



# CONSTRUCTION EQUIPMENT

## 608209 IHFT SENNEBOGEN 835 2496 - DIESEL ENGINE



**Sample No:** VCP442760  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 608209 IHFT



### SAMPLE INFORMATION

|               |                    |             |             |     |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | <b>VCP442760</b>   | VCP382859   | VCP363903   | --- |
| Sample Date   | <b>21 Nov 2023</b> | 01 Feb 2023 | 15 Aug 2022 | --- |
| Machine Hours | <b>10716</b>       | 8776        | 7646        | --- |
| Oil Hours     | <b>0</b>           | 500         | 1000        | --- |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | --- |
| Sample Status | <b>ABNORMAL</b>    | ABNORMAL    | NORMAL      | --- |

**ALTA EQUIPMENT COMPANY - METRO WEST**  
 56195 PONTIAC TRAIL  
 NEW HUDSON, MI  
 US 48165  
 Contact: PAUL CONZ  
 paul.conz@altg.com  
 T: (313)348-8861  
 F: (248)356-2029



### OIL CONDITION

|                  |          |             |      |      |     |
|------------------|----------|-------------|------|------|-----|
| Visc @ 100°C     | cSt      | <b>15.0</b> | 11.7 | 13.1 | --- |
| Base Number (BN) | mg KOH/g | <b>6.9</b>  | 6.9  | 8.8  | --- |
| Oxidation (PA)   | %        | <b>114</b>  | 71   | 82   | --- |

### Diagnosis

The oil change at the time of sampling has been noted. No other corrective action is recommended at this time. All component wear rates are normal. Light concentration of carbon/soot present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



### CONTAMINATION

|                |     |            |     |      |     |
|----------------|-----|------------|-----|------|-----|
| Water          | %   | <b>NEG</b> | NEG | NEG  | --- |
| Soot %         | %   | <b>3.6</b> | 0.3 | 0.3  | --- |
| Nitration (PA) | %   | <b>155</b> | 85  | 96   | --- |
| Sulfation (PA) | %   | <b>94</b>  | 54  | 66   | --- |
| Glycol         | %   | <b>NEG</b> | NEG | NEG  | --- |
| Fuel           | %   | <b>1.4</b> | 5.1 | <1.0 | --- |
| Silicon        | ppm | <b>8</b>   | 5   | 4    | --- |
| Sodium         | ppm | <b>2</b>   | 0   | 0    | --- |
| Potassium      | ppm | <b>4</b>   | 3   | 3    | --- |



### WEAR METALS

|            |     |              |    |    |     |
|------------|-----|--------------|----|----|-----|
| Iron       | ppm | <b>79</b>    | 12 | 10 | --- |
| Copper     | ppm | <b>3</b>     | 1  | 2  | --- |
| Lead       | ppm | <b>0</b>     | 0  | <1 | --- |
| Tin        | ppm | <b>&lt;1</b> | <1 | <1 | --- |
| Aluminum   | ppm | <b>4</b>     | 2  | 2  | --- |
| Chromium   | ppm | <b>3</b>     | <1 | <1 | --- |
| Molybdenum | ppm | <b>64</b>    | 62 | 64 | --- |
| Nickel     | ppm | <b>1</b>     | 1  | 0  | --- |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | --- |
| Silver     | ppm | <b>0</b>     | 0  | <1 | --- |
| Manganese  | ppm | <b>1</b>     | <1 | <1 | --- |
| Vanadium   | ppm | <b>0</b>     | <1 | 0  | --- |



### ADDITIVES

|            |     |             |      |      |     |
|------------|-----|-------------|------|------|-----|
| Calcium    | ppm | <b>1135</b> | 1073 | 1148 | --- |
| Magnesium  | ppm | <b>1003</b> | 950  | 939  | --- |
| Zinc       | ppm | <b>1345</b> | 1261 | 1346 | --- |
| Phosphorus | ppm | <b>1036</b> | 1045 | 1089 | --- |
| Barium     | ppm | <b>0</b>    | 0    | 0    | --- |
| Boron      | ppm | <b>3</b>    | 0    | 3    | --- |

**Depot:** VOLVO2990  
**Unique No:** 10764781  
**Signed:** Angela Borella  
**Report Date:** 01 Dec 2023



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## GRAPHS

