

OIL ANALYSIS REPORT



JOHN LUGGER SAM VOLVO PENTA 3950002690 - PORT IPS

Sample No: VPA060419

Oil Type: VOLVO API GL-5 SAE 75W90

SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VPA060419 | VPA048934 | VPA037051 | VPA030681 |
| Sample Date | 13 Mar 2024 | 11 Nov 2022 | 01 Feb 2022 | 02 Mar 2020 |
| Machine Hours | 1462 | 0 | 0 | 451 |
| Oil Hours | 0 | 178 | 0 | 0 |
| Oil Changed | Changed | Not Changd | Changed | Changed |
| Sample Status | NORMAL | NORMAL | ATTENTION | ATTENTION |

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 US 98107
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OIL CONDITION

| | | | | | |
|-------------|-----|------------|-----|-----|------|
| Visc @ 40°C | cSt | 105 | 106 | 105 | 98.9 |
|-------------|-----|------------|-----|-----|------|

CONTAMINATION

| | | | | | |
|-----------|-----|--------------|-----|-----|-------|
| Water | % | NEG | NEG | NEG | 0.205 |
| Silicon | ppm | 5 | 6 | 3 | 4 |
| Sodium | ppm | 4 | 4 | 24 | 7 |
| Potassium | ppm | <1 | <1 | 2 | 0 |

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 condition of the oil is acceptable for the time in service.

WEAR METALS

| | | | | | |
|------------|-----|--------------|-----|-----|----|
| PQ | | 29 | 20 | 23 | 27 |
| Iron | ppm | 107 | 117 | 277 | 60 |
| Copper | ppm | 7 | 5 | 11 | 5 |
| Lead | ppm | <1 | <1 | 1 | 0 |
| Tin | ppm | <1 | <1 | <1 | 0 |
| Aluminum | ppm | 6 | 5 | 16 | 4 |
| Chromium | ppm | 1 | 1 | 3 | <1 |
| Molybdenum | ppm | <1 | <1 | <1 | 0 |
| Nickel | ppm | 1 | <1 | 2 | <1 |
| Titanium | ppm | <1 | 0 | <1 | <1 |
| Silver | ppm | 0 | <1 | <1 | 0 |
| Manganese | ppm | 2 | 2 | 4 | 3 |
| Vanadium | ppm | <1 | 0 | 0 | 0 |

ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 7 | 5 | 7 | 14 |
| Magnesium | ppm | 1 | <1 | 13 | 50 |
| Zinc | ppm | 46 | 19 | 188 | 7 |
| Phosphorus | ppm | 1160 | 1369 | 1473 | 1415 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 276 | 287 | 270 | 285 |

Depot: VP794951
Unique No: 10938136
Signed: Don Baldrige
Report Date: 22 Mar 2024

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**VOLVO
PENTA**

GRAPHS

