



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
NORMAL
NORMAL

Area

HILARY BURT [ALAN]

Machine Id

VOLVO PENTA 200301577

Component

Starboard Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (3 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA06148342	---	---
Sample Date		Client Info		12 Apr 2024	---	---
Machine Age	hrs	Client Info		1036	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ATTENTION	---	---

WEAR

Ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>80	96	---	---
Chromium	ppm	ASTM D5185m	>6	7	---	---
Nickel	ppm	ASTM D5185m	>2	2	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	11	---	---
Lead	ppm	ASTM D5185m	>95	<1	---	---
Copper	ppm	ASTM D5185m	>85	21	---	---
Tin	ppm	ASTM D5185m	>9	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

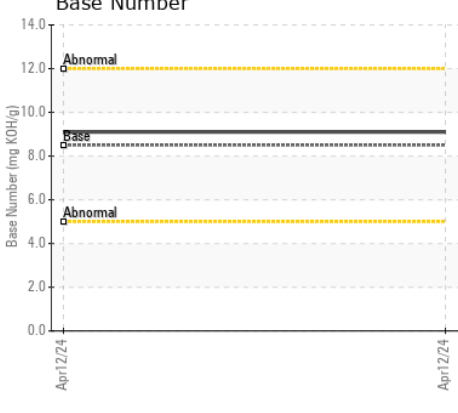
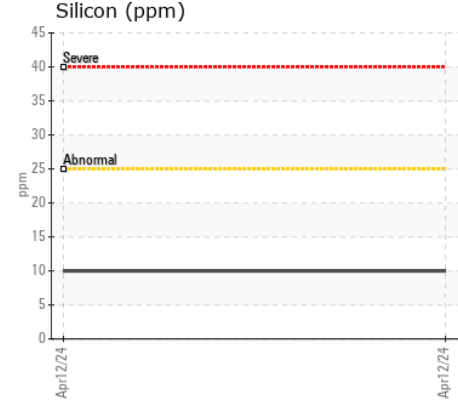
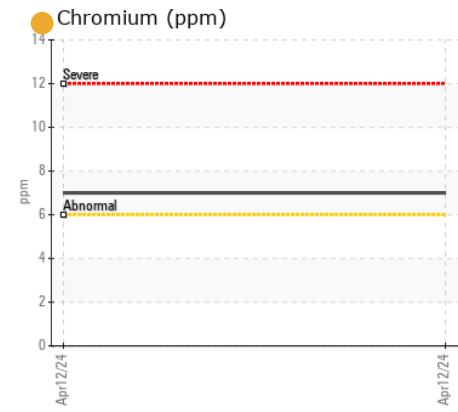
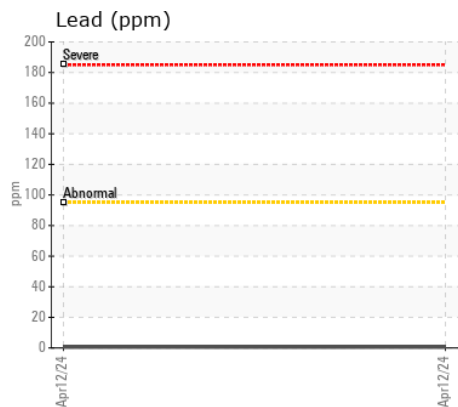
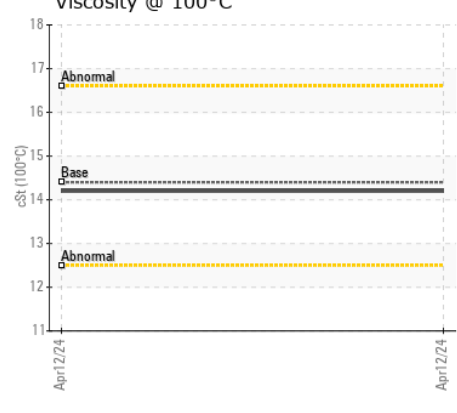
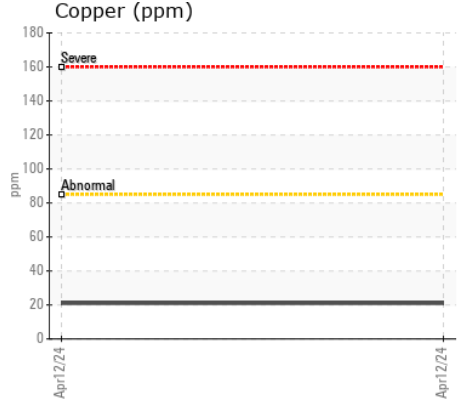
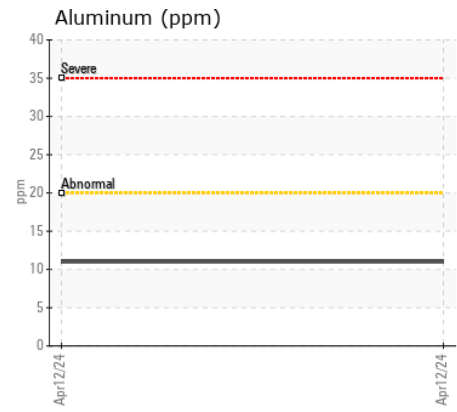
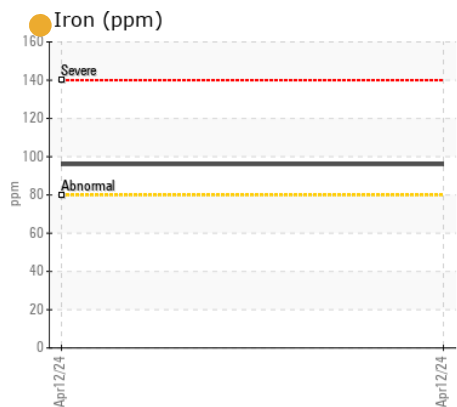
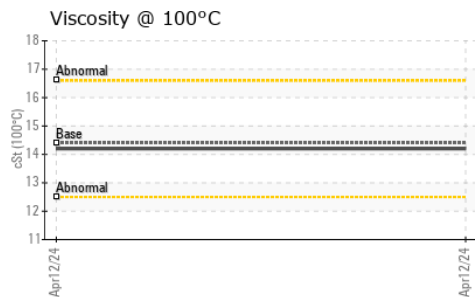
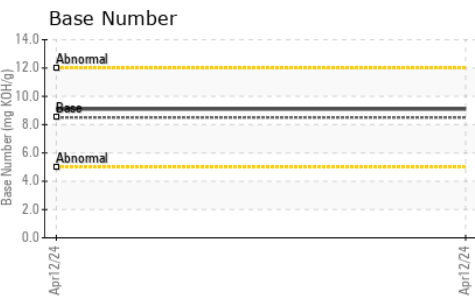
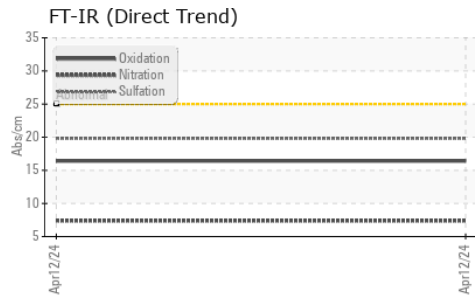
