



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
VOLVO EC160 314161

Component
Hydraulic System

Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP441425	VCP417522	---
Sample Date		Client Info		09 Jan 2024	12 Jun 2023	---
Machine Age	hrs	Client Info		994	716	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	<1	2	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>20	0	0	---
Lead	ppm	ASTM D5185m	>20	0	<1	---
Copper	ppm	ASTM D5185m	>150	43	40	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

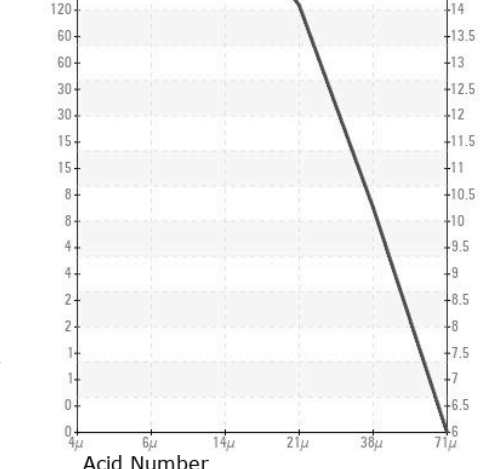
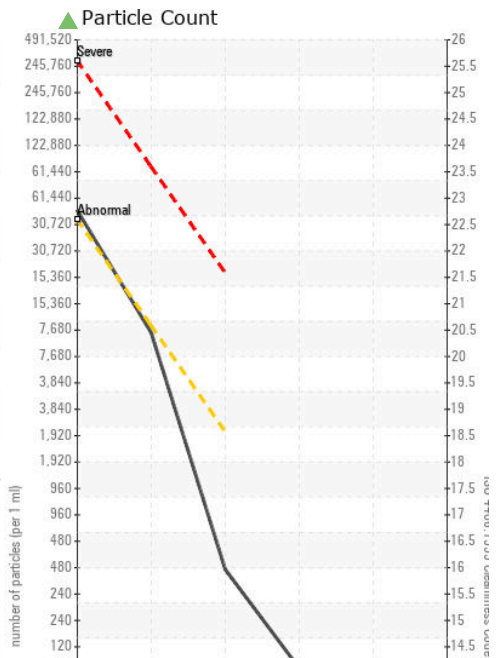
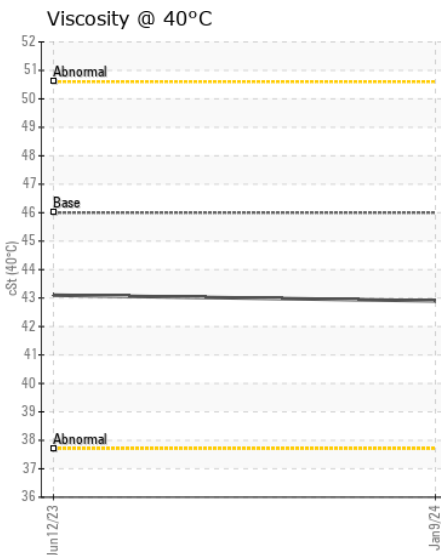
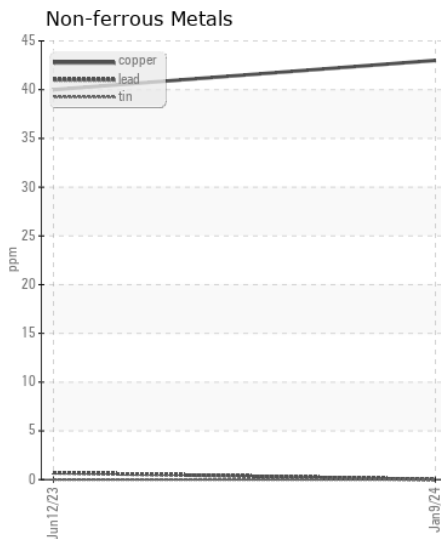
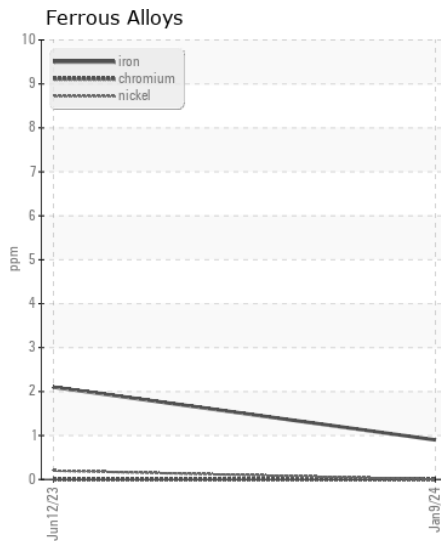
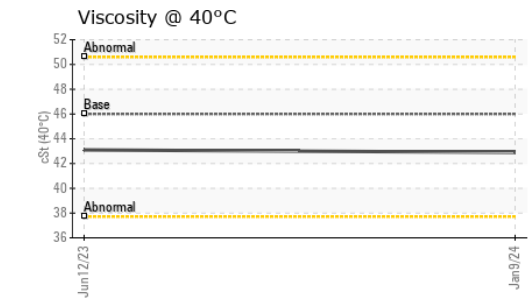
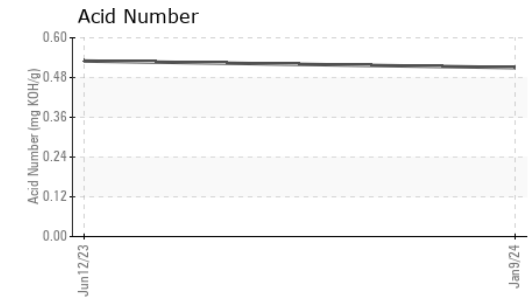
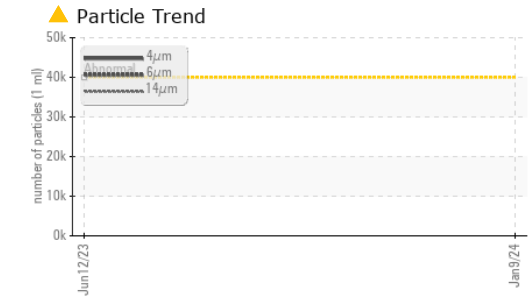
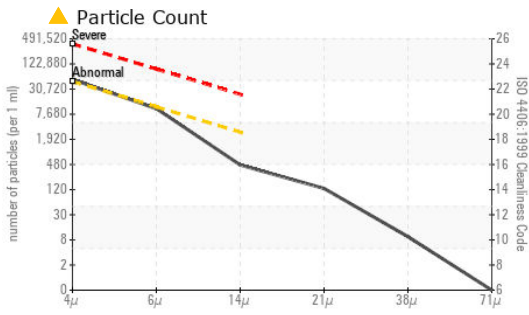
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>50	4	5	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>40000	▲ 45231	---	---
Particles >6µm		ASTM D7647	>10000	9106	---	---
Particles >14µm		ASTM D7647	>2500	412	---	---
Particles >21µm		ASTM D7647	>640	113	---	---
Particles >38µm		ASTM D7647	>160	8	---	---
Particles >71µm		ASTM D7647	>40	0	---	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	▲ 23/20/16	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	▲ MODER	---
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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	---
Boron	ppm	ASTM D5185m	14	0	0	---
Barium	ppm	ASTM D5185m	0.0	0	2	---
Molybdenum	ppm	ASTM D5185m	0.0	0	0	---
Manganese	ppm	ASTM D5185m	0.0	0	0	---
Magnesium	ppm	ASTM D5185m	2.6	0	<1	---
Calcium	ppm	ASTM D5185m	49	50	60	---
Phosphorus	ppm	ASTM D5185m	354	391	368	---
Zinc	ppm	ASTM D5185m	419	478	474	---
Sulfur	ppm	ASTM D5185m	3719	982	929	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.51	0.53	---
Visc @ 40°C	cSt	ASTM D445	46	42.9	43.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441425 **Received** : 12 Jan 2024
Lab Number : 06059249 **Diagnosed** : 15 Jan 2024
Unique Number : 10830631 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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