



VOLVO

OIL ANALYSIS REPORT

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



Area
[462431 WATERFRONT]
Machine Id
VOLVO A40G 342619
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 | | VCP441731 | VCP426678 | --- |
| Sample Date | | Client Info | | 10 Feb 2024 | 12 Aug 2023 | --- |
| Machine Age | hrs | Client Info | | 7777 | 7325 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | Not Changd | Changed | --- |
| Filter Changed | | Client Info | | N/A | Changed | --- |
| Sample Status | | | | NORMAL | ABNORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | 14 | 25 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | --- |
| Nickel | ppm | ASTM D5185m | >2 | 3 | 9 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 8 | 12 | --- |
| Lead | ppm | ASTM D5185m | >40 | 0 | 1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 8 | 12 | --- |
| Tin | ppm | ASTM D5185m | >15 | 0 | 1 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

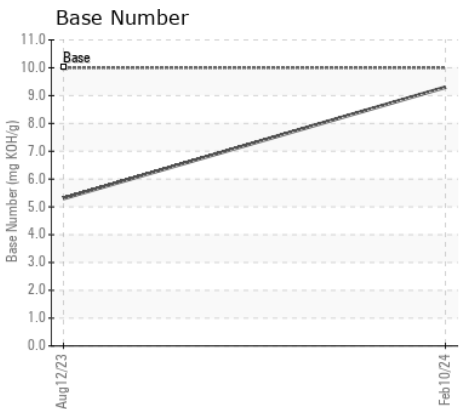
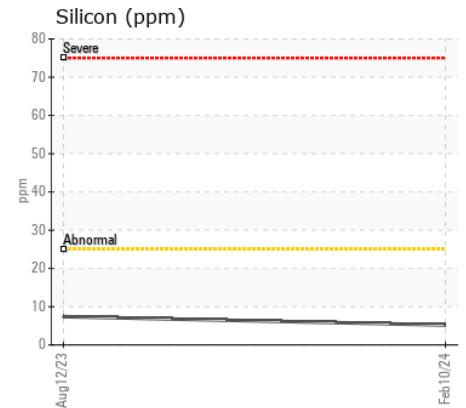
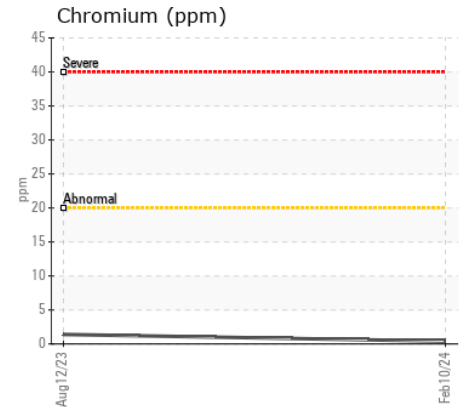
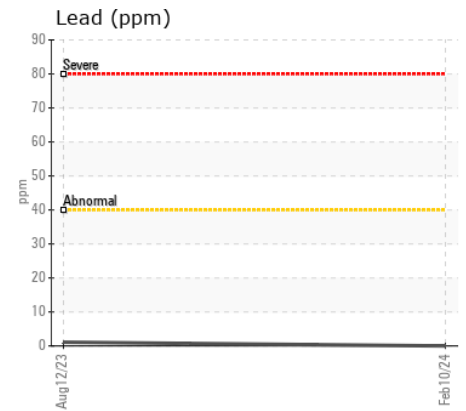
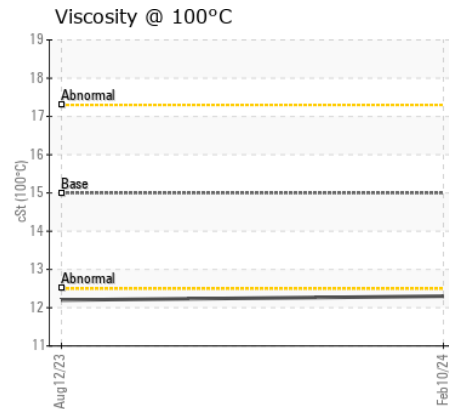
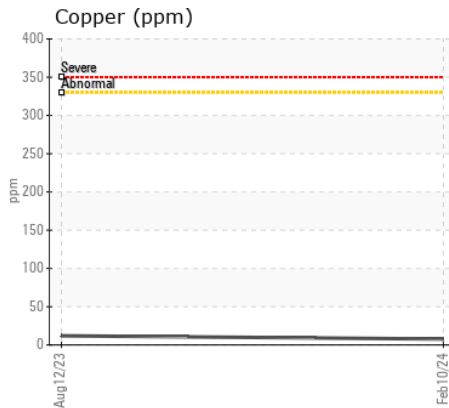
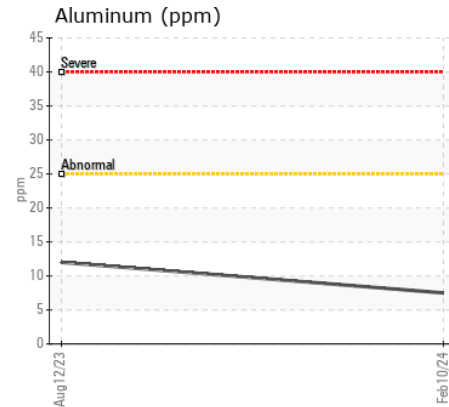
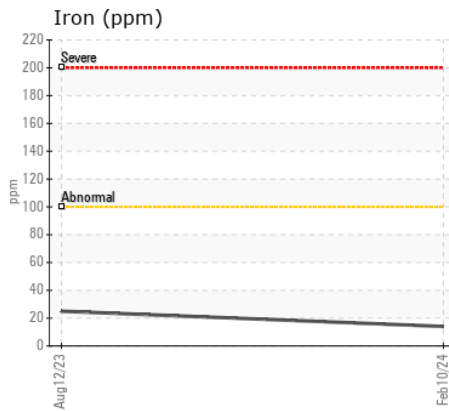
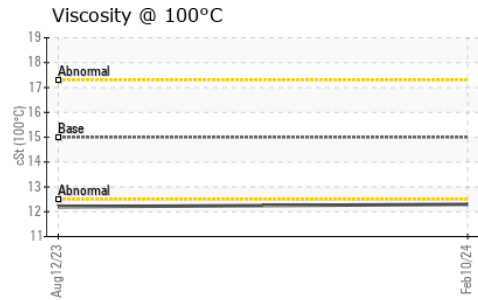
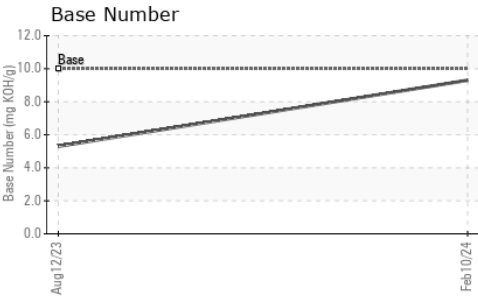
