WEAR CONTAMINATION FLUID CONDITION

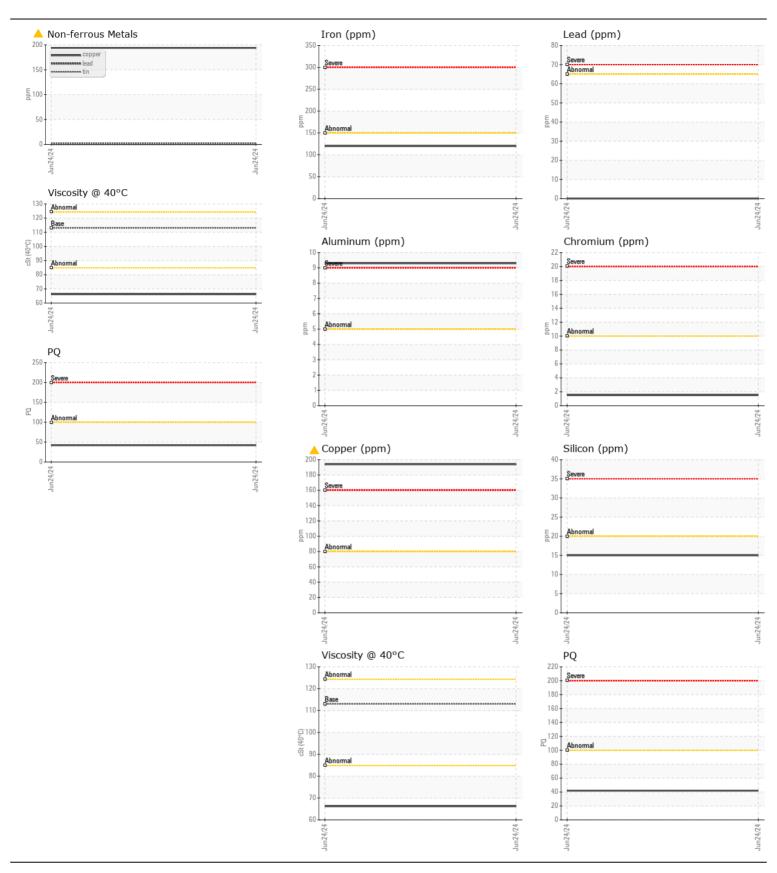
ABNORMAL NORMAL NORMAL

MAUREEN BATTERBERRY

VOLVO PENTA 51220260194 - SAIL DRIVE

Gearbox

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Number	00	Client Info	2.111071011	VPA061600		
	Sample Date		Client Info		24 Jun 2024		
	Machine Age	hrs	Client Info		509		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				ABNORMAL		
WEAD							
VEAR	PQ		ASTM D8184		42		
The copper level is abnormal. All other component wear rates are normal.	Iron	ppm	ASTM D5185m		120		
	Chromium	ppm	ASTM D5185m		2		
	Nickel	ppm	ASTM D5185m	>10	1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m		9		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		<u> </u>		
	Tin	ppm	ASTM D5185m	>8	2		
	Vanadium	ppm	ASTM D5185m		0		
	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	>20	15		
	Potassium	ppm	ASTM D5185m	>20	4		
	Water		WC Method		NEG		
	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	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		14		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m	25	12		
	Barium	ppm	ASTM D5185m		<1		
	Molybdenum	ppm	ASTM D5185m		65		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m		1003		
	Calcium	ppm		2057	1116		
	Phosphorus	ppm	ASTM D5185m		1173		
	Zinc	ppm	ASTM D5185m	1223	1307		
	Sulfur	ppm	ASTM D5185m		4965		
	-	PP.11			.500		





Certificate L2367

Laboratory Sample No.

: VPA061600 **Lab Number** : 06223778

Unique Number : 11101975

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Jun 2024 **Tested** : 01 Jul 2024

: 01 Jul 2024 - Jonathan Hester Diagnosed Test Package: MOB 1 (Additional Tests: PQ)

Endor Marine LLC - Coastal Marine - 152124

4300 11th Ave. NW SEATTLE, WA US 98107

Contact: WILLOW YANARELLA

To discuss this sample report, contact Customer Service at 1-800-237-1369. service@coastalmarineengine.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (206)784-3703 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (206)784-8823