



ASCENDUM

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
VOLVO EC220EL 314109
Component
5 Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (62 GAL)

RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0004566	---	---
Sample Date		Client Info		19 Mar 2024	---	---
Machine Age	hrs	Client Info		3475	---	---
Oil Age	hrs	Client Info		3475	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

The iron level is severe.

Iron	ppm	ASTM D5185m	>25	▲ 93	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		2	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	16	---	---
Lead	ppm	ASTM D5185m	>20	3	---	---
Copper	ppm	ASTM D5185m	>150	65	---	---
Tin	ppm	ASTM D5185m	>10	3	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

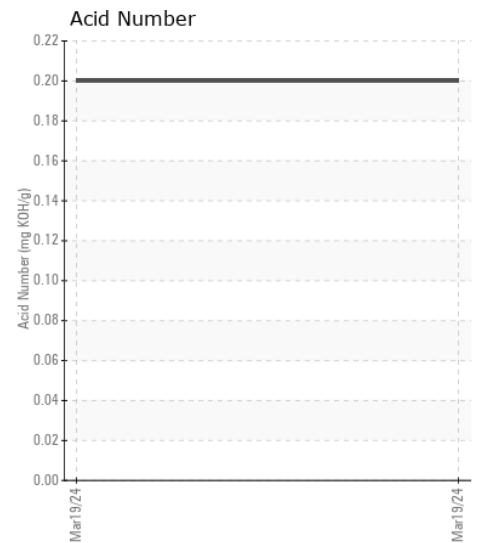
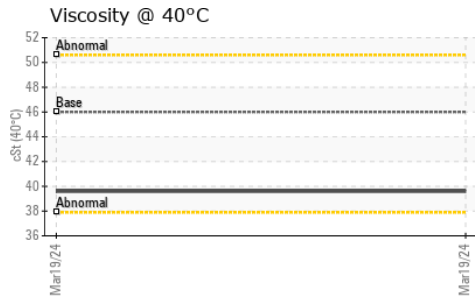
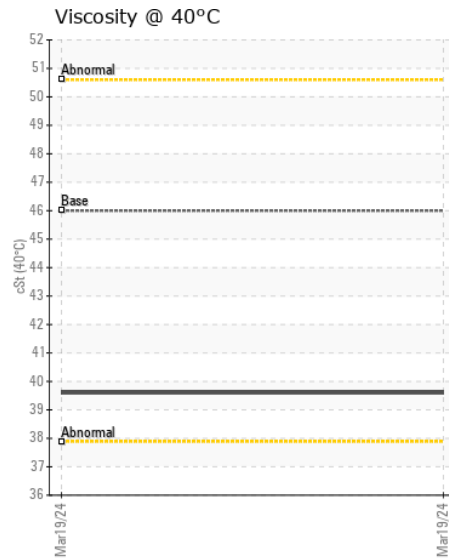
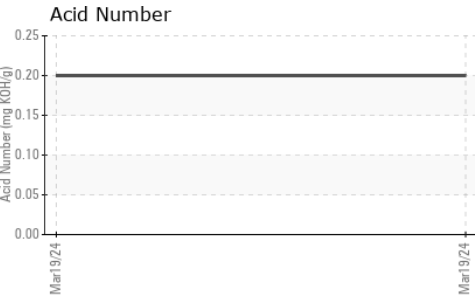
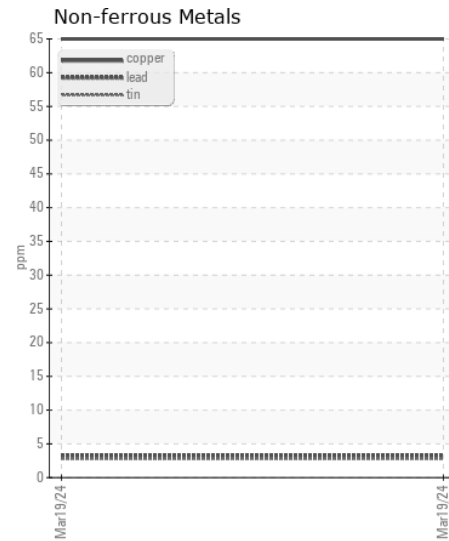
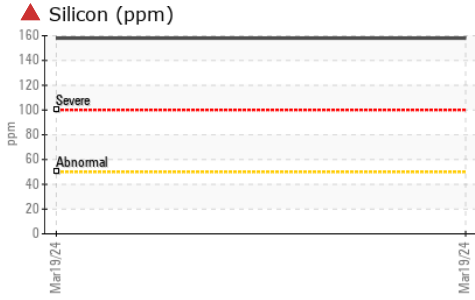
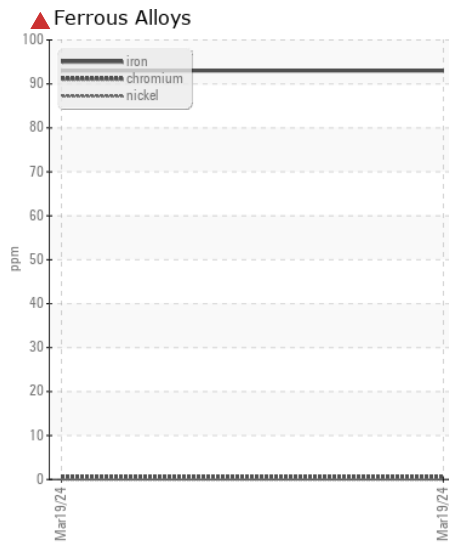
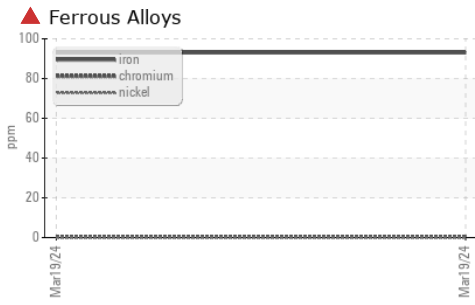
Elemental level of silicon (Si) above normal indicating ingress of seal material. High concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>50	▲ 158	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Water		WC Method	>0.1	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ HEAVY	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m	14	0	---	---
Barium	ppm	ASTM D5185m	0.0	0	---	---
Molybdenum	ppm	ASTM D5185m	0.0	0	---	---
Manganese	ppm	ASTM D5185m	0.0	2	---	---
Magnesium	ppm	ASTM D5185m	2.6	1	---	---
Calcium	ppm	ASTM D5185m	49	49	---	---
Phosphorus	ppm	ASTM D5185m	354	321	---	---
Zinc	ppm	ASTM D5185m	419	387	---	---
Sulfur	ppm	ASTM D5185m	3719	2264	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.20	---	---
Visc @ 40°C	cSt	ASTM D445	46	39.6	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0004566
Lab Number : 06123592
Unique Number : 10937743
Test Package : CONST

Received : 20 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Jonathan Hester

365 - ASCENDUM MACHINERY INC - SAVANNAH
 54 MEDLINE DR
 RICHMOND HILL, GA
 US 31324
 Contact: SADE AARONS
 sade.aarons@ascendummachinery.com

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)

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