WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

Area

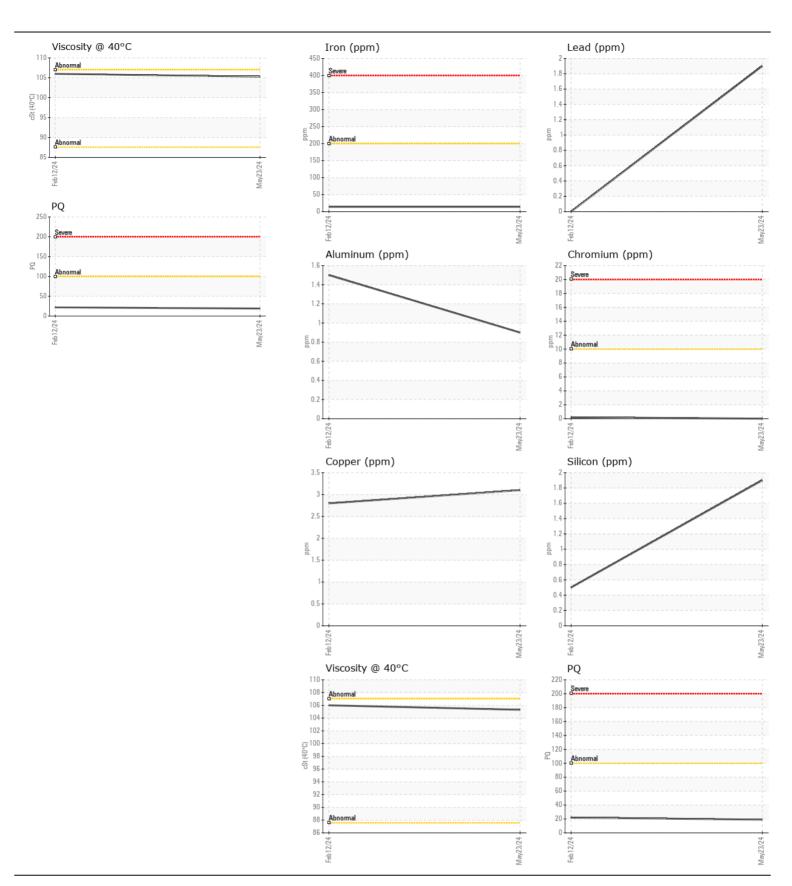
## NADINE URCIUOLI [NICK MULFORD]

**VOLVO PENTA 3200003653** 

Port IPS

VOLVO API GL-5 SAE 75W90 (4 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA051684	VPA052152	
	Sample Date		Client Info		23 May 2024	12 Feb 2024	
	Machine Age	hrs	Client Info		100	55	
	Oil Age	hrs	Client Info		55	55	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Not Changd	Not Changd	
	Sample Status				NORMAL	NORMAL	
WEAR	PQ		ASTM D8184		19	22	
All component wear rates are normal.	Iron	ppm	ASTM D5185m	>200	14	14	
	Chromium	ppm	ASTM D5185m		0	<1	
	Nickel	ppm	ASTM D5185m	>10	<1	0	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		<1	2	
	Lead	ppm	ASTM D5185m		2	0	
	Copper	ppm	ASTM D5185m		3	3	
	Tin	ppm	ASTM D5185m		<1	0	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		2	<1	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	3	3	
	Water			>0.2	NEG	NEG	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	0	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		365	327	
	Barium	ppm	ASTM D5185m		0	10	
	Molybdenum	ppm	ASTM D5185m		<1	0	
	Manganese	ppm	ASTM D5185m		2	1	
	Magnesium	ppm	ASTM D5185m		136	124	
	Calcium	ppm	ASTM D5185m		68	11	
	Phosphorus	ppm	ASTM D5185m		1483	1396	
	Zinc	ppm	ASTM D5185m		19	0	
	Sulfur	ppm	ASTM D5185m		28623	24625	
	Visc @ 40°C	cSt	ASTM D445		105.3	106	





Certificate L2367

Laboratory Sample No.

Lab Number : 06190916 Unique Number : 11047668

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VPA051684

Received **Tested** Diagnosed

Test Package : MOB 1 ( Additional Tests: PQ )

: 24 May 2024 : 24 May 2024 - Doug Bogart

: 24 May 2024

619 Canal Street SAN RAFAEL, CA US 94901-3545 Contact: NADINE URCIUOLI SERVICE@HELMUTSMARINE.COM

**Helmuts Marine Service** 

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: