



VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
HAL KAUFMAN [MATTHEW DOW]

Machine Id
VOLVO PENTA 3194003546

Component
Starboard IPS

Fluid
GEAR OIL SAE 75W90 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA054838	VPA055915	VPA035405
Sample Date		Client Info		26 Jun 2024	05 May 2023	04 Jan 2022
Machine Age	hrs	Client Info		421	391	374
Oil Age	hrs	Client Info		30	17	17
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		15	15	15
Iron	ppm	ASTM D5185m	>275	<1	3	3
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	<1
Silver	ppm	ASTM D5185m		0	0	1
Aluminum	ppm	ASTM D5185m	>10	0	<1	2
Lead	ppm	ASTM D5185m	>4	0	0	0
Copper	ppm	ASTM D5185m	>30	0	1	2
Tin	ppm	ASTM D5185m	>3	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

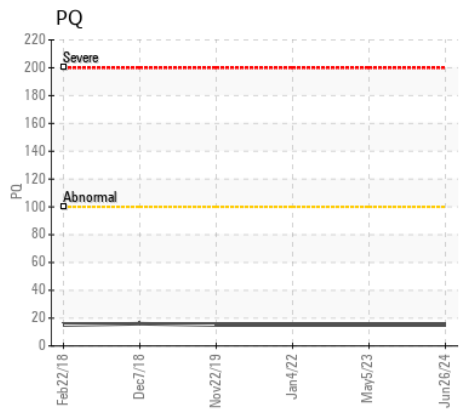
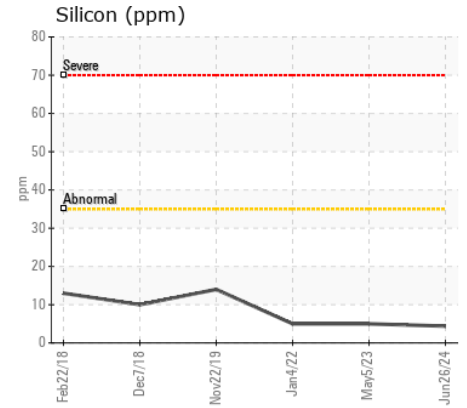
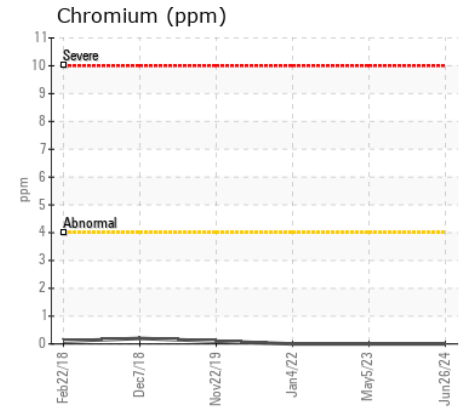
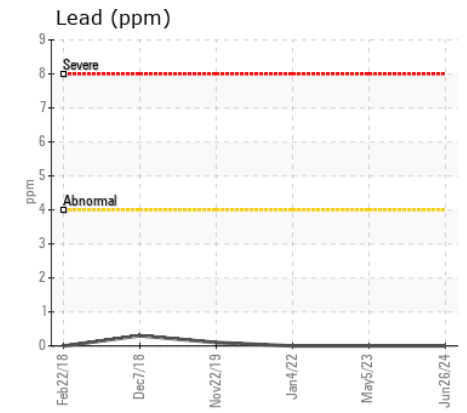
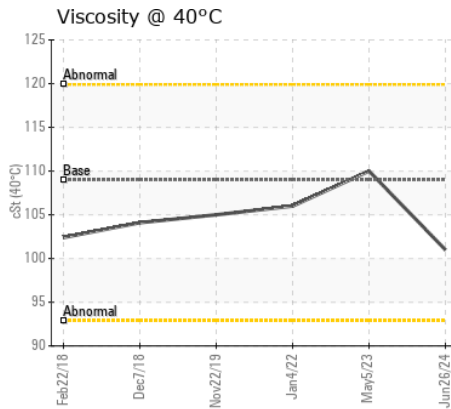
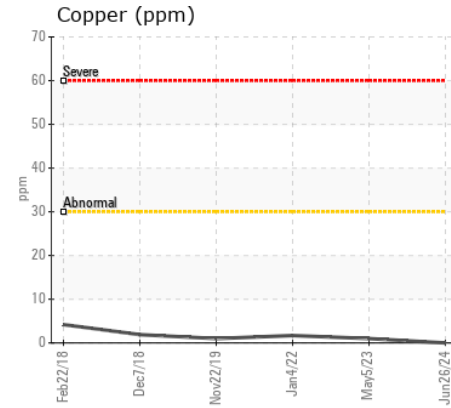
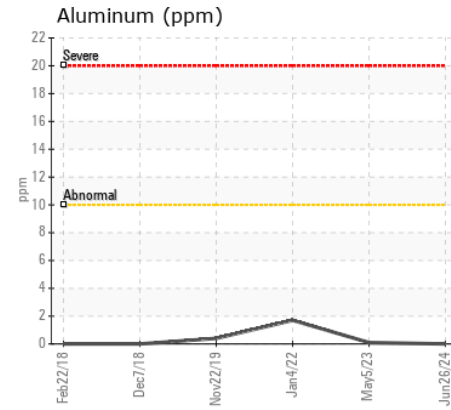
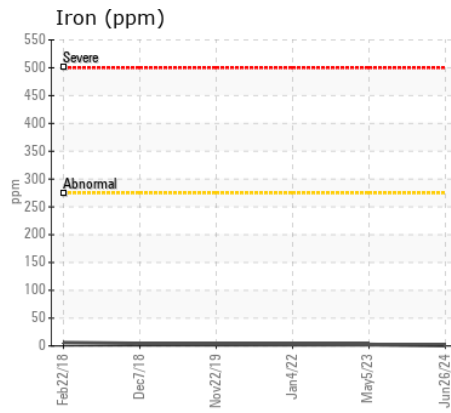
