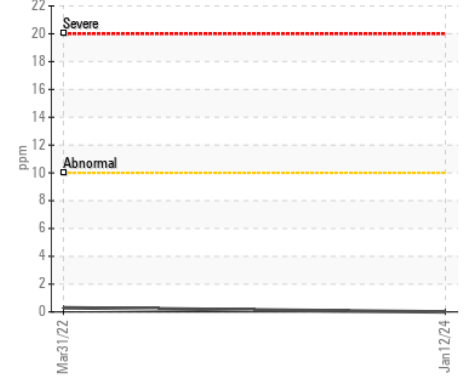
Base Number



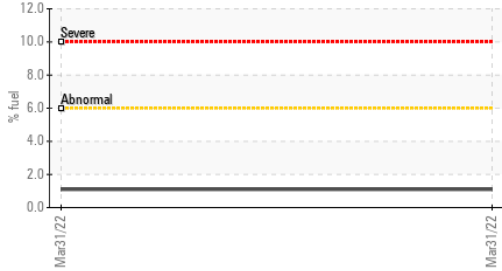
Aluminum (ppm)



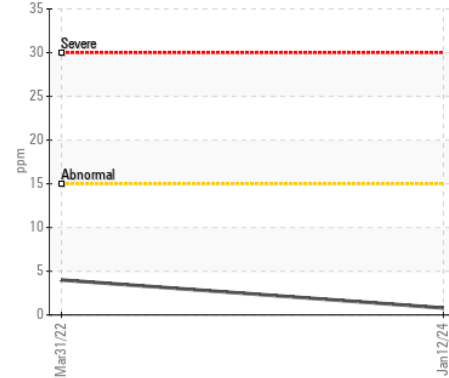
Chromium (ppm)



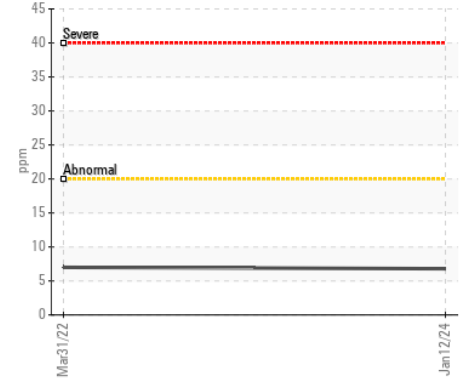
Fuel Dilution



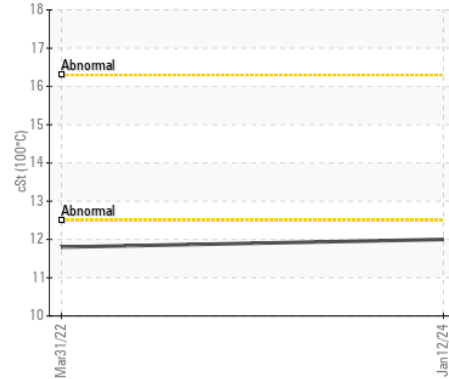
Copper (ppm)



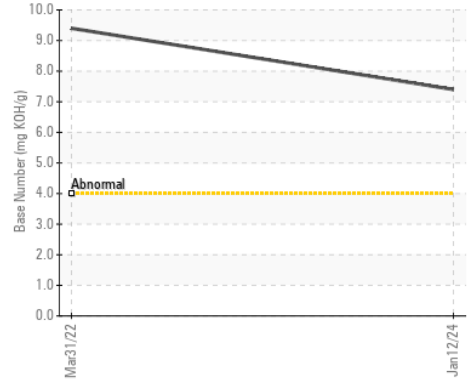
Silicon (ppm)



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0886266 **Received** : 17 Jan 2024  
**Lab Number** : 06062339 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833721 **Diagnostician** : Sean Felton  
**Test Package** : MOBCE ( Additional Tests: FuelDilution, 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)