



# CONSTRUCTION EQUIPMENT

660419 SENNEBOGEN 850E 850.0.3178 - DIESEL ENGINE



**Sample No:** VCP445850  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 660419



## SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP445850   | --- | --- | --- |
| Sample Date   | 08 Feb 2024 | --- | --- | --- |
| Machine Hours | 958         | --- | --- | --- |
| Oil Hours     | 958         | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | NORMAL      | --- | --- | --- |

### FERROUS PROCESSING AND TRADING

3400 E LAFAYETTE  
 DETROIT, MI  
 US 48207

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## OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 12.5 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 6.3  | --- | --- | --- |
| Oxidation (PA)   | %        | 84     | --- | --- | --- |

### Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a components first oil change. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



## CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Water          | %   | NEG   | --- | --- | --- |
| Soot %         | %   | █ 0.1 | --- | --- | --- |
| Nitration (PA) | %   | 100   | --- | --- | --- |
| Sulfation (PA) | %   | 64    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | <1.0  | --- | --- | --- |
| Silicon        | ppm | █ 3   | --- | --- | --- |
| Sodium         | ppm | █ 4   | --- | --- | --- |
| Potassium      | ppm | █ 40  | --- | --- | --- |



## WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | █ 19 | --- | --- | --- |
| Copper     | ppm | █ 4  | --- | --- | --- |
| Lead       | ppm | █ <1 | --- | --- | --- |
| Tin        | ppm | █ <1 | --- | --- | --- |
| Aluminum   | ppm | █ 13 | --- | --- | --- |
| Chromium   | ppm | █ <1 | --- | --- | --- |
| Molybdenum | ppm | █ 89 | --- | --- | --- |
| Nickel     | ppm | █ 0  | --- | --- | --- |
| Titanium   | ppm | 0    | --- | --- | --- |
| Silver     | ppm | █ 0  | --- | --- | --- |
| Manganese  | ppm | █ 2  | --- | --- | --- |
| Vanadium   | ppm | 0    | --- | --- | --- |



## ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 2199 | --- | --- | --- |
| Magnesium  | ppm | 83     | --- | --- | --- |
| Zinc       | ppm | █ 1129 | --- | --- | --- |
| Phosphorus | ppm | █ 1007 | --- | --- | --- |
| Barium     | ppm | █ 5    | --- | --- | --- |
| Boron      | ppm | █ 47   | --- | --- | --- |

**Depot:** FERDET  
**Unique No:** 10896457  
**Signed:** Wes Davis  
**Report Date:** 26 Feb 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

### Iron (ppm)



### Lead (ppm)



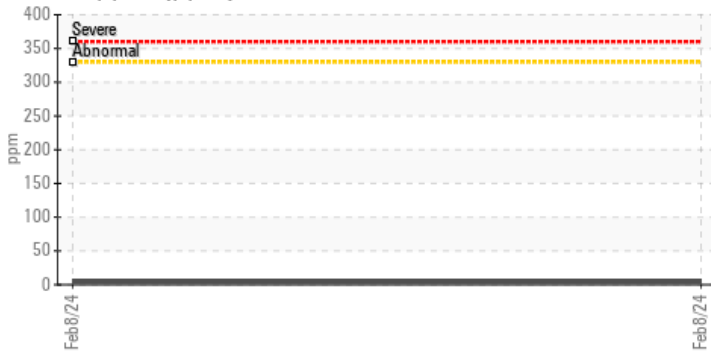
### Aluminum (ppm)



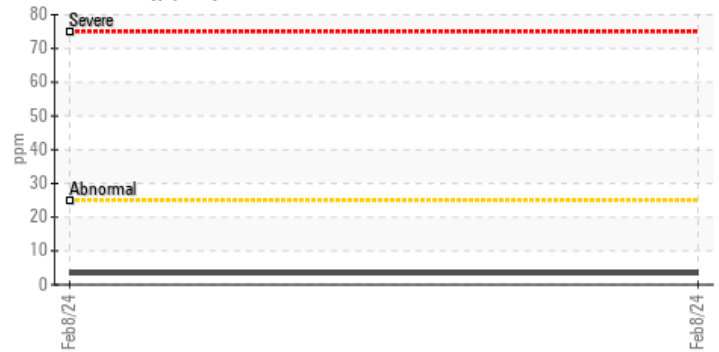
### Chromium (ppm)



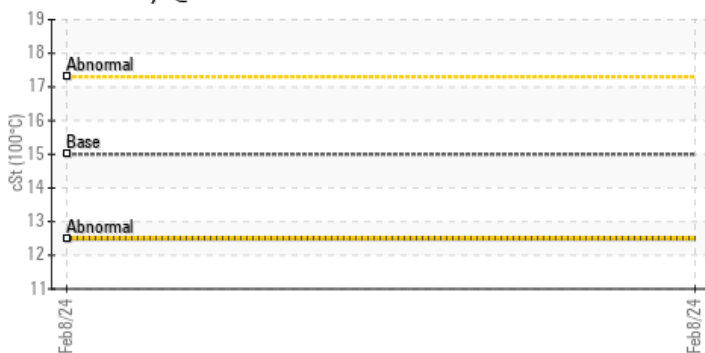
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

