

## Are **GEORGE SILVERMAN [7718657] VOLVO PENTA A1165118**

## Component Center Diesel Engine

## VOLVO VDS-4.5 Premium Motor Oil 15W40 (5 GAL)

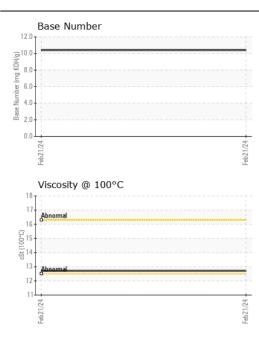
	GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA044653		
	Sample Date		Client Info		21 Feb 2024		
	Machine Age	hrs	Client Info		152		
	Oil Age	hrs	Client Info		152		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	~80	26		
	Chromium	ppm	ASTM D5185m		3		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		6		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		8		
	Lead	ppm	ASTM D5185m		3		
	Copper	ppm	ASTM D5185m		22		
	Tin	ppm	ASTM D5185m		3		
	Vanadium	ppm	ASTM D5185m	20	<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon Potassium	ppm	ASTM D5185m ASTM D5185m		22 4		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method	>20	+ <1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	20.1	NEG		
	Soot %	%	*ASTM D7844		0.4		
	Nitration	Abs/cm	*ASTM D7624	>20	6.0		
	Sulfation	Abs/.1mm	*ASTM D7415		22.1		
	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		*Visual	>0.1	NEG		
	Cadium						
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		55		
	Barium	ppm	ASTM D5185m		2 40		
	Molybdenum	ppm	ASTM D5185m				
	Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m		2 445		
	0	ppm					
	Calcium	ppm	ASTM D5185m		1471 979		
	Phosphorus	ppm	ASTM D5185m		878		
	Zinc	ppm	ASTM D5185m		1031		
	Sulfur	ppm	ASTM D5185m	. 05	3231		
	Oxidation	Abs/.1mm	*ASTM D7414	>20	19.2		
	Base Number (BN)	mg KOH/g	ASTM D2896		10.4		

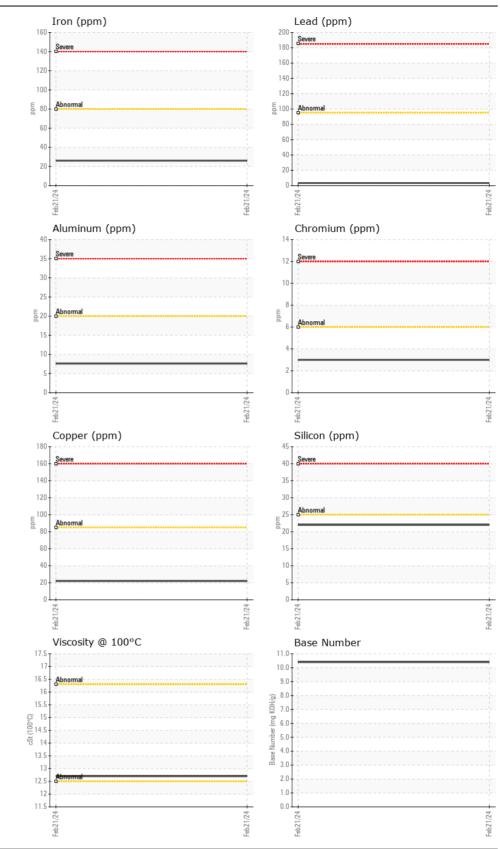
Visc @ 100°C cSt

ASTM D445

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12.7





Pacific Power Group - VP981534 Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 7215 S 228th St : VPA044653 : 27 Feb 2024 Lab Number : 06102226 Tested : 28 Feb 2024 Kent, WA Unique Number : 10900456 Diagnosed : 29 Feb 2024 - Sean Felton US 98032 Test Package : MOB 1 (Additional Tests: TBN) Contact: PAT RYAN Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. pryan@pacificpowergroup.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (253)520-5163 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: PAT RYAN - VP99031103