



## LA VIE MAB522800 VOLVO PENTA 5102034499C - PORT DIESEL ENGINE

Sample No: VPA046622

Oil Type: DIESEL ENGINE OIL SAE 15W40

Machine Hours					
Sample Date	SAMPLE INFORMAT	TION			
Sample Date	Sample Number		VPA046622	 	
Machine Hours	Sample Date		18 Oct 2023	 	
Oil Changed   Not Changed   NoRMAL        Oil CONDITION    Visc @ 100°C   CSt   13.7       Base Number (BN)   mg KOH/g   9.0        CONTAMINATION    Soot %   Ø   0.1        Nitration (PA) %   40        Sulfation (PA) %   50        Glycol   %   NEG        Fuel   %   < 1.0      Silicion   ppm   3        Sodium   ppm   3        Potassium   ppm   3        Lead   ppm   0        Aluminum   ppm   2   1      Aluminum   ppm   45      Nickel   ppm   0      Manganese   ppm   0      Manganese   ppm   0      Manganesium   ppm   1360      Manganesium   ppm   1356      Barium   ppm   1035      Manganesum   ppm   1035      Manganesum   ppm   1035      Manganesum   ppm   1035      Barium   ppm   100      Manganesum   ppm   1035      Barium   ppm   100      Manganesum   ppm   1035      Barium   ppm   100      Manganesum   ppm   100      Mangane	Machine Hours		0	 	
NORMAL	Oil Hours		0	 	
Dil CONDITION   DIL CONDITIO	Oil Changed		Not Changd	 	
Visc @ 100°C	Sample Status		NORMAL	 	
Visc @ 100°C	OIL CONDITION				
Base Number (BN) mg KOH/g		cS+	<b>12</b> 7	 	
CONTAMINATION	_				
CONTAMINATION   Soot %	, ,			 	
Soot %		70			
Nitration (PA)	CONTAMINATION				
Sulfation (PA)	Soot %	%	■0.1	 	
Silicon   Sili	Nitration (PA)	%	40	 	
Fuel % <1.0 Silicon ppm 3 Sodium ppm 3 Sodium ppm 3	Sulfation (PA)	%	50	 	
Solicon ppm 3	Glycol	%	NEG	 	
Sodium	Fuel	%	<1.0	 	
WEAR METALS           Iron         ppm         4              Copper         ppm         0              Lead         ppm         0              Aluminum         ppm         2              Chromium         ppm         45              Molybdenum         ppm         0              Nickel         ppm         0              Titanium         ppm         0              Silver         ppm         0              Vanadium         ppm         0              ADDITIVES               Calcium         ppm         1360              Phosphorus         ppm         1035              Barium         ppm         0         <	Silicon	ppm	<b>■</b> 3	 	
WEAR METALS           Iron         ppm         4              Copper         ppm         0              Lead         ppm         0              Aluminum         ppm         2              Aluminum         ppm         2              Chromium         ppm         45              Molybdenum         ppm         0              Nickel         ppm         0              Nickel         ppm         0              Silver         ppm         0              Manganese         ppm         0              Vanadium         ppm         1360              ADDITIVES               Zinc         ppm         1355	Sodium	ppm	<b>■&lt;1</b>	 	
Tron	Potassium	ppm	<b>■</b> 3	 	
Copper	WEAR METALS				
Copper         ppm  <	Iron	ppm	<b>□</b> 4	 	
Tin ppm   <1	Copper		<b>■&lt;1</b>	 	
Aluminum ppm 2	Lead	ppm	<b>■</b> 0	 	
Chromium ppm	Tin	ppm	<b>■&lt;1</b>	 	
Molybdenum         ppm         45  -	Aluminum	ppm	<b>2</b>	 	
Nickel         ppm         0 <td>Chromium</td> <td>ppm</td> <td><b>■</b>&lt;1</td> <td> </td> <td></td>	Chromium	ppm	<b>■</b> <1	 	
Titanium ppm 0 Silver ppm 0 Silver ppm 0 Silver ppm 0	Molybdenum	ppm	<b>45</b>	 	
Silver ppm 0 Manganese ppm 0	Nickel	ppm	<b>■</b> 0	 	
Manganese         ppm         <1              Vanadium         ppm         0              ADDITIVES           Calcium         ppm         1360              Magnesium         ppm         761              Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	Titanium	ppm	■ 0	 	
Vanadium         ppm         0              ADDITIVES           Calcium         ppm         1360              Magnesium         ppm         761              Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	Silver	ppm	<b>0</b>	 	
ADDITIVES  Calcium ppm 1360  Magnesium ppm 761  Zinc ppm 1295  Phosphorus ppm 1035  Barium ppm 0	Manganese	ppm		 	
Calcium         ppm         1360              Magnesium         ppm         761              Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	Vanadium	ppm	0	 	
Magnesium         ppm         761              Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	ADDITIVES				
Magnesium         ppm         761              Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	Calcium	ppm	<b>1360</b>	 	
Zinc         ppm         1295              Phosphorus         ppm         1035              Barium         ppm         0	Magnesium			 	
Phosphorus         ppm         ■ 1035              Barium         ppm         ■ 0	Zinc			 	
Barium ppm <b>□0</b>	Phosphorus			 	
Boron ppm <b>46</b>	Barium			 	
	Boron		<b>46</b>	 	

## STEWART AND STEVENSON (ADDA)

PO BOX 950 LODI, NJ US 07644 Contact: DAVID TAGLIERI d.taglieri@kirbycorp.com T: (508)263-5502 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 suitable for further service.

Depot:VP166699Unique No:10710533Signed:Don BaldridgeReport Date:26 Oct 2023

## **OIL ANALYSIS REPORT**



