



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO EC220E 314010
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ML0000263	VCP320360	---
Sample Date		Client Info		08 Apr 2024	09 Sep 2021	---
Machine Age	hrs	Client Info		3913	1950	---
Oil Age	hrs	Client Info		200	0	---
Filter Age	hrs	Client Info		200	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	29	20	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	5	2	---
Lead	ppm	ASTM D5185m	>20	<1	<1	---
Copper	ppm	ASTM D5185m	>15	2	1	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

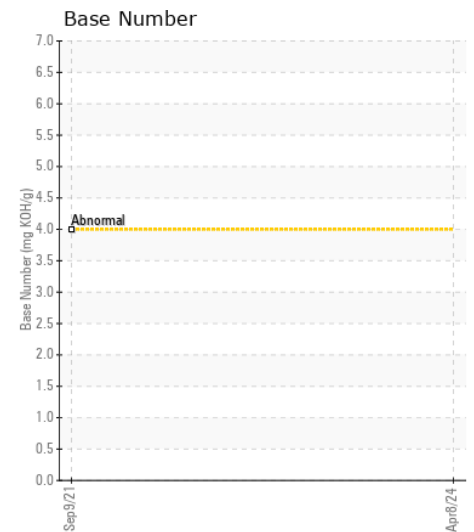
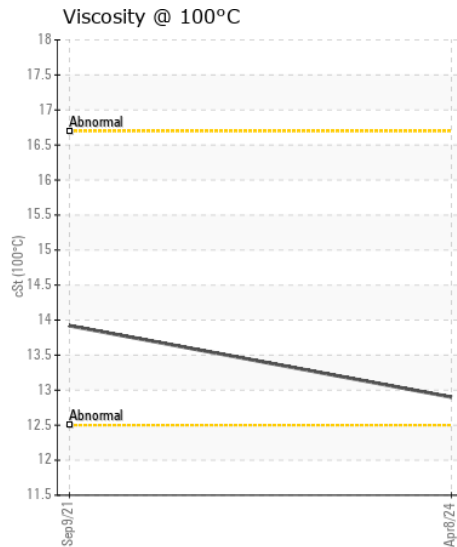
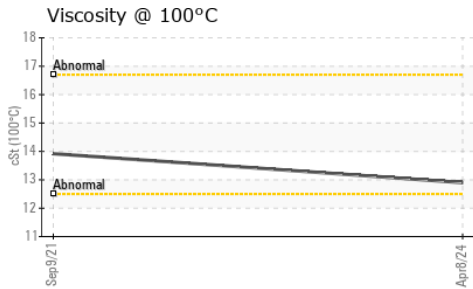
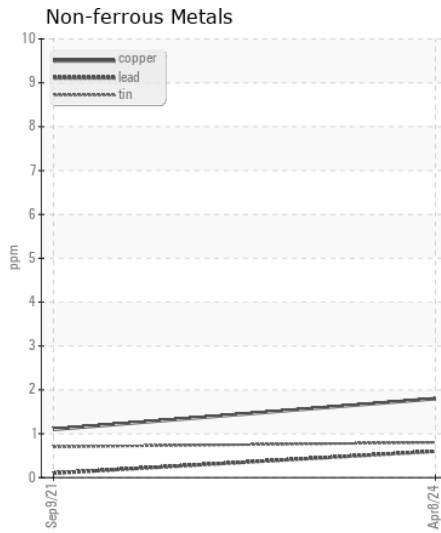
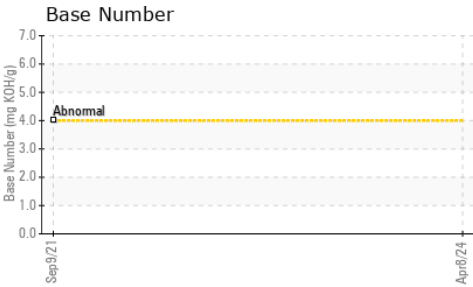
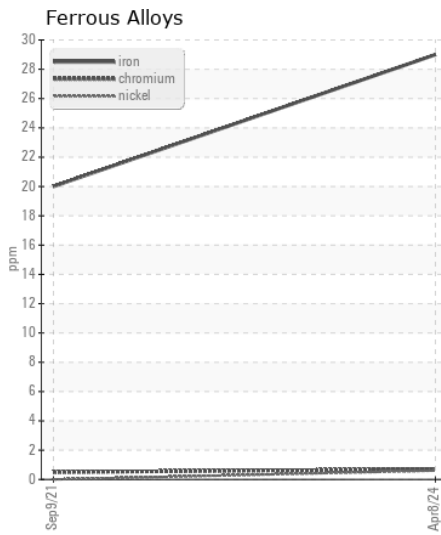
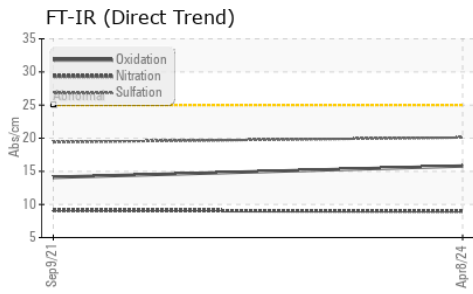
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	11	5	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel		WC Method	>6.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	9.0	9.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	19.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	1	---
Boron	ppm	ASTM D5185m		160	58	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		79	2	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		480	794	---
Calcium	ppm	ASTM D5185m		1845	1563	---
Phosphorus	ppm	ASTM D5185m		1068	832	---
Zinc	ppm	ASTM D5185m		1351	914	---
Sulfur	ppm	ASTM D5185m		4121	3117	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	14.1	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.5	---	---
Visc @ 100°C	cSt	ASTM D445		12.9	13.92	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0000263 **Received** : 11 Apr 2024
Lab Number : 06145721 **Tested** : 12 Apr 2024
Unique Number : 10970529 **Diagnosed** : 14 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: 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)