



OIL ANALYSIS REPORT

| | |
|-----------------|----------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | ABNORMAL |

Area

[142229]

Machine Id

VOLVO PENTA WALLACEBURY WTP

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (75 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|-------------|
| Sample Number | | Client Info | | WC0919644 | WC0668166 | WC101325 |
| Sample Date | | Client Info | | 05 Apr 2024 | 27 Apr 2022 | 23 May 2019 |
| Machine Age | hrs | Client Info | | 303 | 256 | 182 |
| Oil Age | hrs | Client Info | | 0 | 0 | 6 |
| Filter Age | hrs | Client Info | | 0 | 0 | 6 |
| Oil Changed | | Client Info | | N/A | Not Changd | Not Changd |
| Filter Changed | | Client Info | | N/A | Not Changd | Not Changd |
| Sample Status | | | | ABNORMAL | SEVERE | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|----|----|----|
| Iron | ppm | ASTM D5185(m) | >120 | 1 | 2 | 2 |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185(m) | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | 1 | 1 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | 1 | <1 |
| Copper | ppm | ASTM D5185(m) | >300 | 1 | 5 | 3 |
| Tin | ppm | ASTM D5185(m) | >10 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

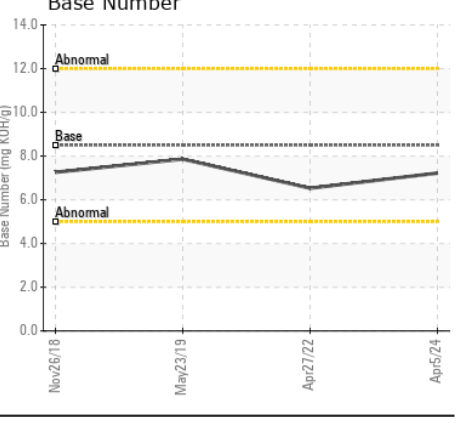
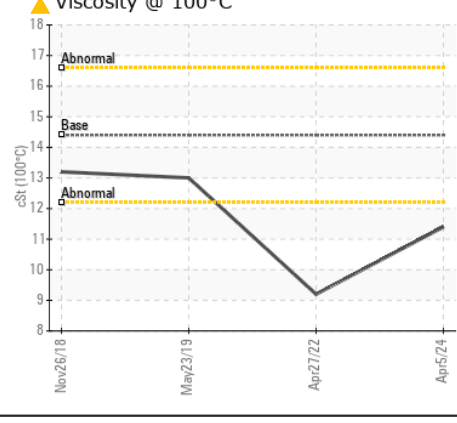
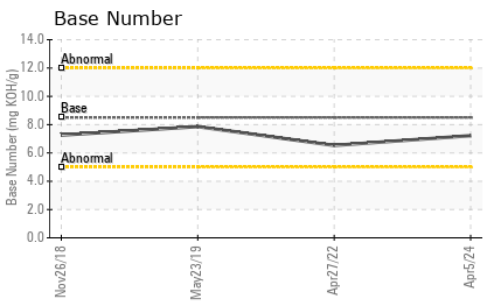
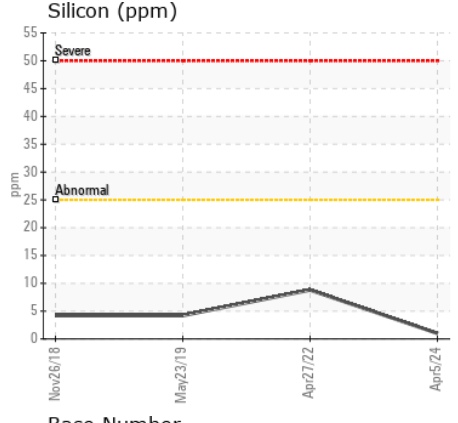
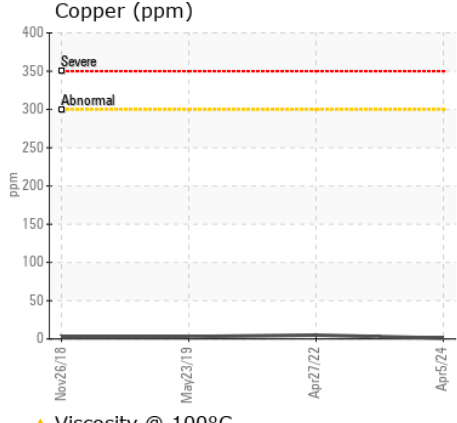
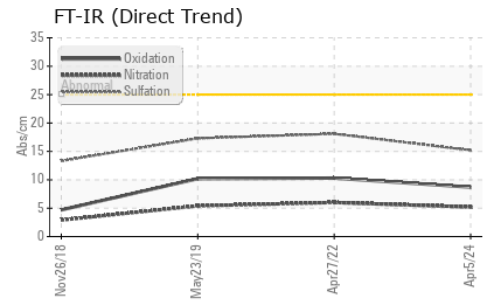
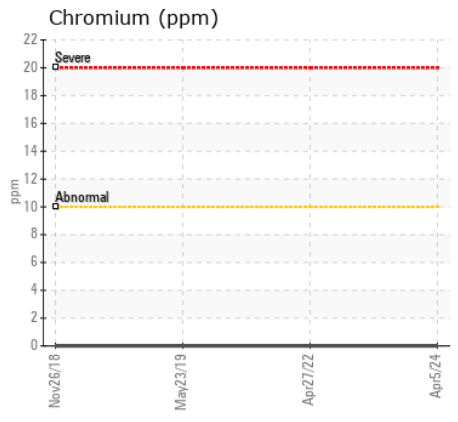
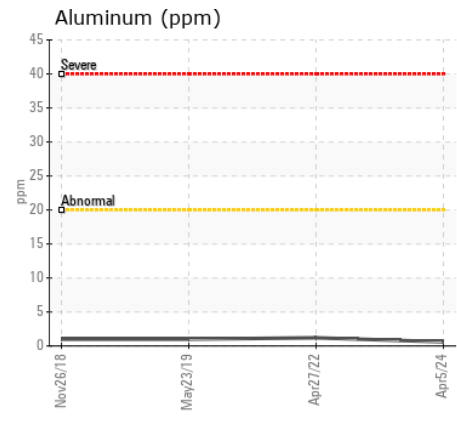
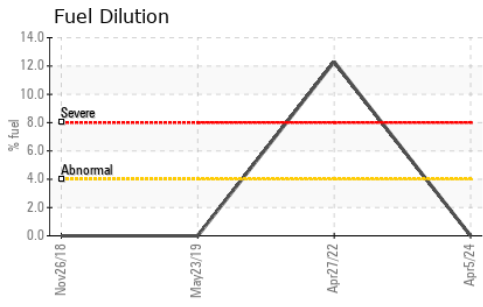
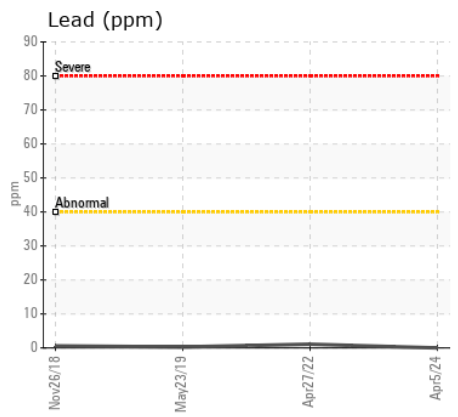
