



# CONSTRUCTION EQUIPMENT

728544 TAKEUCHI TL10 410004839 - DIESEL ENGINE



**Sample No:** VCP438412  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 728544



## SAMPLE INFORMATION

|               |             |             |     |     |
|---------------|-------------|-------------|-----|-----|
| Sample Number | VCP438412   | VCP399252   | --- | --- |
| Sample Date   | 04 Jun 2024 | 14 Dec 2022 | --- | --- |
| Machine Hours | 1759        | 614         | --- | --- |
| Oil Hours     | 0           | 0           | --- | --- |
| Oil Changed   | Changed     | Changed     | --- | --- |
| Sample Status | SEVERE      | NORMAL      | --- | --- |

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## OIL CONDITION

|                  |          |         |        |     |     |
|------------------|----------|---------|--------|-----|-----|
| Visc @ 100°C     | cSt      | ▲ 12.13 | ■ 14.2 | --- | --- |
| Base Number (BN) | mg KOH/g | ■ 4.11  | ■ 7.7  | --- | --- |
| Oxidation (PA)   | %        | 152     | 99     | --- | --- |

## Diagnosis

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



## CONTAMINATION

|                |     |        |       |     |     |
|----------------|-----|--------|-------|-----|-----|
| Water          | %   | NEG    | NEG   | --- | --- |
| Soot %         | %   | ■ 0.8  | ■ 0.8 | --- | --- |
| Nitration (PA) | %   | 119    | 102   | --- | --- |
| Sulfation (PA) | %   | 91     | 71    | --- | --- |
| Glycol         | %   | NEG    | NEG   | --- | --- |
| Fuel           | %   | ▲ 11.7 | <1.0  | --- | --- |
| Silicon        | ppm | ■ 11   | ■ 3   | --- | --- |
| Sodium         | ppm | ■ 3    | ■ 0   | --- | --- |
| Potassium      | ppm | ■ 0    | ■ 6   | --- | --- |



## WEAR METALS

|            |     |      |      |     |     |
|------------|-----|------|------|-----|-----|
| Iron       | ppm | ■ 61 | ■ 7  | --- | --- |
| Copper     | ppm | ■ 8  | ■ 10 | --- | --- |
| Lead       | ppm | ■ 0  | ■ 0  | --- | --- |
| Tin        | ppm | ■ <1 | ■ <1 | --- | --- |
| Aluminum   | ppm | ■ 3  | ■ 2  | --- | --- |
| Chromium   | ppm | ■ 1  | ■ <1 | --- | --- |
| Molybdenum | ppm | ■ 64 | ■ 33 | --- | --- |
| Nickel     | ppm | ■ 0  | ■ 0  | --- | --- |
| Titanium   | ppm | 0    | 0    | --- | --- |
| Silver     | ppm | ■ 0  | ■ <1 | --- | --- |
| Manganese  | ppm | ■ 1  | ■ <1 | --- | --- |
| Vanadium   | ppm | 0    | <1   | --- | --- |



## ADDITIVES

|            |     |        |        |     |     |
|------------|-----|--------|--------|-----|-----|
| Calcium    | ppm | ■ 1821 | ■ 2127 | --- | --- |
| Magnesium  | ppm | ■ 505  | ■ 53   | --- | --- |
| Zinc       | ppm | ■ 1259 | ■ 1054 | --- | --- |
| Phosphorus | ppm | ■ 1018 | ■ 822  | --- | --- |
| Barium     | ppm | ■ 0    | ■ 0    | --- | --- |
| Boron      | ppm | ■ 61   | ■ 122  | --- | --- |

