



Area
PATRICK WELCH [DILLON]
Machine Id
VOLVO PENTA A530499 - STERNDRIVE
Component
Starboard Gearbox
Fluid
VOLVO PENTA GL-5 SAE 75W90 (3 QTS)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron level is severe.

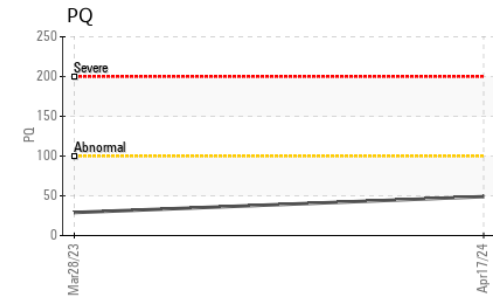
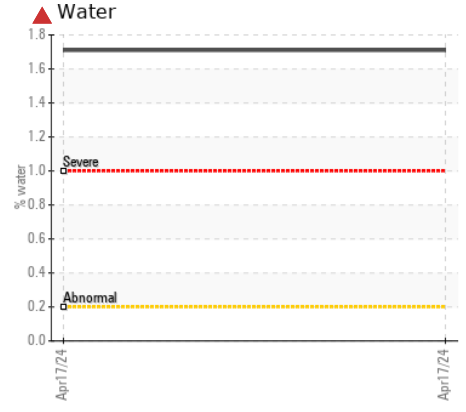
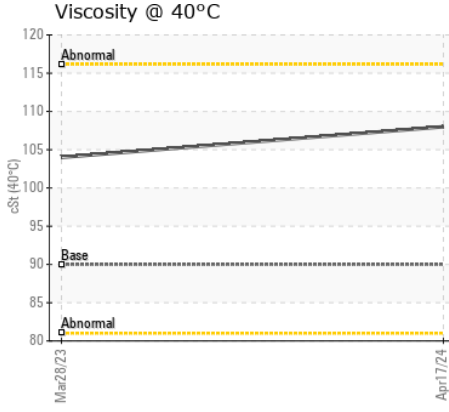
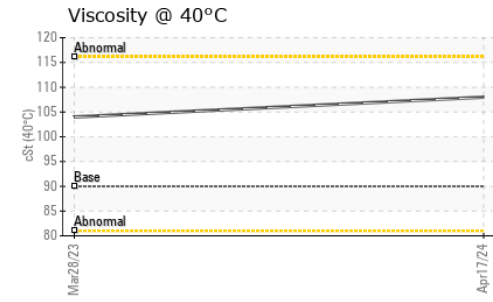
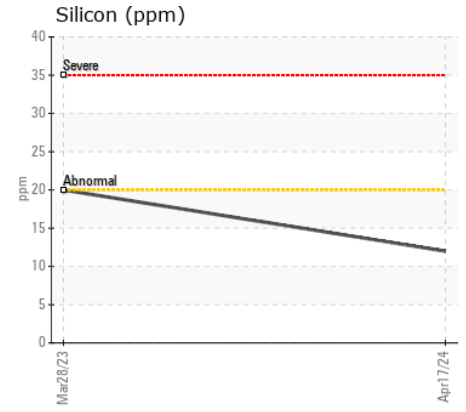
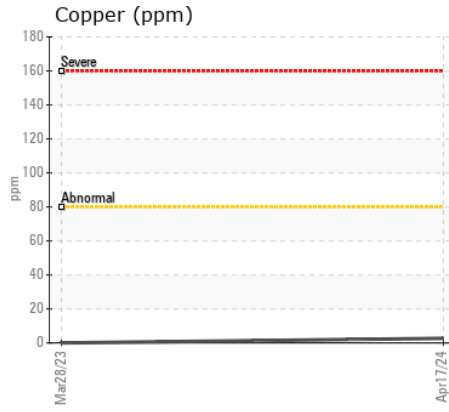
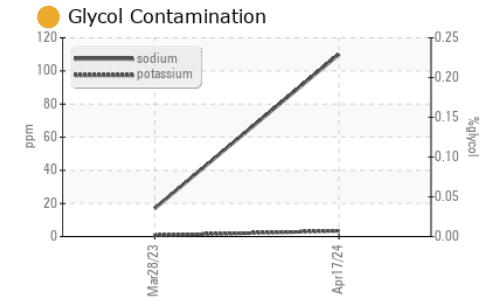
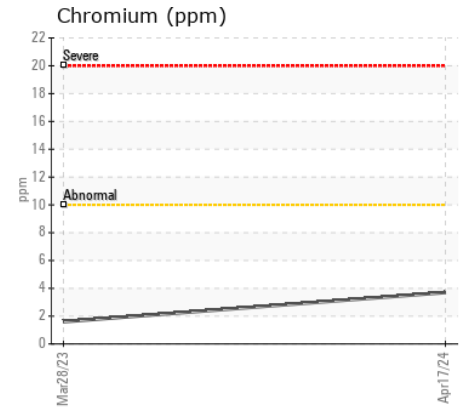
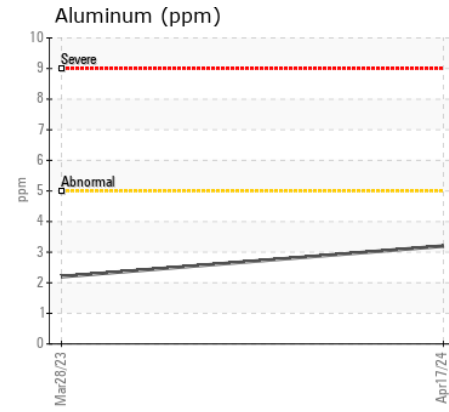
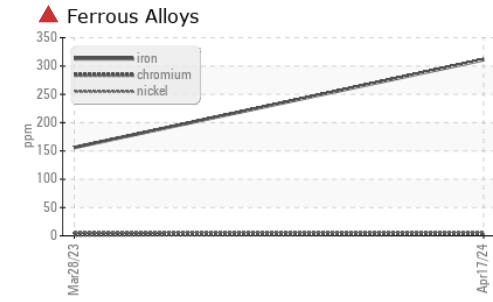
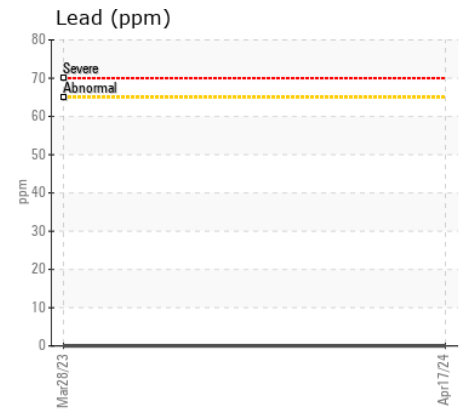
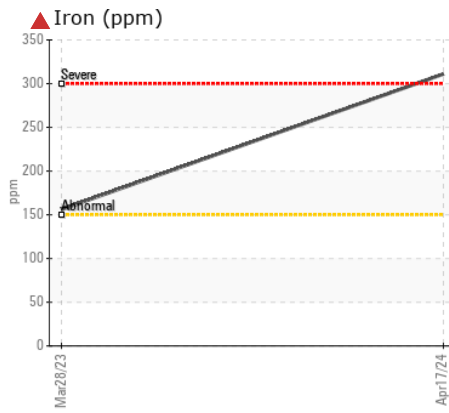
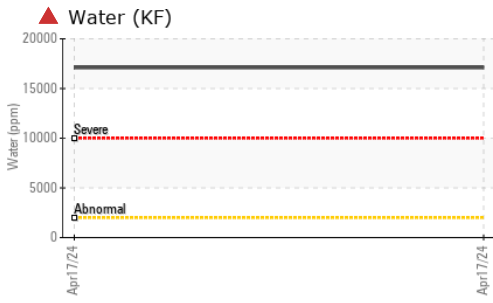
CONTAMINATION

