



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
EVAN LIN [DANIEL/502923]
 Machine Id
VOLVO PENTA 3200000151
 Component
Starboard IPS
 Fluid
GEAR OIL SAE 75W90 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA053014	VPA045706	VPA035143
Sample Date		Client Info		17 Apr 2024	24 May 2023	13 Jan 2022
Machine Age	hrs	Client Info		287	249	185
Oil Age	hrs	Client Info		0	0	185
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		15	14	26
Iron	ppm	ASTM D5185m	>200	11	23	48
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		0	<1	3
Lead	ppm	ASTM D5185m		0	0	0
Copper	ppm	ASTM D5185m		3	8	21
Tin	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

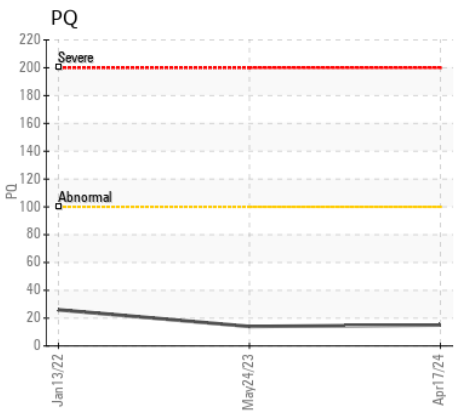
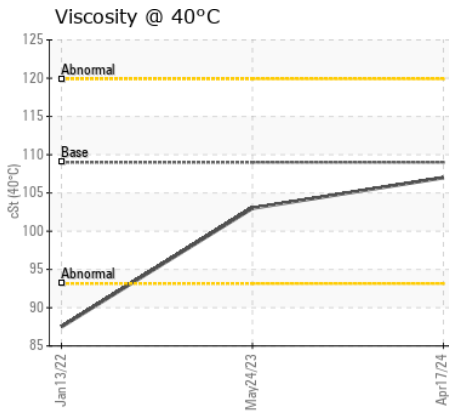
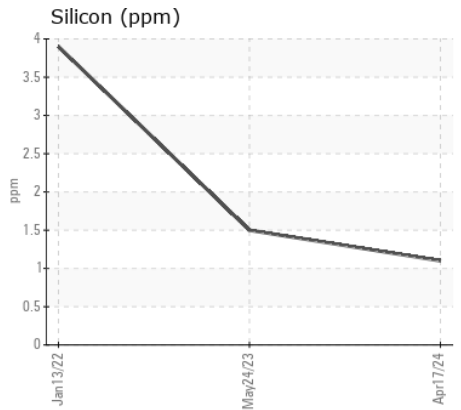
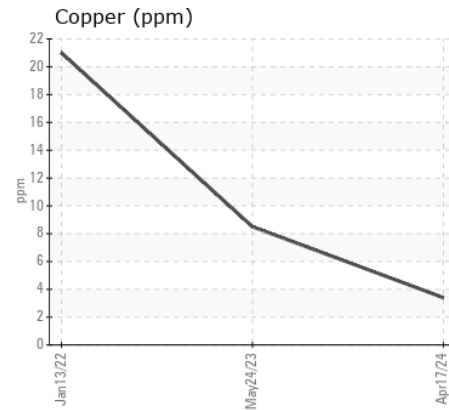
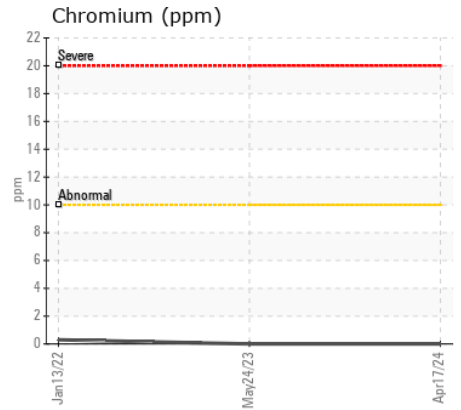
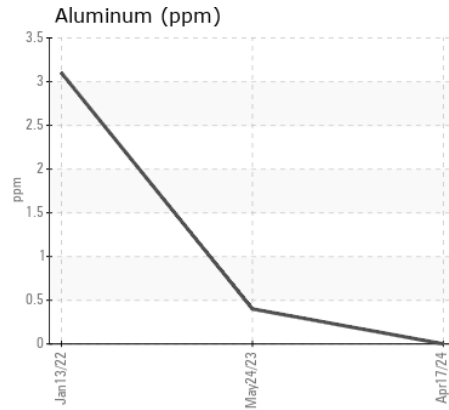
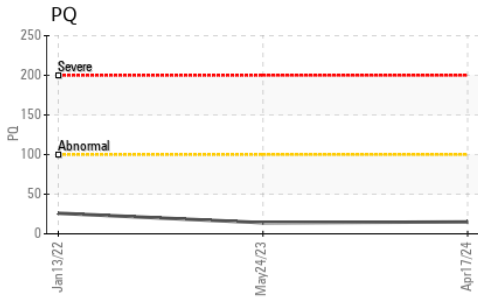
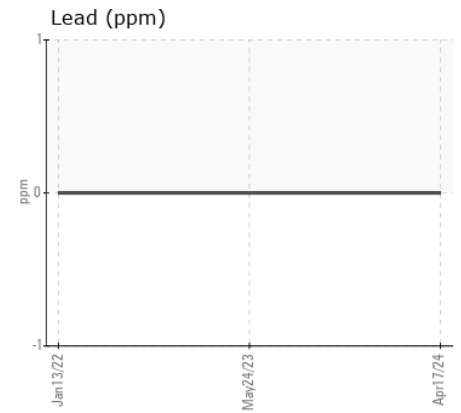
