## **OIL ANALYSIS REPORT**



## HANNA VOLVO PENTA 3940014993 - PORT IPS

Sample No: VPA043289

Oil Type: VOLVO API GL-5 SAE 75W90

SAMPLE INFORMATION           Sample Number         VPA043289              Sample Date         06 Feb 2024              Machine Hours         0              Oil Hours         0              Oil Changed         Not Changd              Sample Status         SEVERE              OIL CONDITION               Vater         %         3.89              Solium         ppm         334              Potasium         ppm         334              Potasium         ppm         228              Solium         ppm         34              Potasium         ppm         0              Goper         ppm         0         <					
Sample Date         06 Feb 2024               Machine Hours         1100               Oil Hours         0               Sample Status         SEVERE               OIL CONDITION                Visc @ 40°C         cSt         121              CONTAMINATION                Water         %         3.89              Solium         ppm         334              Potassium         ppm         14              WEAR METALS                PQ         34               Iron         ppm         22              Copper         ppm         22 <th>SAMPLE INFORM</th> <th>ATION</th> <th></th> <th></th> <th></th>	SAMPLE INFORM	ATION			
Sample Date         06 Feb 2024               Machine Hours         1100               Oil Hours         0               Sample Status         SEVERE               OIL CONDITION                Visc @ 40°C         cSt         121              CONTAMINATION                Water         %         3.89              Solium         ppm         334              Potassium         ppm         14              WEAR METALS                PQ         34               Iron         ppm         22              Copper         ppm         22 <td>Sample Number</td> <td></td> <td>VPA043289</td> <td> </td> <td></td>	Sample Number		VPA043289	 	
Machine Hours       1100            Oil Hours       0            Oil Changed       Not Changd            Sample Status       SEVERE            OIL CONDITION             COTAMINATION             Water       %       3.89            Solicon       ppm       334            Solium       ppm       334            VEAR METALS             Veact       ppm       228            Solium       ppm       334            Veactsium       ppm       228            Iron       ppm       228            Iron       ppm       228            Iron       ppm       22 </td <td></td> <td></td> <td>06 Feb 2024</td> <td> </td> <td></td>			06 Feb 2024	 	
Not Changed Sample Status         Not Changed SEVERE              OIL CONDITION               Visc @ 40°C         CSt         121              CONTAMINATION                Water         %         9.899              Solition         ppm         4.228              Potassium         ppm         14              Potassium         ppm         2.28              Potassium         ppm         14              Potassium         ppm         2.28              Iron         ppm         2.28               Iron         ppm         2.28               Iron         ppm         2.22               Aluminum	-		1100	 	
Sample Status         SEVERE              OIL CONDITION               Visc @ 40°C         cSt         121              CONTAMINATION                Water         %         • 3.89              Solicon         ppm         • 328              Solicon         ppm         • 334              Potassium         ppm         • 14              WEAR METALS                PQ         • 34               Iron         ppm         0               Lead         ppm<0	Oil Hours		0	 	
Sample Status         SEVERE              OIL CONDITION               Visc @ 40°C         cSt         121              CONTAMINATION                Water         %         • 3.89              Solicon         ppm         • 328              Solicon         ppm         • 334              Potassium         ppm         • 14              WEAR METALS                PQ         • 34               Iron         ppm         0               Lead         ppm<0	Oil Changed		Not Changd	 	
Visc @ 40°C       cSt       121            CONTAMINATION             Water       %       3.89            Silicon       ppm       228            Sodium       ppm       334            Potassium       ppm       14            WEAR METALS       P       34            PQ       34             Iron       ppm       258             Copper       ppm       0             Lead       ppm       0             Aluminum       ppm       2             Kickel       ppm       1            Molybdenum       ppm       0            Silver       ppm       0				 	
CONTAMINATION         Water       %       3.89            Silicon       ppm       228            Sodium       ppm       334            Potassium       ppm       14            WEAR METALS             PQ       34            Iron       ppm       258            Copper       ppm       0            Lead       ppm       0             Aluminum       ppm       6             Molybdenum       ppm       1               Nickel       ppm       0 <td>OIL CONDITION</td> <td></td> <td></td> <td></td> <td></td>	OIL CONDITION				
Water       %       3.89            Silicon       ppm       334            Potassium       ppm       14            WEAR METALS             PQ       34            Iron       ppm       258            Copper       ppm       22            Lead       ppm       0            Aluminum       ppm       6            Molybdenum       ppm       1            Nickel       ppm       0            Silver       ppm       0            Silver       ppm       0            Magnese       ppm       0            Kordium       ppm       54            Phosphorus <t< td=""><td>Visc @ 40°C</td><td>cSt</td><td>121</td><td> </td><td></td></t<>	Visc @ 40°C	cSt	121	 	
Silicon       ppm       228            Sodium       ppm       334            Potassium       ppm       14            WEAR METALS             PQ       34            Iron       ppm       258            Copper       ppm       0            Lead       ppm       0            Aluminum       ppm       6            Aluminum       ppm       1            Molybdenum       ppm       1            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Magnesium       ppm       54            Magnesium	CONTAMINATION				
Sodium       ppm       334            Potassium       ppm       14            WEAR METALS             PQ       34            Iron       ppm       258            Copper       ppm       0            Lead       ppm       0            Aluminum       ppm       6            Aluminum       ppm       1            Molybdenum       ppm       0            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Magnesium       ppm       54            Magnesium       ppm       1334            Barium	Water	%	• 3.89	 	
Potassium         ppm         14              WEAR METALS         PQ         34              Iron         ppm         258              Copper         ppm         222              Lead         ppm         0              Aluminum         ppm         2              Aluminum         ppm         6              Molybdenum         ppm         1              Nickel         ppm         0              Silver         ppm         0              Manganese         ppm         0              ADDITIVES                Magnesium         ppm         54              Phosphorus         ppm         1334         <	Silicon	ppm	<u> </u>	 	
