



VOLVO

OIL ANALYSIS REPORT

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



Area
[402712]

Machine Id
633019

Component
Diesel Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | VCP430015 | VCP394133 | VCP392150 |
| Sample Date | | Client Info | | 02 May 2024 | 07 Feb 2024 | 10 Nov 2023 |
| Machine Age | hrs | Client Info | | 5511 | 5001 | 4507 |
| Oil Age | hrs | Client Info | | 500 | 0 | 500 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >200 | 8 | 9 | 11 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >30 | 3 | 4 | 3 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >20 | 2 | 2 | 2 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

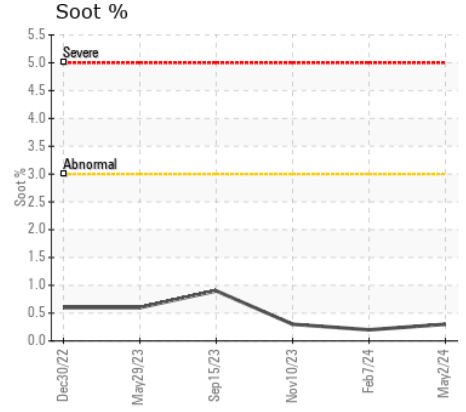
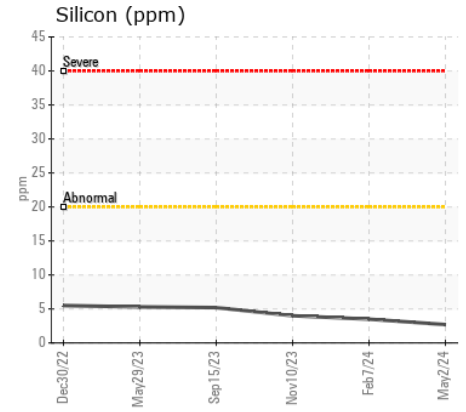
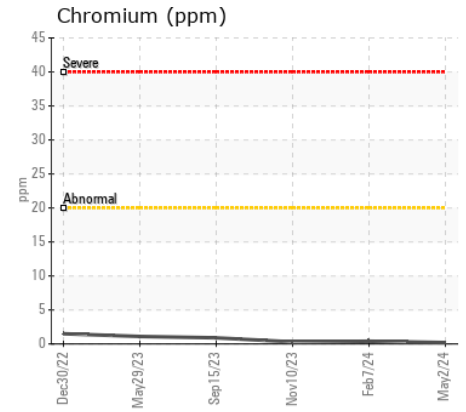
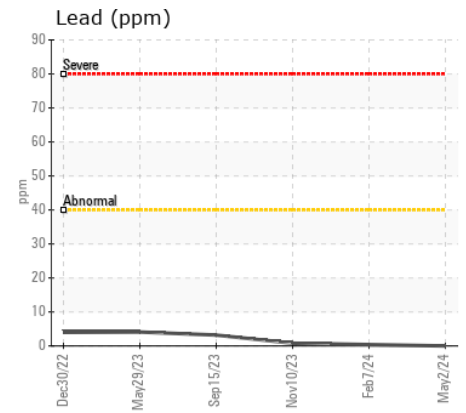
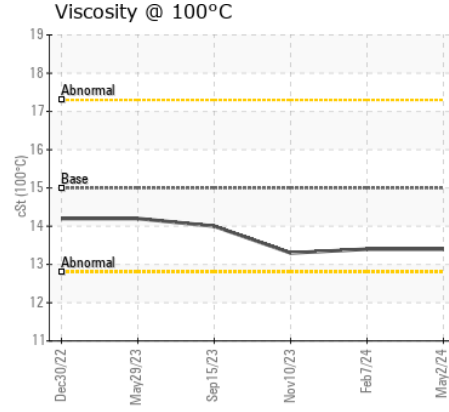
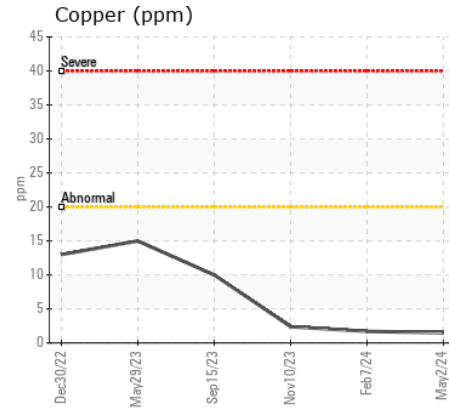
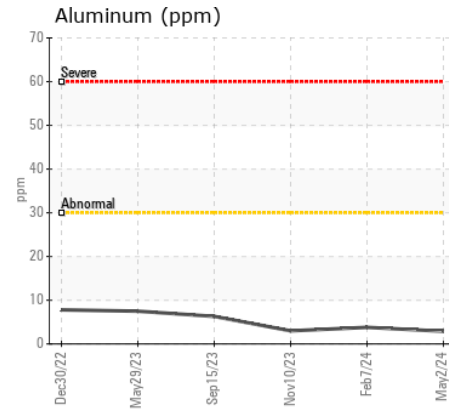
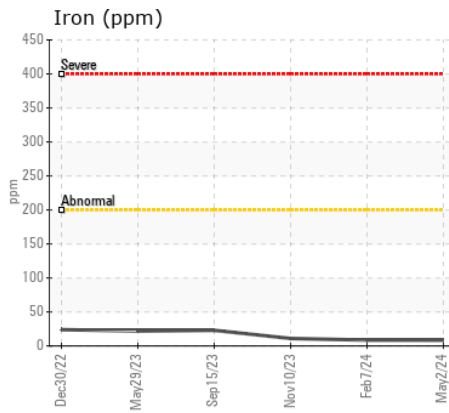
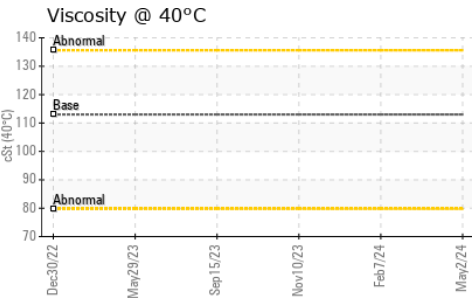
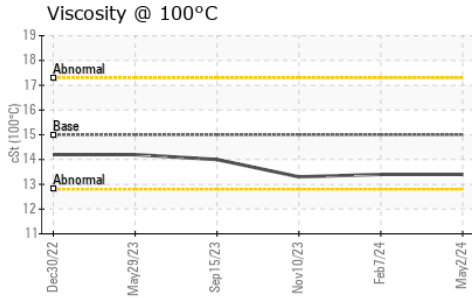
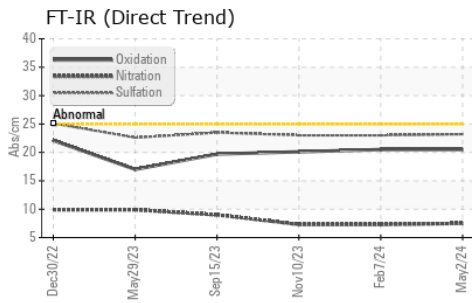
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >20 | 3 | 4 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | <1 | 0 |
| Fuel | | WC Method | >6.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >3 | 0.3 | 0.2 | 0.3 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.5 | 7.3 | 7.3 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 23.2 | 23.0 | 23.0 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|----------------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 2 | 2 | 2 |
| Boron | ppm | ASTM D5185(m) | 2.5 | 39 | 34 | 26 |
| Barium | ppm | ASTM D5185(m) | 0.0 | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 0.7 | 41 | 45 | 42 |
| Manganese | ppm | ASTM D5185(m) | 0.0 | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 256 | 524 | 591 | 573 |
| Calcium | ppm | ASTM D5185(m) | 2057 | 1724 | 1663 | 1609 |
| Phosphorus | ppm | ASTM D5185(m) | 935 | 892 | 966 | 909 |
| Zinc | ppm | ASTM D5185(m) | 1223 | 1115 | 1097 | 1091 |
| Sulfur | ppm | ASTM D5185(m) | 4079 | 2515 | 2588 | 2350 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 20.5 | 20.5 | 20.1 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 113 | 98.8 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.0 | 13.4 | 13.4 | 13.3 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 138 | 134 | --- | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : VCP430015 **Received** : 23 May 2024
Lab Number : 02637291 **Tested** : 23 May 2024
Unique Number : 5786453 **Diagnosed** : 23 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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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.