

# OIL ANALYSIS REPORT

# VOLVO PENTA

**DEVEN PITT 318802 3940016535 - STARBOARD IPS**

**Sample No:** VPA056626

**Oil Type:** VOLVO API GL-5 SAE 75W90

## SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA056626   | --- | --- | --- |
| Sample Date   | 15 Jul 2023 | --- | --- | --- |
| Machine Hours | 1047        | --- | --- | --- |
| Oil Hours     | 1046        | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | ABNORMAL    | --- | --- | --- |

## OIL CONDITION

|                      |       |        |     |     |     |
|----------------------|-------|--------|-----|-----|-----|
| Visc @ 40°C          | cSt   | █ 109  | --- | --- | --- |
| Visc @ 100°C         | cSt   | █ 27.1 | --- | --- | --- |
| Viscosity Index (VI) | Scale | 283    | --- | --- | --- |

## CONTAMINATION

|           |     |         |     |     |     |
|-----------|-----|---------|-----|-----|-----|
| Water     | %   | ▲ 0.617 | --- | --- | --- |
| Silicon   | ppm | █ 30    | --- | --- | --- |
| Sodium    | ppm | █ 51    | --- | --- | --- |
| Potassium | ppm | █ 2     | --- | --- | --- |

## WEAR METALS

|            |     |       |     |     |     |
|------------|-----|-------|-----|-----|-----|
| PQ         |     | █ 0   | --- | --- | --- |
| Iron       | ppm | ▲ 544 | --- | --- | --- |
| Copper     | ppm | ▲ 48  | --- | --- | --- |
| Lead       | ppm | 4     | --- | --- | --- |
| Tin        | ppm | 0     | --- | --- | --- |
| Aluminum   | ppm | ▲ 12  | --- | --- | --- |
| Chromium   | ppm | █ 5   | --- | --- | --- |
| Molybdenum | ppm | █ 2   | --- | --- | --- |
| Nickel     | ppm | █ 6   | --- | --- | --- |
| Titanium   | ppm | <1    | --- | --- | --- |
| Silver     | ppm | 1     | --- | --- | --- |
| Manganese  | ppm | █ 5   | --- | --- | --- |
| Vanadium   | ppm | 0     | --- | --- | --- |

## ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | 9      | --- | --- | --- |
| Magnesium  | ppm | █ 7    | --- | --- | --- |
| Zinc       | ppm | 24     | --- | --- | --- |
| Phosphorus | ppm | █ 1387 | --- | --- | --- |
| Barium     | ppm | █ 1    | --- | --- | --- |
| Boron      | ppm | █ 235  | --- | --- | --- |

### HINDSON MARINE SERVICE INC

79 CHAMPLAIN ROAD, P.O. BOX 5025  
Penetanguishene, ON  
CA L9M 2G2  
Contact: Pat Walker  
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### Diagnosis

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition. Iron, aluminum and copper ppm levels are abnormal. There is a moderate concentration of water present in the oil. Elemental level of calcium (Ca) indicates contamination with brine (salt water). The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** ROB79PEN  
**Unique No:** 5620334  
**Signed:** Kevin Marson  
**Report Date:** 14 Aug 2023

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## GRAPHS

