



## RICHARD FORTIER VOLVO PENTA A272702 - PORT DIESEL ENGINE

Sample No: VPA035691

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

Report Id: VP153550 [WUSCAR] 06011387 (Generated: 11/21/2023 12:20:40) Rev: 1

Base Number (BN) mg KOH/g					
Sample Date   24 Oct 2023   28 Oct 2022	SAMPLE INFORMAT	TION			
Sample Date   24 Oct 2023   28 Oct 2022	Sample Number		VPA035691	VPA035693	 
Machine Hours	•				 
15	•				 
Not Change   Not Change   Not Change   Normal   Normal					 
NORMAL   N					
Dil CONDITION   Dil CONTAMINATION   DIL	_		_		
Misca   100°C   CSt			NORWAL	NONVAL	
Base Number (BN) mg KOH/g	OIL CONDITION				
CONTAMINATION   Water   %   NEG   NEG       Nitration (PA)   %   Ø   Ø   Ø   Ø   Ø   Ø   Ø   Ø   Ø	Visc @ 100°C	cSt	<b>14.0</b>	■13.4	 
CONTAMINATION   Water	Base Number (BN)	mg KOH/g	■8.6	□10.5	 
NEG   NEG	Oxidation (PA)	%	61	53	 
NEG   NEG	CONTAMINATION				
Soot %		%	NEG	NEG	 
Nitration (PA) % 43 41 Sulfation (PA) % 54 51 Sulfation (PA) % 54 51 Sulfation (PA) % NEG NEG NEG Sulfation (PA) % NEG NEG NEG Sulfation (PA) % NEG NEG NEG Sulfation (PA) % (NEG NEG NEG NEG NEG NEG NEG NEG NEG NEG					
Sulfation (PA)			_	_	
NEG   NEG	` '				
Fuel					
Solition ppm	-				
Sodium					
VEAR METALS   VEAR METALS   VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR METALS   VEAR METALS     VEAR M					
WEAR METALS           Iron         ppm         7         5  <					
Tron	Potassium	ppm	<b>1</b> 7	<b>-</b> <1	 
Copper         ppm         2         1             Lead         ppm         0         <1	WEAR METALS				
Lead	Iron	ppm	<b>7</b>	<u>5</u>	 
Lead	Copper		<b>2</b>		 
Tin ppm 0 < 1	Lead		<b>■</b> 0		 
Aluminum ppm	Tin				 
Chromium ppm 0	Aluminum				 
Molybdenum ppm			_		 
Nickel         ppm         <1			_		 
Titanium ppm			_		 
Silver         ppm         0             Manganese         ppm         0         0             Vanadium         ppm         0         0             ADDITIVES           Calcium         ppm         1795         1081             Magnesium         ppm         207         888             Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0			_		
Manganese         ppm         0             Vanadium         ppm         0             ADDITIVES           Calcium         ppm         1795         1081             Magnesium         ppm         207         888             Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0			_		
Vanadium         ppm         0         0             ADDITIVES           Calcium         ppm         1795         1081             Magnesium         ppm         207         888             Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0					
ADDITIVES  Calcium ppm 1795 1081  Magnesium ppm 207 888  Zinc ppm 1090 1227  Phosphorus ppm 956 1019  Barium ppm 0 0	•				 
Calcium         ppm         1795         1081             Magnesium         ppm         207         888             Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0		ррш	· ·	0	
Magnesium         ppm         207         888             Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0	ADDITIVES				
Zinc         ppm         1090         1227             Phosphorus         ppm         956         1019             Barium         ppm         0         0	Calcium	ppm	<b>1795</b>	■1081	 
Phosphorus         ppm         956         1019             Barium         ppm         0         0	Magnesium	ppm	<b>207</b>	■888	 
Phosphorus         ppm         956         1019             Barium         ppm         0         0	Zinc	ppm	<b>1090</b>	<b>1227</b>	 
Barium ppm <b>□0</b> □0	Phosphorus		<b>■</b> 956	■1019	 
	Barium				 
	Boron				 

## **Power Products Systems LLC**

90 Bay State Road WAKEFIELD, MA US 01880 Contact: ERIC JELLISON ejellison@nedda.com T: (781)831-8924 F:

## Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. 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.

 Depot:
 VP153550

 Unique No:
 10750531

 Signed:
 Sean Felton

 Report Date:
 21 Nov 2023

## **OIL ANALYSIS REPORT**