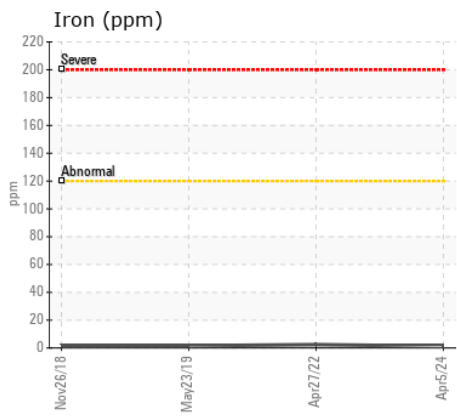
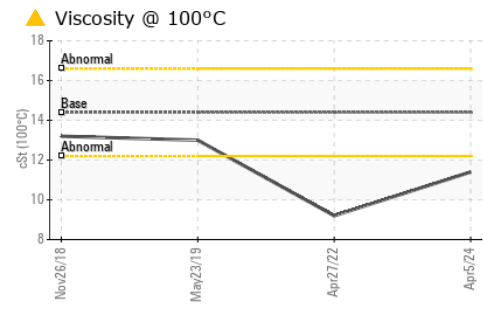
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|------|--------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 9 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 1 | 0 | <1 |
| Fuel | % | ASTM D7593* | >4.0 | 0.0 | ▲ 12.3 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 5.2 | 6.0 | 5.4 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 15.2 | 18.1 | 17.3 |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|---------------|------|--------|-------|------|
| Sodium | ppm | ASTM D5185(m) | >158 | 1 | 2 | 1 |
| Boron | ppm | ASTM D5185(m) | 250 | 8 | 3 | 2 |
| Barium | ppm | ASTM D5185(m) | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 100 | 2 | <1 | <1 |
| Manganese | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 450 | 27 | 15 | 10 |
| Calcium | ppm | ASTM D5185(m) | 3000 | 2062 | 1941 | 2264 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 799 | 830 | 921 |
| Zinc | ppm | ASTM D5185(m) | 1350 | 898 | 897 | 1037 |
| Sulfur | ppm | ASTM D5185(m) | 4250 | 2792 | 2901 | 3414 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 8.7 | 10.3 | 10.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896* | 8.5 | 7.22 | 6.53 | 7.86 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.4 | ▲ 11.4 | ▲ 9.2 | 13.0 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0919644 **Received** : 15 Apr 2024
Lab Number : 02628674 **Tested** : 16 Apr 2024
Unique Number : 5761806 **Diagnosed** : 16 Apr 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: PercentFuel)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.