

SHALLCROSS Machine Id

VOLVO PENTA VOLVO PENTA D-6 (S/N NOT GIVEN)

Port Diesel Engine

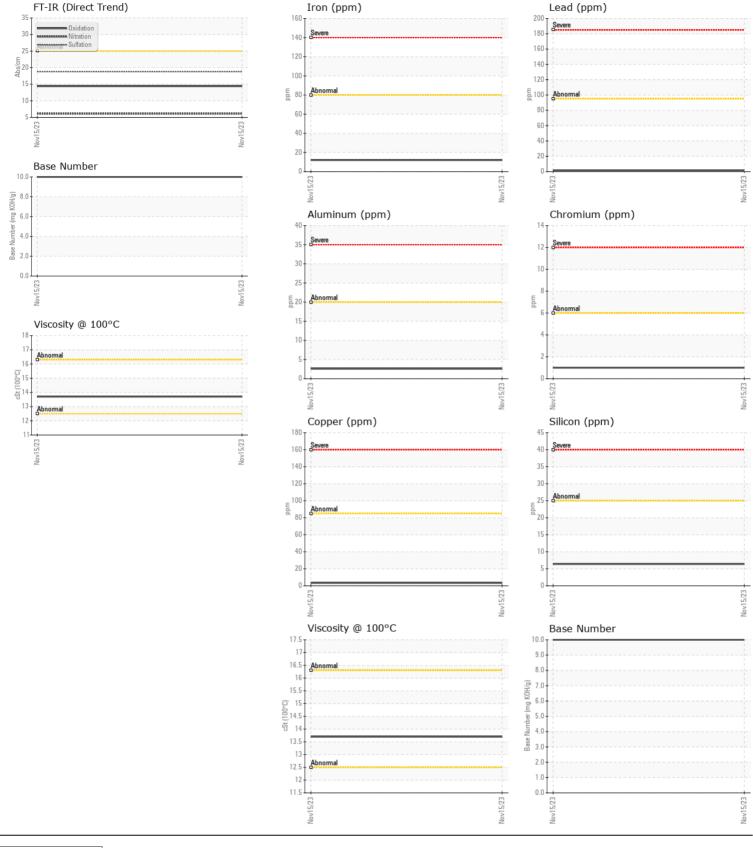
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- QTS)

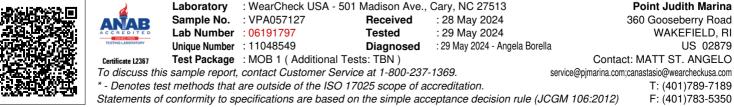
	Q (3)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA057127		
	Sample Date		Client Info		15 Nov 2023		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>80	12		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		1		
	Nickel	ppm	ASTM D5185m		1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		1		
	Aluminum	ppm	ASTM D5185m		3		
	Lead	ppm	ASTM D5185m		1		
	Copper	ppm	ASTM D5185m	>85	3		
	Tin	ppm	ASTM D5185m		1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	\ 25	6		
CONTAMINATION	Potassium	ppm	ASTM D5185m		2		
There is no indication of any contamination in the oil.	Fuel	ррпп	WC Method	>4.0	- <1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	,	NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	6.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8		
	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	Sodium	ppm	ASTM D5185m		2		
	Boron	ppm	ASTM D5185m		8		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		1		
	Molybdenum	ppm	ASTM D5185m		62		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		979		
	Calcium	ppm	ASTM D5185m		1079		
	Phosphorus	ppm	ASTM D5185m		978		
	Zinc	ppm	ASTM D5185m		1224		
	Sulfur	ppm	ASTM D5185m		3151		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4		
	Base Number (BN)			-	10.0		
		0 0					

Visc @ 100°C cSt

ASTM D445

13.7





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Contact/Location: MATT ST. ANGELO - VP153811 Page 2 of 2