

# OIL ANALYSIS REPORT

# VOLVO PENTA

## INNOVATION NOT GIVEN VPA056678 - GASOLINE ENGINE

Sample No: VPA056678

Oil Type: MOBIL 1 FORMULA 15W50

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA056678   | --- | --- | --- |
| Sample Date   | 07 Aug 2023 | --- | --- | --- |
| Machine Hours | 0           | --- | --- | --- |
| Oil Hours     | 1           | --- | --- | --- |
| Oil Changed   | N/A         | --- | --- | --- |
| Sample Status | SEVERE      | --- | --- | --- |

### OIL CONDITION

|                  |          |         |     |     |     |
|------------------|----------|---------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 16.73 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 14.9  | --- | --- | --- |
| Oxidation (PA)   | %        | 12      | --- | --- | --- |

### CONTAMINATION

|                |     |        |     |     |     |
|----------------|-----|--------|-----|-----|-----|
| Water          | %   | 🔴 2.02 | --- | --- | --- |
| Soot %         | %   | █ 0.1  | --- | --- | --- |
| Nitration (PA) | %   | 12     | --- | --- | --- |
| Sulfation (PA) | %   | 7      | --- | --- | --- |
| Glycol         | %   | NEG    | --- | --- | --- |
| Fuel           | %   | <1.0   | --- | --- | --- |
| Silicon        | ppm | 🔴 76   | --- | --- | --- |
| Sodium         | ppm | █ 19   | --- | --- | --- |
| Potassium      | ppm | █ 6    | --- | --- | --- |

### WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | █ 21 | --- | --- | --- |
| Copper     | ppm | █ 48 | --- | --- | --- |
| Lead       | ppm | █ 14 | --- | --- | --- |
| Tin        | ppm | █ <1 | --- | --- | --- |
| Aluminum   | ppm | █ 4  | --- | --- | --- |
| Chromium   | ppm | █ 4  | --- | --- | --- |
| Molybdenum | ppm | █ 65 | --- | --- | --- |
| Nickel     | ppm | █ <1 | --- | --- | --- |
| Titanium   | ppm | <1   | --- | --- | --- |
| Silver     | ppm | █ <1 | --- | --- | --- |
| Manganese  | ppm | 1    | --- | --- | --- |
| Vanadium   | ppm | <1   | --- | --- | --- |

### ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 988  | --- | --- | --- |
| Magnesium  | ppm | █ 579  | --- | --- | --- |
| Zinc       | ppm | █ 1034 | --- | --- | --- |
| Phosphorus | ppm | █ 965  | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 90   | --- | --- | --- |

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### Diagnosis

We advise that you check for the source of water entry. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. Appearance is milky. 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: VP10661  
Unique No: 10591902  
Signed: Jonathan Hester  
Report Date: 14 Aug 2023

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## GRAPHS

