



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
NADINE URCIUOLI [LARRY BINKLEY]
 Machine Id
VOLVO PENTA 3020298621 - STERNDRIVE
 Component
Starboard Gearbox
 Fluid
VOLVO PENTA GL-5 SAE 75W90 (6 QTS)

RECOMMENDATION

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Gear wear is indicated.

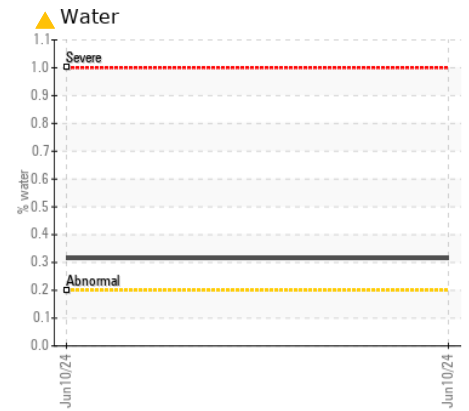
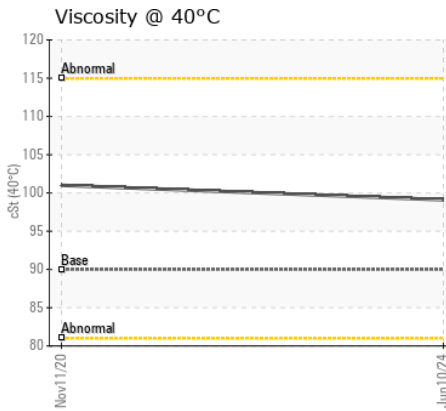
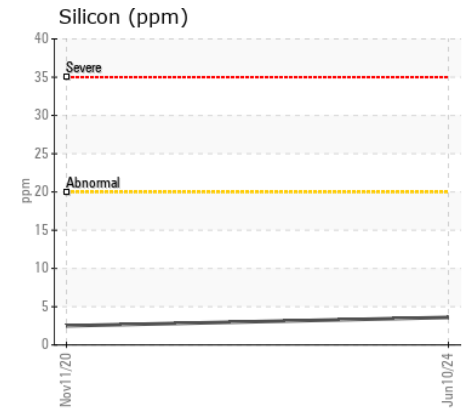
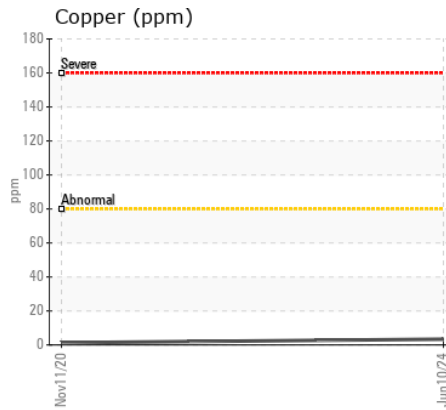
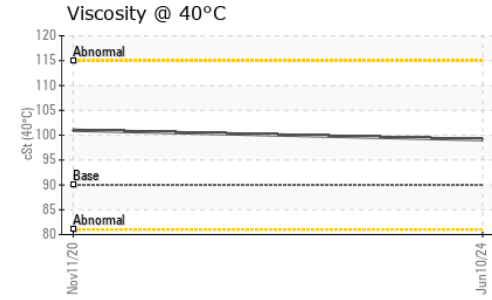
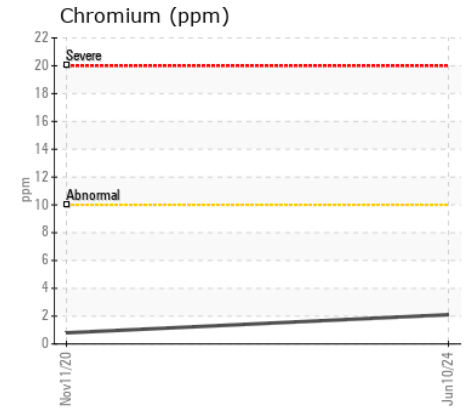
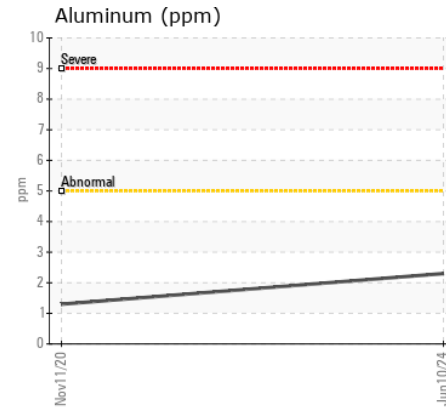
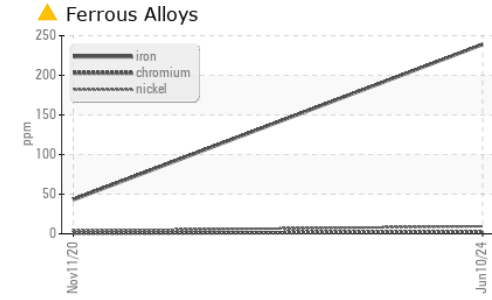
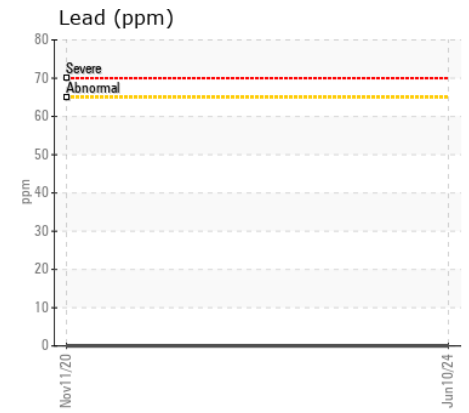
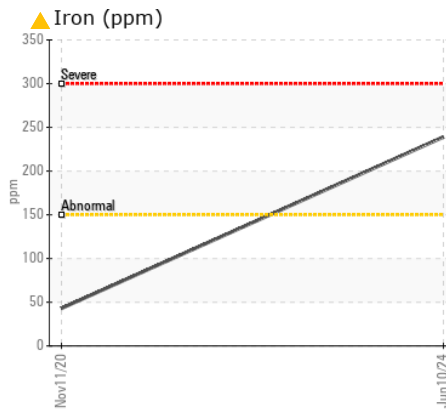
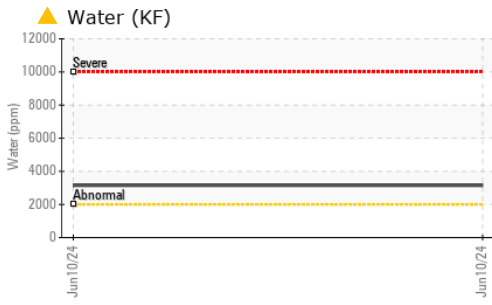
CONTAMINATION

