



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Area
[S50900687 PERRAULT]

Machine Id
VOLVO L110G 8392

Component
Diesel Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

We advise that you check for possible coolant leak. Check for low coolant level. The oil 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		VCP436788	VCP337858	---
Sample Date		Client Info		02 Feb 2024	25 Jan 2023	---
Machine Age	hrs	Client Info		0	15970	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		N/A	Not Changed	---
Sample Status				ABNORMAL	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>62	29	37	---
Chromium	ppm	ASTM D5185m	>5	2	1	---
Nickel	ppm	ASTM D5185m	>3	1	<1	---
Titanium	ppm	ASTM D5185m		1	<1	---
Silver	ppm	ASTM D5185m	>2	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	11	11	---
Lead	ppm	ASTM D5185m	>6	<1	6	---
Copper	ppm	ASTM D5185m	>20	3	6	---
Tin	ppm	ASTM D5185m	>4	1	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

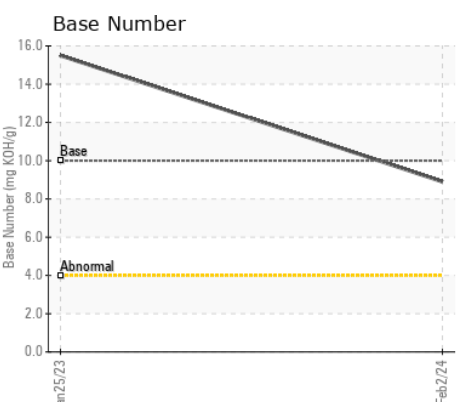
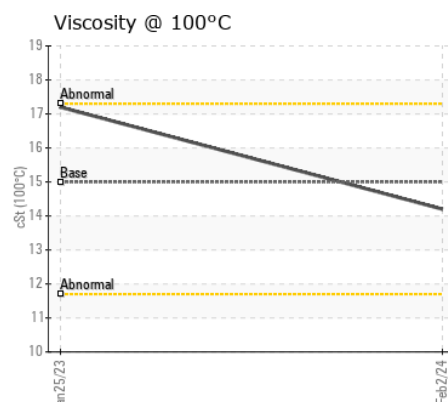
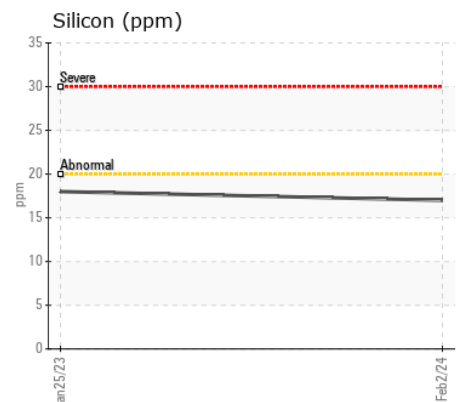
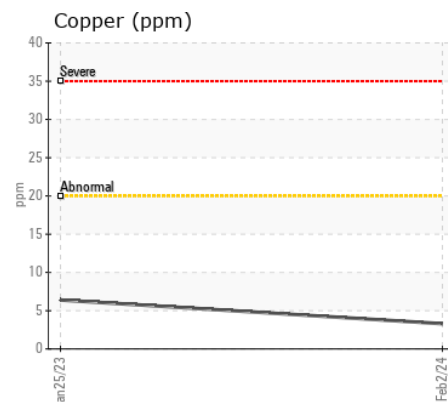
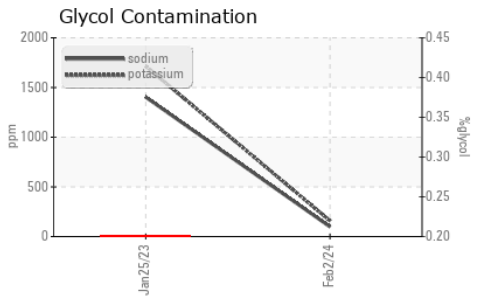
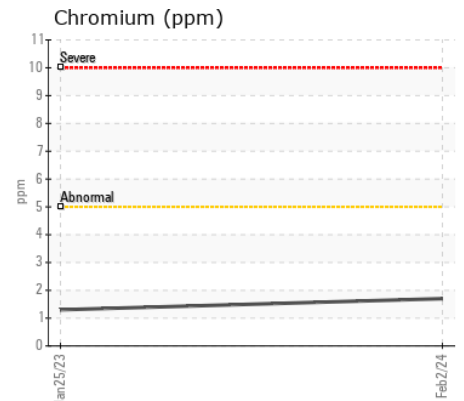
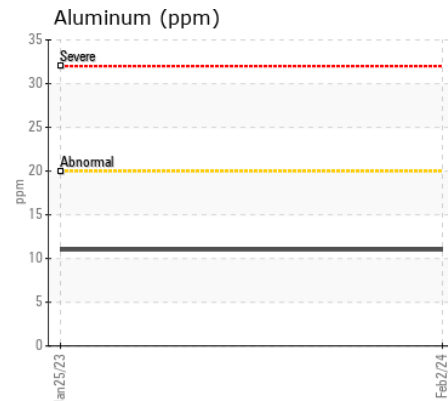
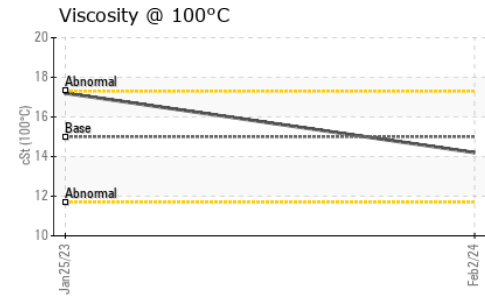
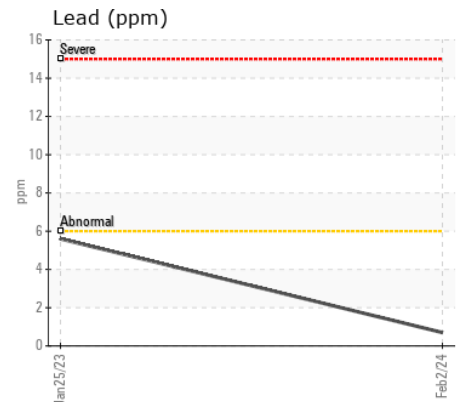
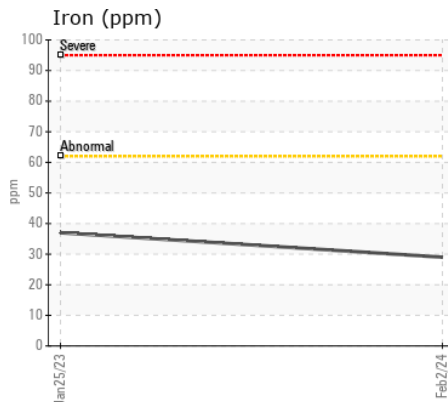
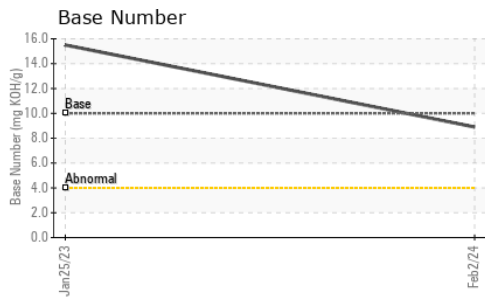
Sodium and/or potassium levels remain high.