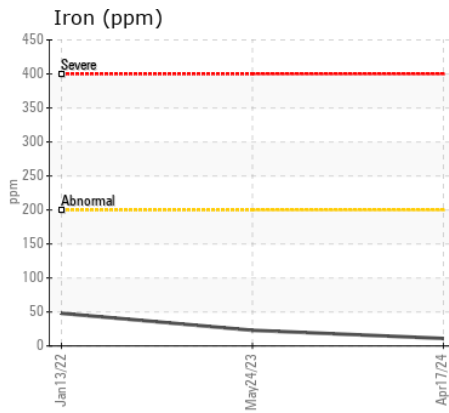
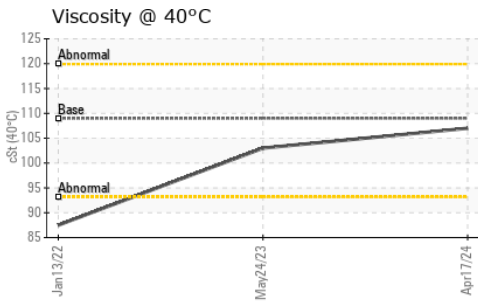
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m		1	2	4
Potassium	ppm	ASTM D5185m	>20	1	2	3
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		4	0	3
Boron	ppm	ASTM D5185m	400	352	366	500
Barium	ppm	ASTM D5185m	200	0	2	0
Molybdenum	ppm	ASTM D5185m	12	0	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	3
Magnesium	ppm	ASTM D5185m	12	0	177	910
Calcium	ppm	ASTM D5185m	150	0	5	21
Phosphorus	ppm	ASTM D5185m	1650	1377	1384	1541
Zinc	ppm	ASTM D5185m	125	0	6	8
Sulfur	ppm	ASTM D5185m	22500	28183	27757	21600
Visc @ 40°C	cSt	ASTM D445	109	107	103	87.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA053014 **Received** : 10 May 2024
Lab Number : 06176292 **Tested** : 13 May 2024
Unique Number : 11022345 **Diagnosed** : 14 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: PQ)

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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)