Fuel content negligible. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 5 | 7 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 1 | --- |
| Fuel | % | ASTM D3524 | >6.0 | 0.9 | ▲ 3.1 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.4 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.5 | 11.2 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.0 | 24.5 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | --- |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|------|------|--------|-----|
| Sodium | ppm | ASTM D5185m | | 0 | 5 | --- |
| Boron | ppm | ASTM D5185m | 2.5 | 44 | 8 | --- |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 0.7 | 57 | 41 | --- |
| Manganese | ppm | ASTM D5185m | 0.0 | 0 | 1 | --- |
| Magnesium | ppm | ASTM D5185m | 256 | 503 | 510 | --- |
| Calcium | ppm | ASTM D5185m | 2057 | 1606 | 1633 | --- |
| Phosphorus | ppm | ASTM D5185m | 935 | 869 | 817 | --- |
| Zinc | ppm | ASTM D5185m | 1223 | 1096 | 1108 | --- |
| Sulfur | ppm | ASTM D5185m | 4079 | 2834 | 3277 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.7 | 23.8 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10 | 9.3 | 5.3 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.0 | 12.3 | ▲ 12.2 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441731 **Received** : 13 Feb 2024
Lab Number : 06087024 **Tested** : 15 Feb 2024
Unique Number : 10874469 **Diagnosed** : 15 Feb 2024 - Doug Bogart
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)