Silicon	ppm	ASTM D5185m	>20	17	18	---
Potassium	ppm	ASTM D5185m	>20	▲ 159	▲ 1714	---
Fuel		WC Method	>6.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	▲ 0.20	---
Soot %	%	*ASTM D7844	>3	1	▲ 3.1	---
Nitration	Abs/cm	*ASTM D7624	>20	9.3	17.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	30.0	---
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.

Sodium	ppm	ASTM D5185m		▲ 98	▲ 1403	---
Boron	ppm	ASTM D5185m	2.5	74	57	---
Barium	ppm	ASTM D5185m	0.0	1	0	---
Molybdenum	ppm	ASTM D5185m	0.7	35	214	---
Manganese	ppm	ASTM D5185m	0.0	1	<1	---
Magnesium	ppm	ASTM D5185m	256	650	513	---
Calcium	ppm	ASTM D5185m	2057	1217	1325	---
Phosphorus	ppm	ASTM D5185m	935	676	735	---
Zinc	ppm	ASTM D5185m	1223	821	844	---
Sulfur	ppm	ASTM D5185m	4079	2971	3277	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	18.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.9	15.5	---
Visc @ 100°C	cSt	ASTM D445	15.0	14.2	▲ 17.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP436788
Lab Number : 06102242
Unique Number : 10900472
Test Package : MOB 1 (Additional Tests: TBN)

Received : 27 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 01 Mar 2024 - Jonathan Hester

VCES- VOLVO CONSTRUCTION EQUIPMENT
 12345 MAPLEVIEW STREET
 LAKESIDE, CA
 US 92040
 Contact: Mark Stewart
 mark.stewart@vcesvolvo.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)

T: X:
 F: X: