



# CONSTRUCTION EQUIPMENT

UNITED SENNEBOGEN 835.0.2725 - DIESEL ENGINE



**Sample No:** VCP424491  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** UNITED



## SAMPLE INFORMATION

|               |                    |             |             |     |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | <b>VCP424491</b>   | VCP370035   | VCP401641   | --- |
| Sample Date   | <b>03 Aug 2023</b> | 25 Apr 2023 | 25 Apr 2023 | --- |
| Machine Hours | <b>7425</b>        | 7216        | 7216        | --- |
| Oil Hours     | <b>500</b>         | 0           | 500         | --- |
| Oil Changed   | <b>Changed</b>     | N/A         | Changed     | --- |
| Sample Status | <b>SEVERE</b>      | MARGINAL    | SEVERE      | --- |

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## OIL CONDITION

|                  |          |               |        |       |     |
|------------------|----------|---------------|--------|-------|-----|
| Visc @ 100°C     | cSt      | <b>▲ 10.5</b> | ■ 12.3 | ● 9.2 | --- |
| Base Number (BN) | mg KOH/g | ■ <b>7.3</b>  | ■ 8.4  | ■ 8.0 | --- |
| Oxidation (PA)   | %        | <b>111</b>    | 109    | 94    | --- |

## Diagnosis

We advise that you check the fuel injection system. Oil and filter 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

|                |     |               |       |        |     |
|----------------|-----|---------------|-------|--------|-----|
| Soot %         | %   | ■ <b>0.2</b>  | ■ 0.2 | ■ 0.2  | --- |
| Nitration (PA) | %   | <b>94</b>     | 93    | 84     | --- |
| Sulfation (PA) | %   | <b>67</b>     | 69    | 62     | --- |
| Glycol         | %   | <b>NEG</b>    | NEG   | NEG    | --- |
| Fuel           | %   | ● <b>12.0</b> | ▲ 3.0 | ● 16.7 | --- |
| Silicon        | ppm | ■ <b>5</b>    | ■ 5   | ■ 5    | --- |
| Sodium         | ppm | ■ <b>4</b>    | ■ 3   | ■ 2    | --- |
| Potassium      | ppm | ■ <b>3</b>    | ■ 0   | ■ 0    | --- |



## WEAR METALS

|            |     |                |      |      |     |
|------------|-----|----------------|------|------|-----|
| Iron       | ppm | ■ <b>11</b>    | ■ 9  | ■ 11 | --- |
| Copper     | ppm | ■ <b>&lt;1</b> | ■ <1 | ■ <1 | --- |
| Lead       | ppm | ■ <b>&lt;1</b> | ■ 0  | ■ 0  | --- |
| Tin        | ppm | ■ <b>&lt;1</b> | ■ 0  | ■ 0  | --- |
| Aluminum   | ppm | ■ <b>2</b>     | ■ 2  | ■ 2  | --- |
| Chromium   | ppm | ■ <b>&lt;1</b> | ■ <1 | ■ <1 | --- |
| Molybdenum | ppm | ■ <b>39</b>    | ■ 39 | ■ 37 | --- |
| Nickel     | ppm | ■ <b>0</b>     | ■ 0  | ■ 0  | --- |
| Titanium   | ppm | ■ <b>0</b>     | 0    | ■ 0  | --- |
| Silver     | ppm | ■ <b>0</b>     | ■ 0  | ■ 0  | --- |
| Manganese  | ppm | ■ <b>&lt;1</b> | <1   | ■ <1 | --- |
| Vanadium   | ppm | ■ <b>&lt;1</b> | <1   | <1   | --- |



## ADDITIVES

|            |     |               |        |        |     |
|------------|-----|---------------|--------|--------|-----|
| Calcium    | ppm | ■ <b>1680</b> | ■ 1863 | ■ 1501 | --- |
| Magnesium  | ppm | ■ <b>510</b>  | ■ 488  | ■ 435  | --- |
| Zinc       | ppm | ■ <b>1121</b> | ■ 1137 | ■ 957  | --- |
| Phosphorus | ppm | ■ <b>874</b>  | ■ 933  | ■ 778  | --- |
| Barium     | ppm | ■ <b>0</b>    | ■ 0    | ■ 0    | --- |
| Boron      | ppm | ■ <b>41</b>   | ■ 42   | ■ 44   | --- |

**Depot:** GRESOUNJ  
**Unique No:** 10675089  
**Signed:** Don Baldrige  
**Report Date:** 06 Oct 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