Appearance is milky. There is a light concentration of water present in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA054848	VPA035532	---
Sample Date		Client Info		10 Jun 2024	11 Nov 2020	---
Machine Age	hrs	Client Info		224	91	---
Oil Age	hrs	Client Info		224	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				ABNORMAL	NORMAL	---
PQ		ASTM D8184		19	16	---
Iron	ppm	ASTM D5185m	>150	▲ 239	43	---
Chromium	ppm	ASTM D5185m	>10	2	<1	---
Nickel	ppm	ASTM D5185m	>10	10	4	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	1	---
Aluminum	ppm	ASTM D5185m	>5	2	1	---
Lead	ppm	ASTM D5185m	>65	0	0	---
Copper	ppm	ASTM D5185m	>80	3	1	---
Tin	ppm	ASTM D5185m	>8	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	4	2	---
Potassium	ppm	ASTM D5185m	>20	4	0	---
Water	%	ASTM D6304	>0.2	▲ 0.315	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 3150	---	---
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		29	23	---
Boron	ppm	ASTM D5185m		204	315	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	<1	---
Manganese	ppm	ASTM D5185m		5	4	---
Magnesium	ppm	ASTM D5185m		33	58	---
Calcium	ppm	ASTM D5185m		41	51	---
Phosphorus	ppm	ASTM D5185m		1420	1290	---
Zinc	ppm	ASTM D5185m		92	39	---
Sulfur	ppm	ASTM D5185m		27729	20541	---
Visc @ 40°C	cSt	ASTM D445	90.0	99.1	101	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA054848 **Received** : 18 Jun 2024
Lab Number : 06214107 **Tested** : 21 Jun 2024
Unique Number : 11086971 **Diagnosed** : 21 Jun 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: KF, PQ)

Helmuts Marine Service
 619 Canal Street
 SAN RAFAEL, CA
 US 94901-3545

Contact: NADINE URUIOLI
 SERVICE@HELMUTSMARINE.COM

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)

T: x:
 F: x: