



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
VIRGINIA HARRIS [DANIEL/503117]
Machine Id
VOLVO PENTA S4220312561 - INBOARD
Component
Starboard Gearbox
Fluid
HAVOLINE MD-3 (5 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA062544	---	---
Sample Date		Client Info		21 May 2024	---	---
Machine Age	hrs	Client Info		365	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184		18	---	---
Iron	ppm	ASTM D5185m	>150	11	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>5	<1	---	---
Lead	ppm	ASTM D5185m	>65	<1	---	---
Copper	ppm	ASTM D5185m	>80	10	---	---
Tin	ppm	ASTM D5185m	>8	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

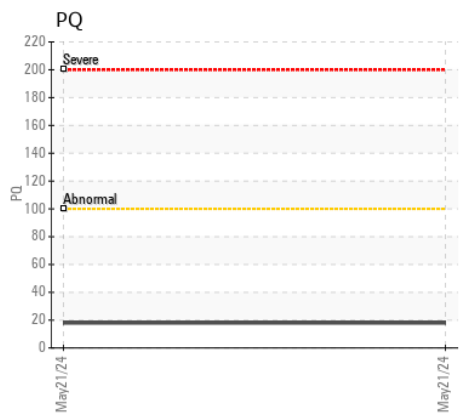
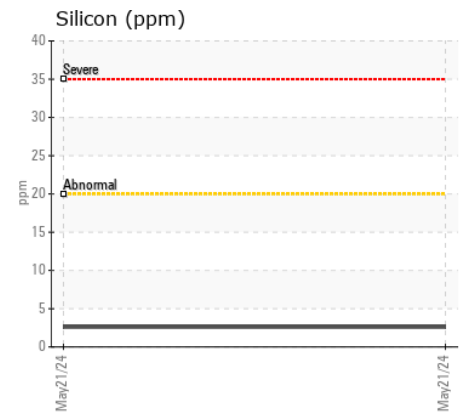
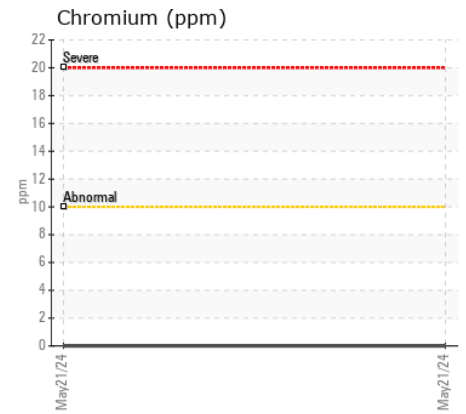
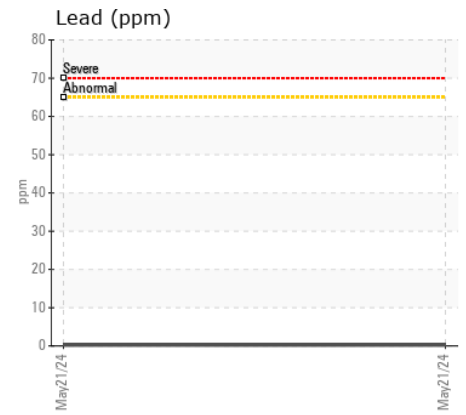
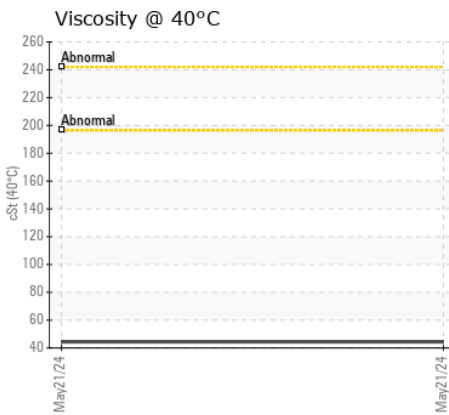
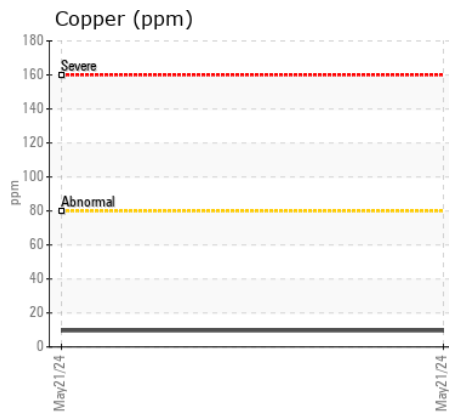
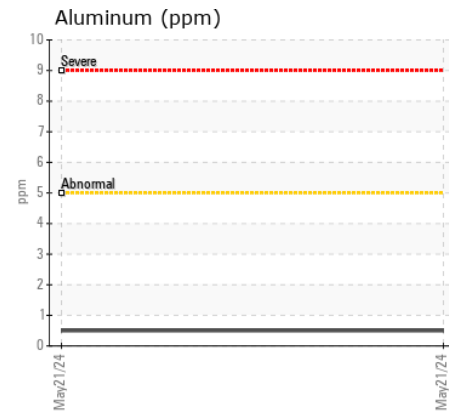
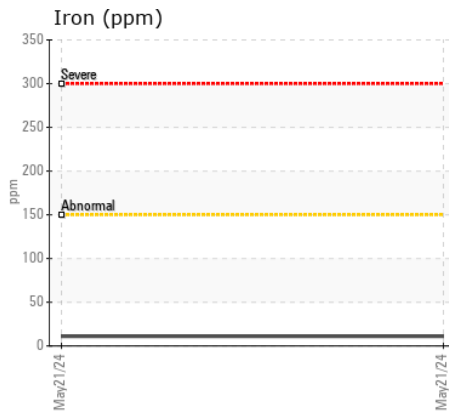
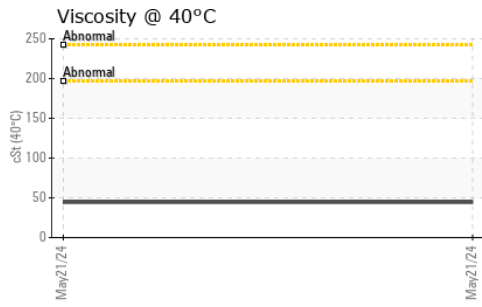
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	3	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Water		WC Method	>0.2	NEG	---	---
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	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		65	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		4	---	---
Calcium	ppm	ASTM D5185m		12	---	---
Phosphorus	ppm	ASTM D5185m		154	---	---
Zinc	ppm	ASTM D5185m		4	---	---
Sulfur	ppm	ASTM D5185m		1291	---	---
Visc @ 40°C	cSt	ASTM D445		44.4	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA062544 **Received** : 28 May 2024
Lab Number : 06192540 **Tested** : 05 Jun 2024
Unique Number : 11049292 **Diagnosed** : 05 Jun 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: PQ)

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)