**Depot:** VOLVO0096  
**Unique No:** 11070543  
**Signed:** Sean Felton  
**Report Date:** 21 Jun 2024

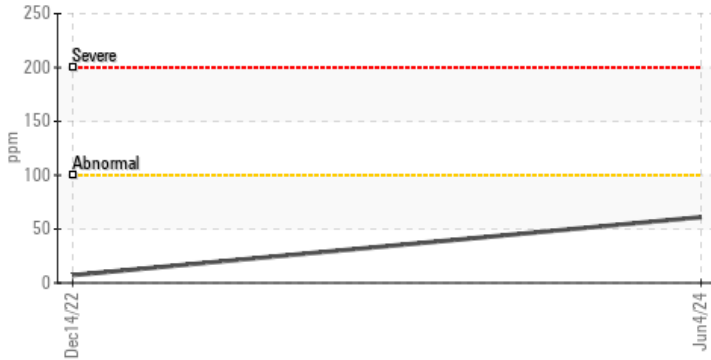


# CONSTRUCTION EQUIPMENT



## GRAPHS

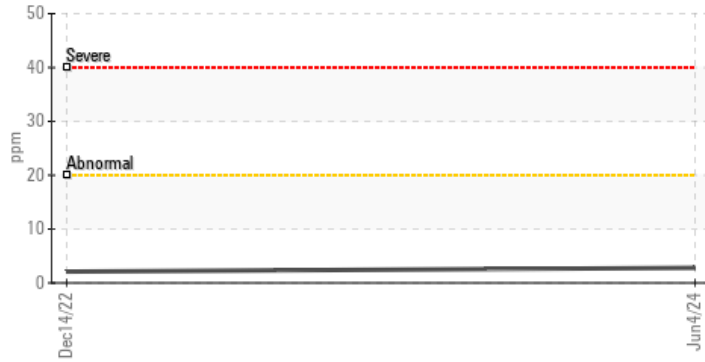
### Iron (ppm)



### Lead (ppm)



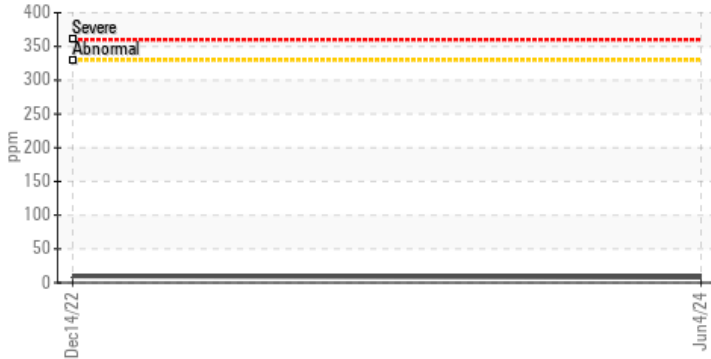
### Aluminum (ppm)



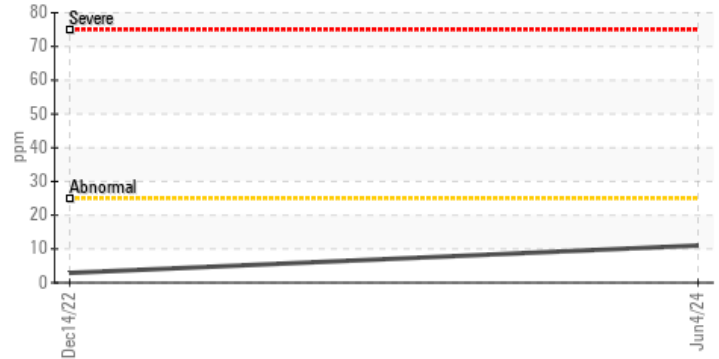
### Chromium (ppm)



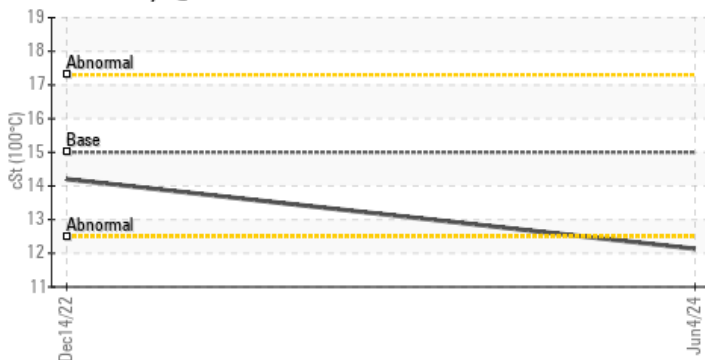
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