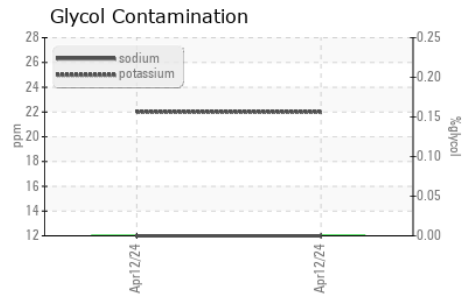
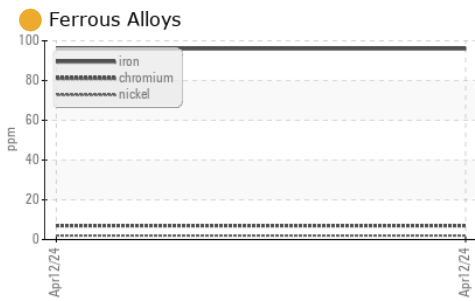
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	---	---
Potassium	ppm	ASTM D5185m	>20	22	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol	%	*ASTM D2982		0.0	---	---
Soot %	%	*ASTM D7844		0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	---	---
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	>0.1	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	>216	12	---	---
Boron	ppm	ASTM D5185m	250	51	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	39	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m	450	400	---	---
Calcium	ppm	ASTM D5185m	3000	1802	---	---
Phosphorus	ppm	ASTM D5185m	1150	1046	---	---
Zinc	ppm	ASTM D5185m	1350	1227	---	---
Sulfur	ppm	ASTM D5185m	4250	3520	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.1	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	14.2	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA06148342 **Received** : 15 Apr 2024
Lab Number : 06148342 **Tested** : 17 Apr 2024
Unique Number : 10978420 **Diagnosed** : 17 Apr 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

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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)