



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area  
**[716771 HILLSBOROUGH]**

Machine Id  
**VOLVO EW160E 323446**

Component  
**Hydraulic System**

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

### RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP451488	---	---
Sample Date		Client Info		23 May 2024	---	---
Machine Age	hrs	Client Info		8720	---	---
Oil Age	hrs	Client Info		4000	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	19	---	---
Chromium	ppm	ASTM D5185m	>10	1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	2	---	---
Lead	ppm	ASTM D5185m	>10	1	---	---
Copper	ppm	ASTM D5185m	>75	46	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

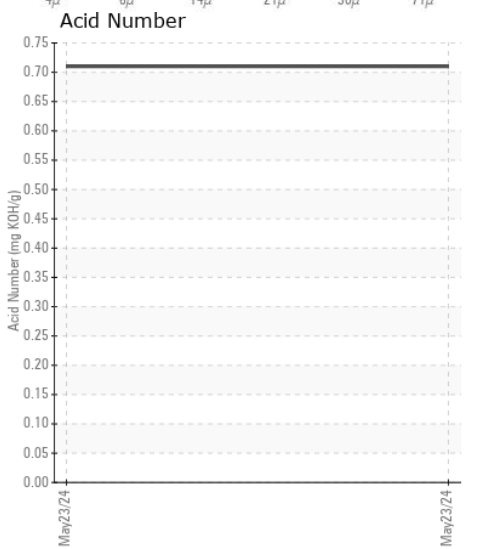
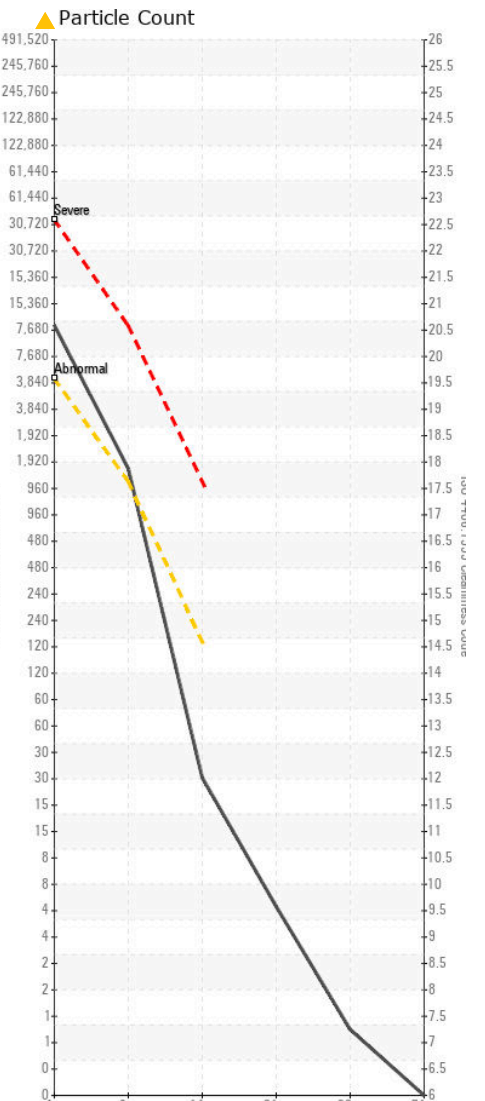
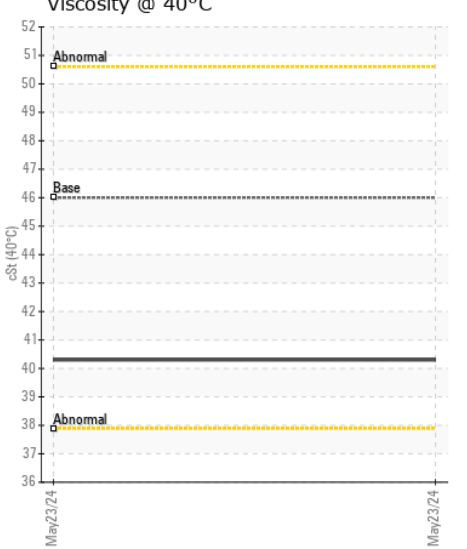
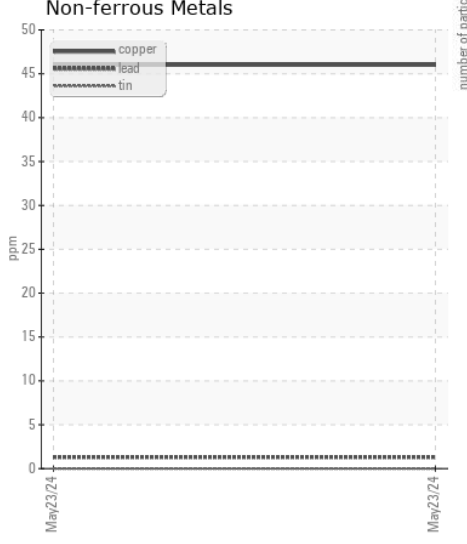
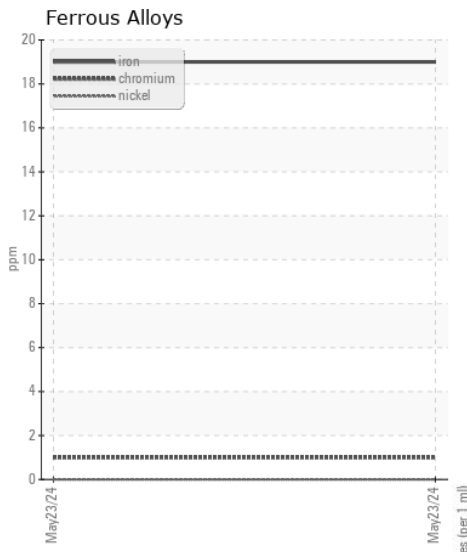
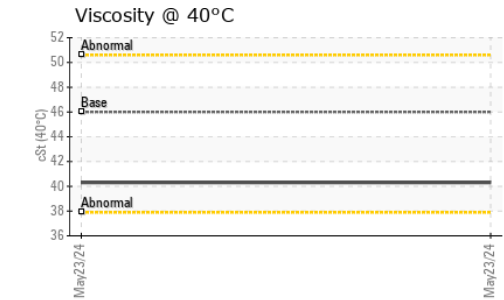
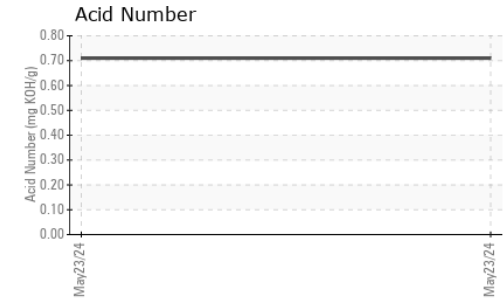
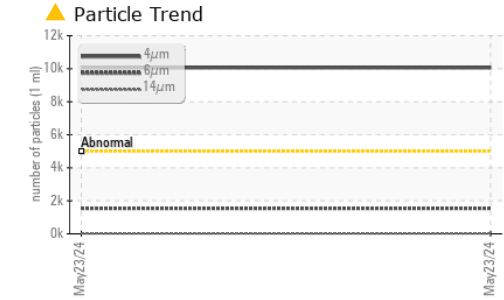
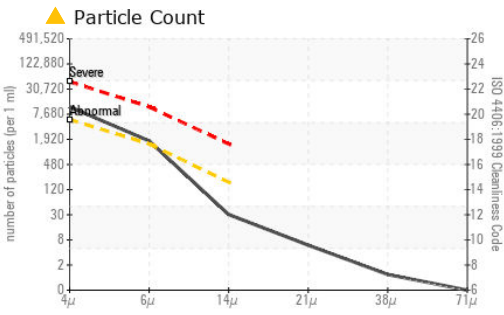
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	7	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	▲ 10061	---	---
Particles >6µm		ASTM D7647	>1300	● 1542	---	---
Particles >14µm		ASTM D7647	>160	27	---	---
Particles >21µm		ASTM D7647	>40	5	---	---
Particles >38µm		ASTM D7647	>10	1	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/18/12	---	---
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	---	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	---	---
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	0	---	---
Magnesium	ppm	ASTM D5185m	2.6	2	---	---
Calcium	ppm	ASTM D5185m	49	153	---	---
Phosphorus	ppm	ASTM D5185m	354	446	---	---
Zinc	ppm	ASTM D5185m	419	590	---	---
Sulfur	ppm	ASTM D5185m	3719	1352	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.71	---	---
Visc @ 40°C	cSt	ASTM D445	46	40.3	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP451488  
**Lab Number** : 06214590  
**Unique Number** : 11087454  
**Test Package** : MOB 2

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Wes Davis

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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)