Potassium         ppm         14              WEAR METALS         PQ         34              Iron         ppm         258              Copper         ppm         222              Lead         ppm         0              Aluminum         ppm         2              Aluminum         ppm         6              Molybdenum         ppm         1              Nickel         ppm         0              Nickel         ppm         0              Manganese         ppm         0              Vanadium         ppm         54              Magnesium         ppm         55              Phosphorus         ppm         1334 <td>Sodium</td> <td></td> <td>334</td> <td> </td> <td></td>	Sodium		334	 	
PQ       34            Iron       ppm       258            Copper       ppm       22            Lead       ppm       0            Tin       ppm       2            Aluminum       ppm       6            Chromium       ppm       2            Molybdenum       ppm       1            Nickel       ppm       0            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       54            Magnesium       ppm       55            Phosphorus       ppm       1334            Barium	Potassium		<b>1</b> 4	 	
Iron       ppm       258            Copper       ppm       22            Lead       ppm       0            Tin       ppm       2            Aluminum       ppm       6            Aluminum       ppm       2            Aluminum       ppm       6            Aluminum       ppm       2            Molybdenum       ppm       1            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       115            Magnesium       ppm       54            Phosphorus       ppm       1334	WEAR METALS				
Iron       ppm       258            Copper       ppm       22            Lead       ppm       0            Tin       ppm       2            Aluminum       ppm       6            Aluminum       ppm       2            Aluminum       ppm       6            Aluminum       ppm       2            Molybdenum       ppm       1            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       115            Magnesium       ppm       54            Phosphorus       ppm       1334	PQ		34	 	
Copper         ppm         22              Lead         ppm         0              Tin         ppm         2              Aluminum         ppm         6              Aluminum         ppm         2              Molybdenum         ppm         1              Molybdenum         ppm         2              Nickel         ppm         0              Silver         ppm         0              Manganese         ppm         0              Vanadium         ppm         0              Calcium         ppm         115              Magnesium         ppm         54              Phosphorus         ppm         1334		ppm		 	
Lead       ppm       0            Tin       ppm       2            Aluminum       ppm       6            Aluminum       ppm       2            Chromium       ppm       2            Molybdenum       ppm       1            Nickel       ppm       2            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       0            ADDITIVES              Magnesium       ppm       54            Phosphorus       ppm       1334            Barium       ppm       2				 	
Tin       ppm       2            Aluminum       ppm       6            Chromium       ppm       2            Molybdenum       ppm       1            Nickel       ppm       2            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       0            Adgnesium       ppm       115            Magnesium       ppm       54            Phosphorus       ppm       1334            Barium       ppm       2	Lead		0	 	
Chromium       ppm       2            Molybdenum       ppm       1            Nickel       ppm       2            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       14            Vanadium       ppm       0            ADDITIVES             Calcium       ppm       54            Magnesium       ppm       55            Phosphorus       ppm       1334            Barium       ppm       2	Tin		2	 	
Chromium       ppm       2            Molybdenum       ppm       1            Nickel       ppm       2            Titanium       ppm       0            Silver       ppm       0            Manganese       ppm       0            Vanadium       ppm       0            ADDITIVES             Kagnesium       ppm       54            Phosphorus       ppm       1334            Barium       ppm       2	Aluminum	ppm	6	 	
Molybdenum         ppm         1              Nickel         ppm         2              Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         4              Vanadium         ppm         0              ADDITIVES               Magnesium         ppm         54              Phosphorus         ppm         1334              Barium         ppm         2	Chromium		2	 	
Nickel         ppm         2              Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         4              Vanadium         ppm         0              ADDITIVES               Kagnesium         ppm         115              Magnesium         ppm         54              Phosphorus         ppm         1334              Barium         ppm         2	Molybdenum		<b>1</b>	 	
Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         4              Vanadium         ppm         0              ADDITIVES               Calcium         ppm         115              Magnesium         ppm         54              Zinc         ppm         55              Phosphorus         ppm         1334              Barium         ppm         2	Nickel		2	 	
Manganese         ppm         4              Vanadium         ppm         0               ADDITIVES                 Calcium         ppm         115               Magnesium         ppm         54               Zinc         ppm         55               Phosphorus         ppm         1334              Barium         ppm         2	Titanium		0	 	
Vanadium         ppm         0              ADDITIVES         Calcium         ppm         115              Calcium         ppm         54               Magnesium         ppm         55               Phosphorus         ppm         1334               Barium         ppm         2	Silver	ppm	0	 	
ADDITIVES Calcium ppm 115 Magnesium ppm 554 Zinc ppm 555 Phosphorus ppm 1334 Barium ppm 2	Manganese	ppm	<b>4</b>	 	
Calcium         ppm         115             Magnesium         ppm         54              Zinc         ppm         55              Phosphorus         ppm         1334              Barium         ppm         2	Vanadium	ppm	0	 	
Magnesium         ppm         54              Zinc         ppm         55              Phosphorus         ppm         1334              Barium         ppm         2	ADDITIVES				
Magnesium         ppm         54              Zinc         ppm         55              Phosphorus         ppm         1334              Barium         ppm         2	Calcium	ppm	115	 	
Zinc         ppm         55              Phosphorus         ppm         1334              Barium         ppm         2			54	 	
Phosphorus         ppm         1334              Barium         ppm         2	2		55	 	
Barium ppm <b>2</b>	Phosphorus		<b>1334</b>	 	
	Boron			 	

