



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SUSAN EIDE [DILLON]

Machine Id
KOHLER 2113573

Component
Genset

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA060503	VPA047474	---
Sample Date		Client Info		23 Feb 2024	14 Mar 2022	---
Machine Age	hrs	Client Info		819	797	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	23	---
Chromium	ppm	ASTM D5185m	>4	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>5	<1	0	---
Aluminum	ppm	ASTM D5185m	>12	3	6	---
Lead	ppm	ASTM D5185m	>17	<1	<1	---
Copper	ppm	ASTM D5185m	>70	<1	1	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

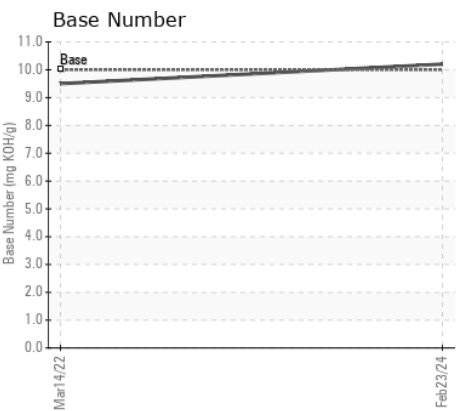
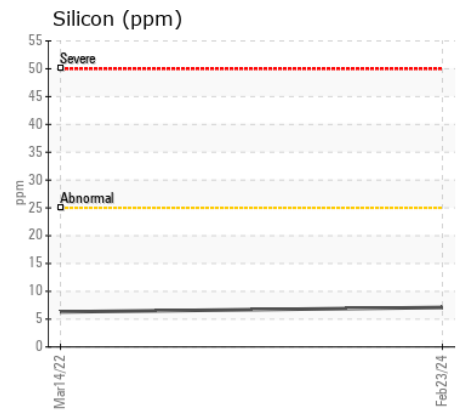
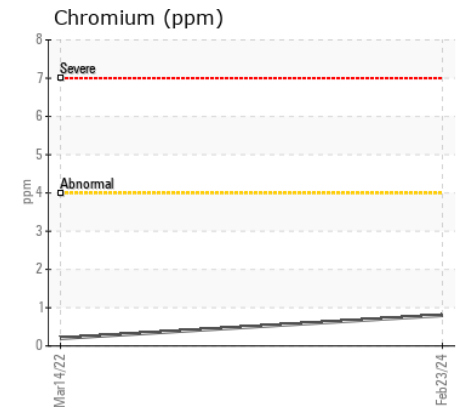
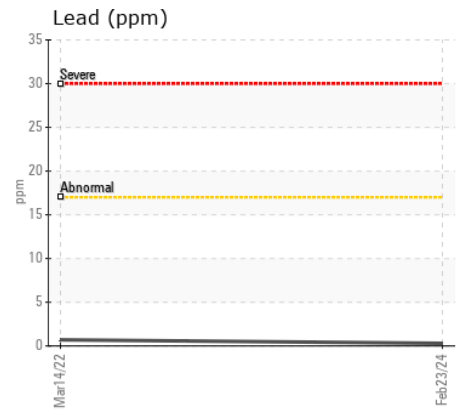
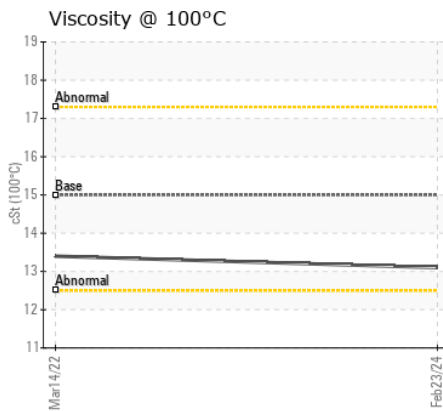
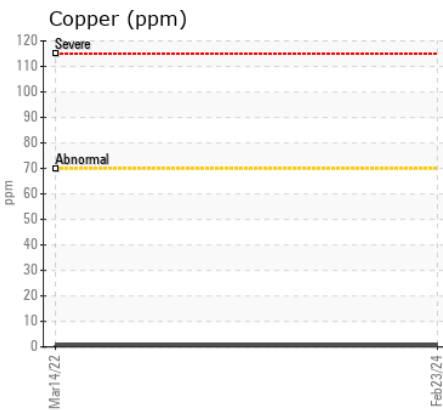
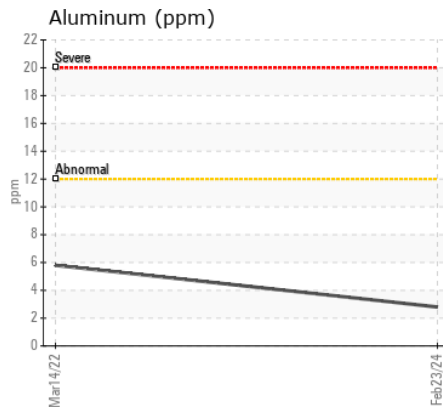
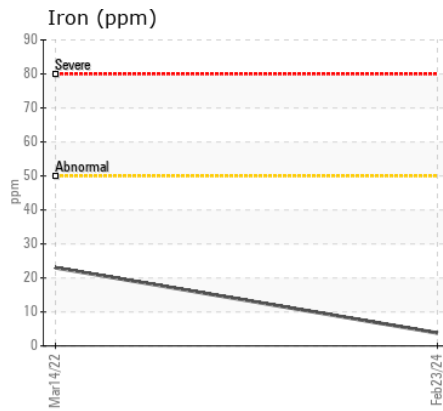
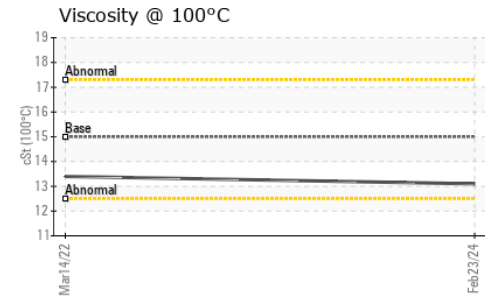
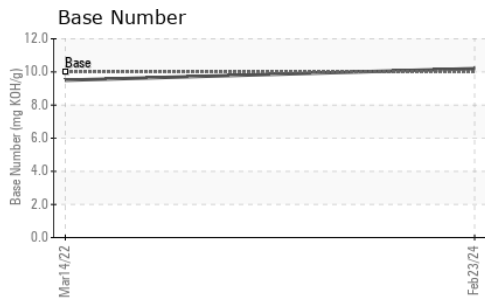
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	6	---
Potassium	ppm	ASTM D5185m	>20	2	3	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	4.6	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	19.7	---
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		2	3	---
Boron	ppm	ASTM D5185m	2.5	10	228	---
Barium	ppm	ASTM D5185m	0.0	1	0	---
Molybdenum	ppm	ASTM D5185m	0.7	59	23	---
Manganese	ppm	ASTM D5185m	0.0	<1	<1	---
Magnesium	ppm	ASTM D5185m	256	933	560	---
Calcium	ppm	ASTM D5185m	2057	1014	1745	---
Phosphorus	ppm	ASTM D5185m	935	971	828	---
Zinc	ppm	ASTM D5185m	1223	1185	1000	---
Sulfur	ppm	ASTM D5185m	4079	3515	3119	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.6	14.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.2	9.5	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	13.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA060503 **Received** : 28 Feb 2024
Lab Number : 06102666 **Tested** : 29 Feb 2024
Unique Number : 10900896 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

Endor Marine LLC - Coastal Marine - 152124
 4300 11th Ave. NW
 SEATTLE, WA
 US 98107
 Contact: WILLOW YANARELLA
 service@coastalmarineengine.com
 T: (206)784-3703
 F: (206)784-8823

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)