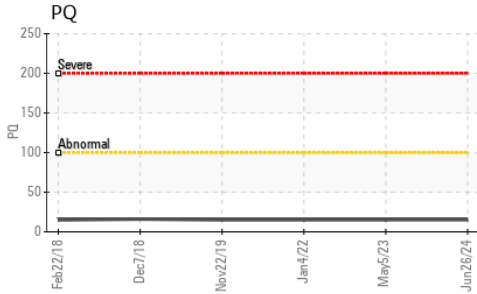
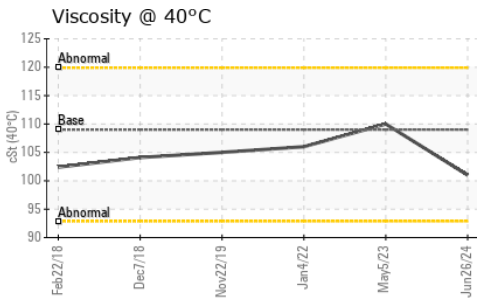
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	4	5	5
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
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		<1	<1	0
Boron	ppm	ASTM D5185m	400	327	302	308
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	0	0	4
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	12	5	0	<1
Calcium	ppm	ASTM D5185m	150	4	3	54
Phosphorus	ppm	ASTM D5185m	1650	1477	1320	1327
Zinc	ppm	ASTM D5185m	125	9	0	13
Sulfur	ppm	ASTM D5185m	22500	29363	25056	19602
Visc @ 40°C	cSt	ASTM D445	109	101	110	106



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VPA054838

Lab Number : 06227867

Unique Number : 11111360

Test Package : MOB 1 (Additional Tests: PQ)

Received : 03 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 07 Jul 2024 - Don Baldrige

Mobile Marine Services Inc

01032 Advance Rd South

EAST JORDAN, MI

US 49727

Contact: Duane Kujat

mobilemarine@twin-valley.net

T: Phone

F:

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)