Appearance is milky. There is a high concentration of water present in the oil. The high sodium (Na) level indicates the possible presence of salt water.

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA053010	VPA055426	---
Sample Date		Client Info		17 Apr 2024	28 Mar 2023	---
Machine Age	hrs	Client Info		370	329	---
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		Not Chngd	N/A	---
Sample Status				SEVERE	ABNORMAL	---
PQ		ASTM D8184		49	29	---
Iron	ppm	ASTM D5185m	>150	▲ 311	● 156	---
Chromium	ppm	ASTM D5185m	>10	4	2	---
Nickel	ppm	ASTM D5185m	>10	7	7	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>5	3	2	---
Lead	ppm	ASTM D5185m	>65	0	0	---
Copper	ppm	ASTM D5185m	>80	3	0	---
Tin	ppm	ASTM D5185m	>8	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	MODER	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	12	▲ 20	---
Potassium	ppm	ASTM D5185m	>20	3	<1	---
Water	%	ASTM D6304	>0.2	▲ 1.71	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 17100	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	● MILKY	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	NEG	---
Sodium	ppm	ASTM D5185m		● 110	17	---
Boron	ppm	ASTM D5185m		314	334	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		5	3	---
Magnesium	ppm	ASTM D5185m		27	4	---
Calcium	ppm	ASTM D5185m		40	8	---
Phosphorus	ppm	ASTM D5185m		1407	1479	---
Zinc	ppm	ASTM D5185m		49	16	---
Sulfur	ppm	ASTM D5185m		26561	25056	---
Visc @ 40°C	cSt	ASTM D445	90.0	108	104	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA053010 **Received** : 22 Apr 2024
Lab Number : 06156302 **Tested** : 24 Apr 2024
Unique Number : 10991725 **Diagnosed** : 24 Apr 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: KF, PQ)

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 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)