WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

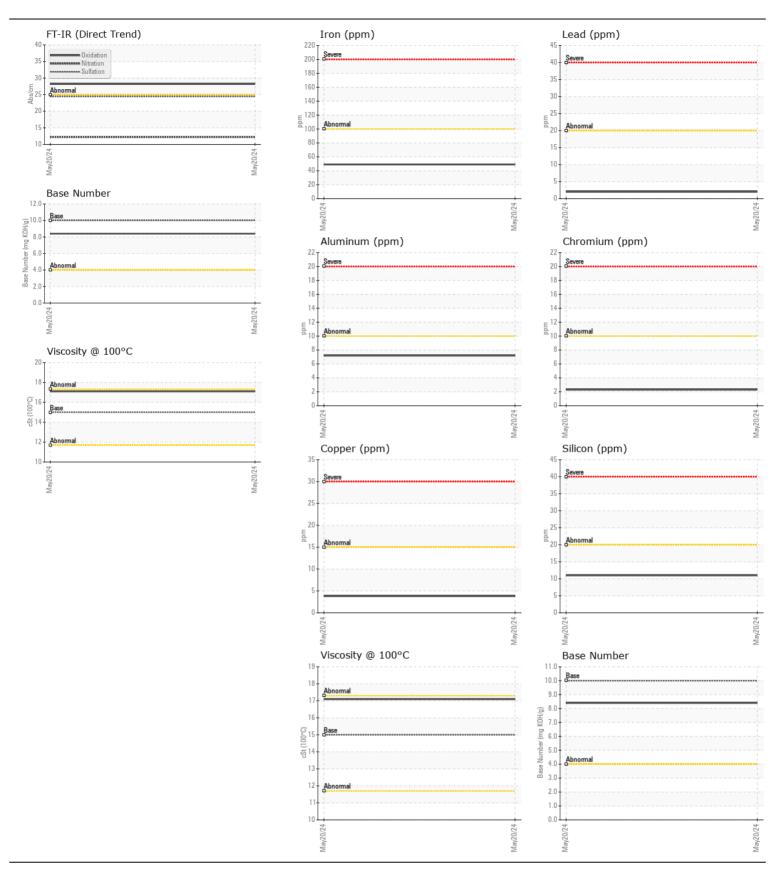
Area

## [715799 GENERAL RV] Wachine Id VOLVO L20F 1706701

Diesel Engine

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

| VOLVO ULTRA DIESEL ENGIN  | COIL 15W4        | U VD          | 5-3 ( G                    | IAL)      | .,          |          |          |
|---|------------------|---------------|----------------------------|-----------|-------------|----------|----------|
| RECOMMENDATION  | Test             | UOM           | Method                     | Limit/Abn | Current     | History1 | History2 |
|   | Sample Number    |               | Client Info                |           | VCP449901   |          |          |
| Resample at the next service interval to monitor.   | Sample Date      |               | Client Info                |           | 20 May 2024 |          |          |
|   | Machine Age      | hrs           | Client Info                |           | 8714        |          |          |
|   | Oil Age          | hrs           | Client Info                |           | 500         |          |          |
|   | Filter Age       | hrs           | Client Info                |           | 0           |          |          |
|   | Oil Changed      |               | Client Info                |           | Changed     |          |          |
|   | Filter Changed   |               | Client Info                |           | Changed     |          |          |
|   | Sample Status    |               |                            |           | NORMAL      |          |          |
| WEAD  |                  |               |                            | 400       |             |          |          |
| WEAR  All component wear rates are normal.  | Iron             | ppm           | ASTM D5185m                |           | 49          |          |          |
|   | Chromium         | ppm           | ASTM D5185m                |           | 2           |          |          |
|   | Nickel           | ppm           | ASTM D5185m                | >10       | <1          |          |          |
|   | Titanium         | ppm           | ASTM D5185m                | 0         | <1          |          |          |
|   | Silver           | ppm           | ASTM D5185m                |           | 1           |          |          |
|   | Aluminum         | ppm           | ASTM D5185m                |           | 7           |          |          |
|   | Lead             | ppm           | ASTM D5185m                |           | 2           |          |          |
|   | Copper<br>Tin    | ppm           | ASTM D5185m<br>ASTM D5185m |           | 4           |          |          |
|   | Vanadium         | ppm           | ASTM D5185m                | >10       | <1<br><1    |          |          |
|   | White Metal      | ppm<br>scalar | *Visual                    | NONE      | NONE        |          |          |
|   | Yellow Metal     |               | *Visual                    | NONE      | NONE        |          |          |
|   |                  | scalar        | VISUAI                     | NONE      | INOINE      |          |          |
| CONTAMINATION   | Silicon          | ppm           | ASTM D5185m                | >20       | 11          |          |          |
|   | Potassium        | ppm           | ASTM D5185m                | >20       | 3           |          |          |
| There is no indication of any contamination in the oil.   | Fuel             |               | WC Method                  | >6.0      | <1.0        |          |          |
|   | Water            |               | WC Method                  | >0.1      | NEG         |          |          |
|   | Glycol           |               | WC Method                  |           | NEG         |          |          |
|   | Soot %           | %             | *ASTM D7844                | >3        | 0.2         |          |          |
|   | Nitration        | Abs/cm        | *ASTM D7624                | >20       | 12.2        |          |          |
|   | Sulfation        | Abs/.1mm      | *ASTM D7415                | >30       | 24.4        |          |          |
|   | 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   | Codium           | nnm           | ACTM DE10Em                |           | 3           |          |          |
| FLUID CONDITION   | Sodium<br>Boron  | ppm           | ASTM D5185m                | 2.5       | 48          |          |          |
| 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. | Barium           | ppm           | ASTM D5185m<br>ASTM D5185m |           | 40<br><1    |          |          |
|   | Molybdenum       | ppm           | ASTM D5185m                |           | 42          |          |          |
|   | Manganese        | ppm           |                            | 0.0       | 1           |          |          |
|   | Magnesium        | ppm           | ASTM D5185m                |           | 500         |          |          |
|   | Calcium          | ppm           | ASTM D5185m                | 2057      | 2179        |          |          |
|   | Phosphorus       | ppm           | ASTM D5185m                |           | 1020        |          |          |
|   | Zinc             | ppm           | ASTM D5185m                |           | 1309        |          |          |
|   | Sulfur           | ppm           | ASTM D5185m                |           | 3359        |          |          |
|   | Oxidation        | Abs/.1mm      | *ASTM D7414                |           | 28.2        |          |          |
|   | Base Number (BN) |               |                            |           | 8.4         |          |          |
|   | Visc @ 100°C     | cSt           | ASTM D445                  |           | 17.1        |          |          |
|   |                  | 001           |                            |           |             |          |          |





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP449901 Lab Number : 06191828

Unique Number : 11048580

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received : 28 May 2024 **Tested** : 29 May 2024

Diagnosed : 30 May 2024 - Sean Felton Test Package : MOB 1 ( Additional Tests: TBN )

**ALTA EQUIPMENT COMPANY - METRO WEST** 

56195 PONTIAC TRAIL NEW HUDSON, MI US 48165

Contact: PAUL ELZERMAN

paul.elzerman@altaequipment.com T: (248)356-5200

\* - 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)

F: (248)356-2029