



# VOLVO

## OIL ANALYSIS REPORT

|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>ABNORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b>   |

Area  
**[AMG]**  
 Machine Id  
**SENNEBOGEN 835 835.0.2547**  
 Component  
**Hydraulic System**  
 Fluid  
**SENNEBOGEN HO46 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>VCP434047</b>   | VCP422149   | VCP411557   |
| Sample Date    |     | Client Info |           | <b>03 Jan 2024</b> | 15 Sep 2023 | 07 Jul 2023 |
| Machine Age    | hrs | Client Info |           | <b>11478</b>       | 10840       | 10362       |
| Oil Age        | hrs | Client Info |           | <b>2000</b>        | 1500        | 1500        |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | N/A         |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | NORMAL      | SEVERE      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >20  | <b>8</b>     | 10   | 10   |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>4</b>     | 5    | 4    |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | 2    | 3    |
| Lead         | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | <1   |
| Copper       | ppm    | ASTM D5185m | >75  | <b>3</b>     | 4    | 4    |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>LIGHT</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

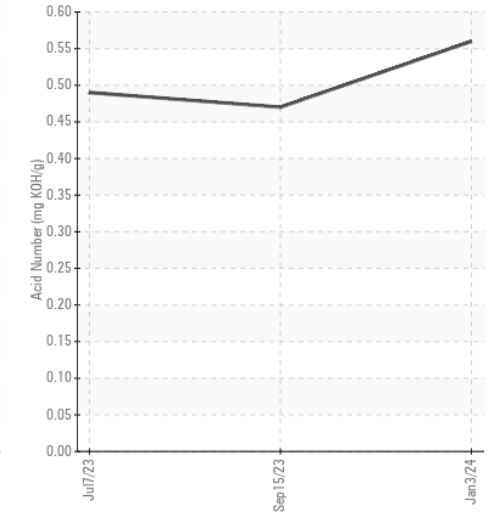
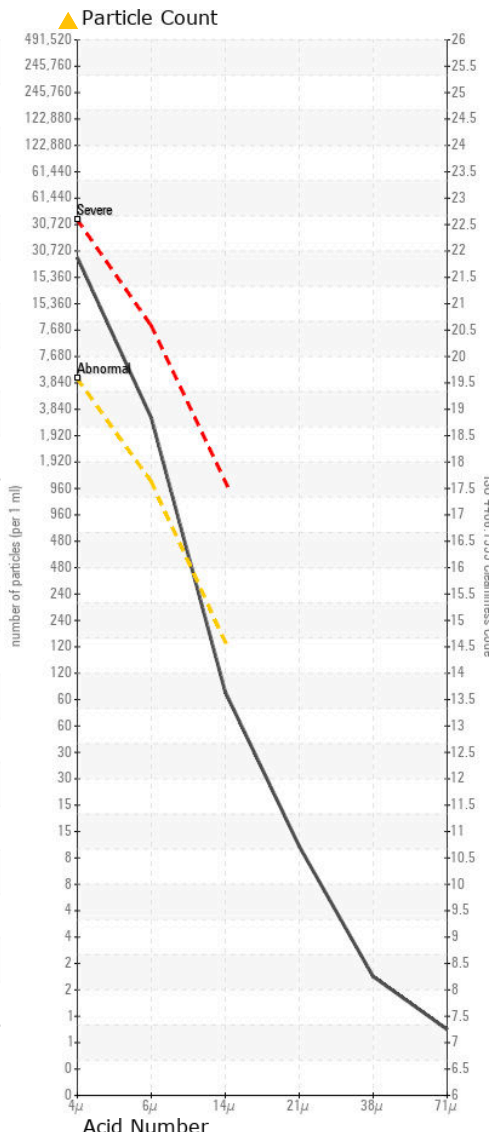
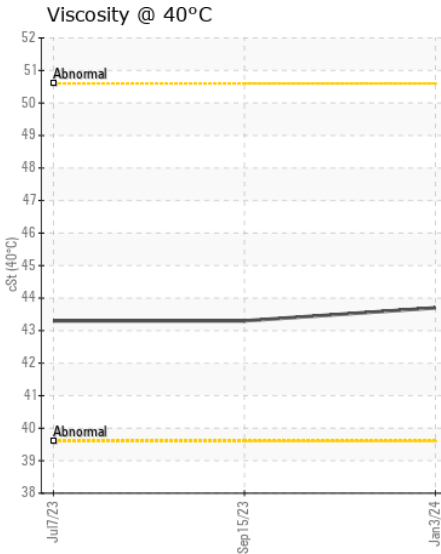
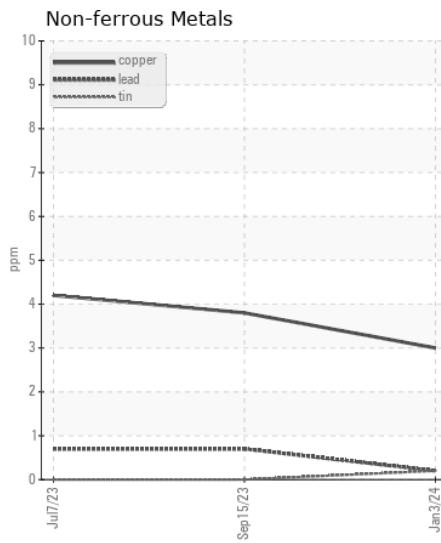
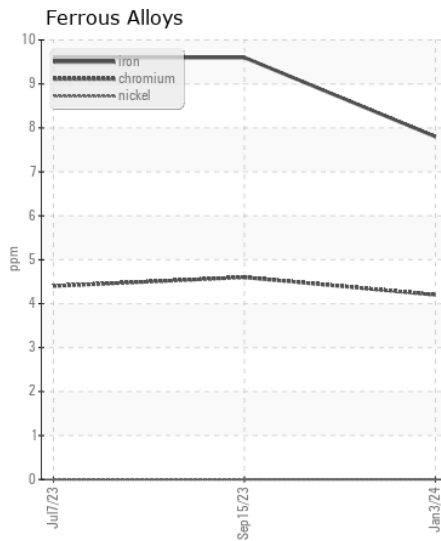
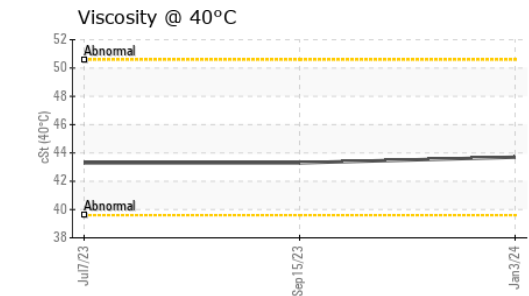
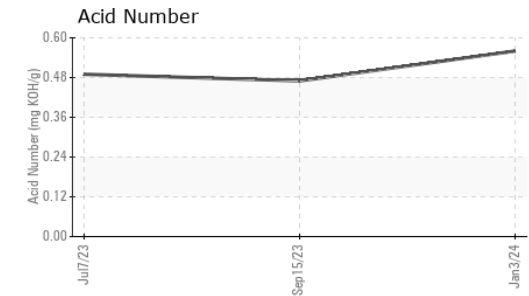
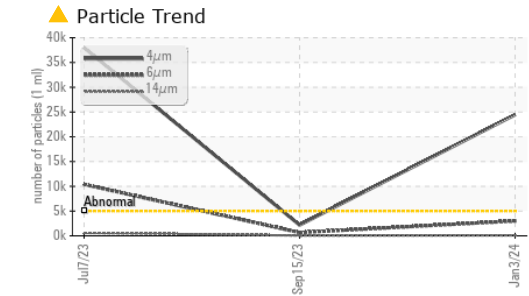
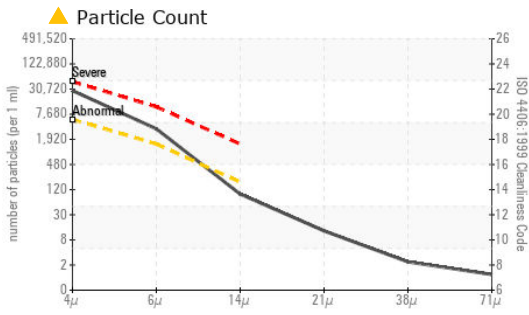
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |                   |          |            |
