

## Machine Id VV061055 Component Port Diesel Engine

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

VOLVO VDS-4.5 Premium Motor Oil 15W40	( GAL)						
Resample at the next service interval to monitor.	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0847281		
	Sample Date		Client Info		31 Oct 2023		
	Machine Age	hrs	Client Info		477		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185(m)	>80	10		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>6	<1		
	Nickel	ppm	ASTM D5185(m)	>2	1		
	Titanium	ppm	ASTM D5185(m)	>2	0		
	Silver	ppm	ASTM D5185(m)	>2	0		
	Aluminum	ppm	ASTM D5185(m)	>20	2		
	Lead	ppm	ASTM D5185(m)	>95	<1		
	Copper	ppm	ASTM D5185(m)	>85	3		
	Tin	ppm	ASTM D5185(m)	>9	0		
	Vanadium	ppm	ASTM D5185(m)		0		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	4		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	8		
	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol	%	ASTM D7922*		0.0		
	Soot %	%	ASTM D7844*		0.1		
	Nitration	Abs/cm	ASTM D7624*	>20	6.7		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8		
	Emulsified Water	scalar	Visual*	>0.1	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		3		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		164		
	Barium	ppm	ASTM D5185(m)		0		
	Molybdenum	ppm	ASTM D5185(m)		0		
	Manganese	ppm	ASTM D5185(m)		0		
	Magnesium	ppm	ASTM D5185(m)		11		
	Calcium	ppm	ASTM D5185(m)		2156		
	Phosphorus	ppm	ASTM D5185(m)		972		
	Zinc	ppm	ASTM D5185(m)		1106		
	Sulfur	ppm	ASTM D5185(m)		3135		

Oxidation

Visc @ 100°C cSt

Abs/.1mm ASTM D7414\* >25

ASTM D7279(m)

Contact/Location: Lorrie Gruhl - VP439862

17.1

14.7