Jas Marine Service Inc

3131 SW 2Nd Ave. FORT LAUDERDALE, FL US 33315 Contact: JASON TOLEDO (ason@jasmarine.com T: (954)462-1112 c.

## Diagnosis

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.Gear wear is indicated. There is a high concentration of water present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil is no longer serviceable due to the presence of contaminants.

 Depot:
 VP426065

 Unique No:
 10872959

 Signed:
 Jonathan Hester

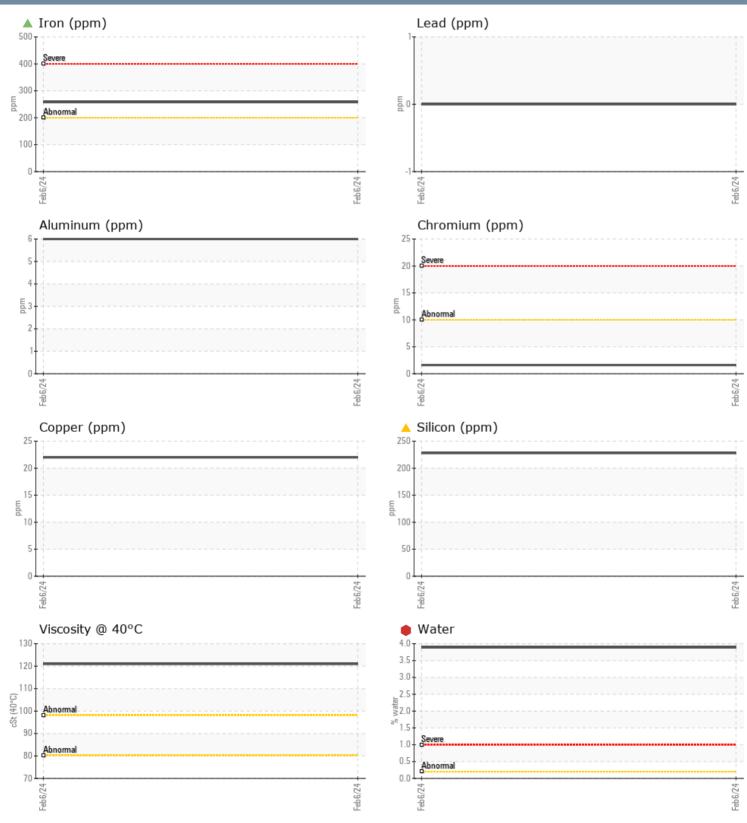
 Report Date:
 13 Feb 2024

Contact/Location: JASON TOLEDO - VP426065

## **OIL ANALYSIS REPORT**







Report Id: VP426065 [WUSCAR] 06085514 (Generated: 02/13/2024 10:56:22) Rev: 1

Contact/Location: JASON TOLEDO - VP426065