



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



Machine Id
VOLVO L90G 617019
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | ML0000962 | --- | --- |
| Sample Date | | Client Info | | 22 Apr 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 16223 | --- | --- |
| Oil Age | hrs | Client Info | | 16223 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|-----|-----|
| Iron | ppm | ASTM D5185m | >100 | 7 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 8 | --- | --- |
| Lead | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >15 | 0 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

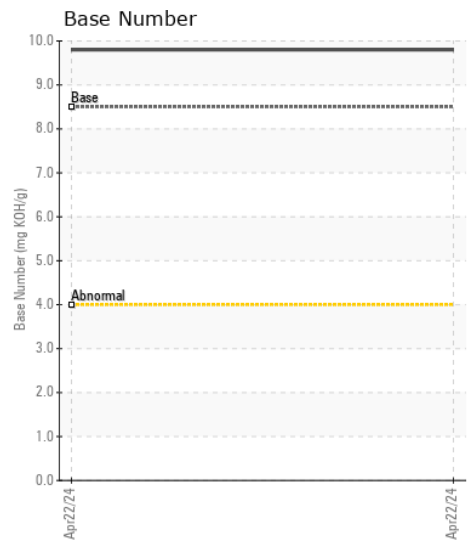
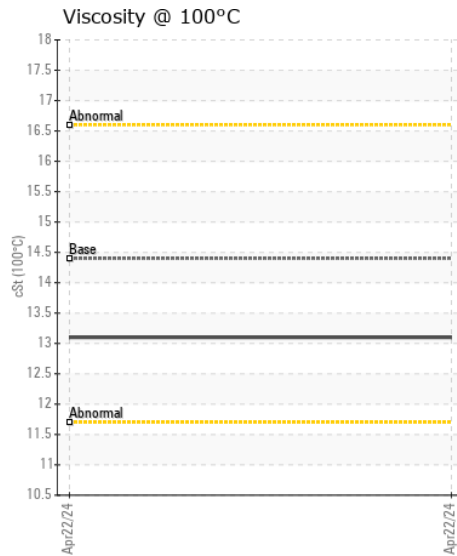
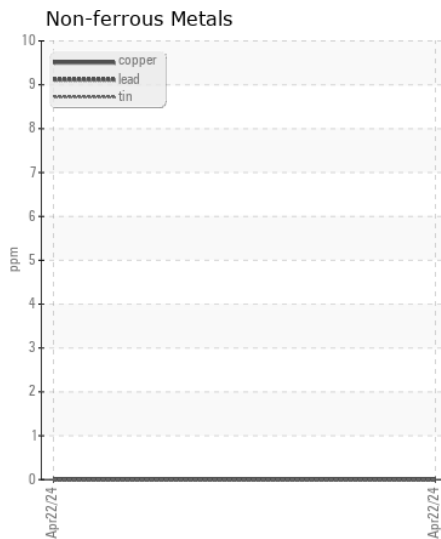
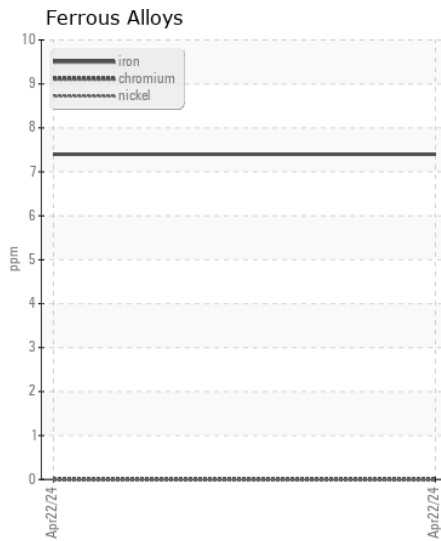
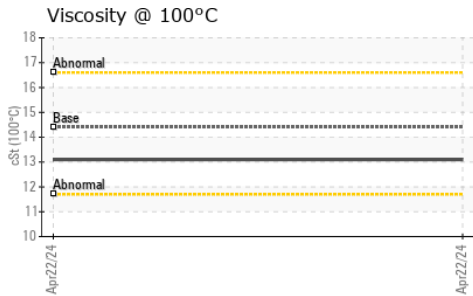
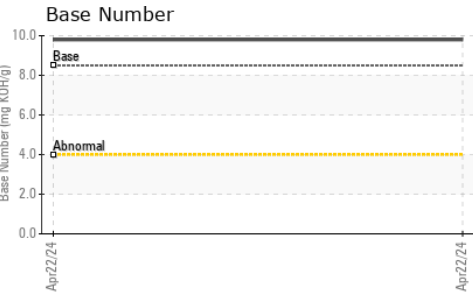
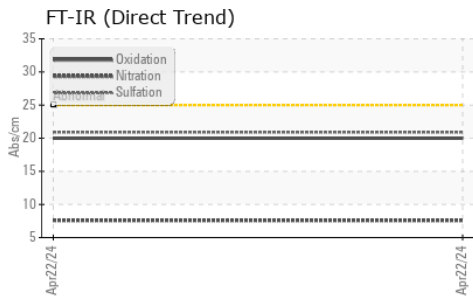
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon | ppm | ASTM D5185m | >20 | 5 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Fuel | | WC Method | >6.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.6 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.9 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|-------------|------|-------------|-----|-----|
| Sodium | ppm | ASTM D5185m | >216 | 1 | --- | --- |
| Boron | ppm | ASTM D5185m | 250 | 39 | --- | --- |
| Barium | ppm | ASTM D5185m | 10 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 46 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 544 | --- | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1956 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 871 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1025 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3300 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 20.0 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 9.8 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.1 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0000962 **Received** : 24 Apr 2024
Lab Number : 06158725 **Tested** : 25 Apr 2024
Unique Number : 10994148 **Diagnosed** : 25 Apr 2024 - Sean Felton
Test Package : CONST (Additional Tests: 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)