|------------------|--------|--------------|-----------|-------------------|----------|------------|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>2</b>          | 2        | 3          |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>0</b>          | <1       | <1         |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>        | NEG      | NEG        |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>▲ 24456</b>    | 2175     | ▲ 37984    |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>▲ 2996</b>     | 654      | ● 10392    |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>83</b>         | 50       | ▲ 587      |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>11</b>         | 11       | ▲ 146      |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>2</b>          | 0        | 5          |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>1</b>          | 0        | 0          |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>▲ 22/19/14</b> | 18/17/13 | ● 22/21/16 |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>       | NONE     | NONE       |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>       | NONE     | NONE       |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>       | NONE     | NONE       |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>      | NORML    | NORML      |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>      | NORML    | NORML      |
| Emulsified Water | scalar | *Visual      | >0.1      | <b>NEG</b>        | NEG      | NEG        |

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |  |              |      |      |
|------------------|----------|-------------|--|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |  | <b>2</b>     | 2    | 3    |
| Boron            | ppm      | ASTM D5185m |  | <b>1</b>     | 0    | 0    |
| Barium           | ppm      | ASTM D5185m |  | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |  | <b>0</b>     | 1    | 1    |
| Manganese        | ppm      | ASTM D5185m |  | <b>&lt;1</b> | 0    | 0    |
| Magnesium        | ppm      | ASTM D5185m |  | <b>16</b>    | 14   | 12   |
| Calcium          | ppm      | ASTM D5185m |  | <b>190</b>   | 217  | 240  |
| Phosphorus       | ppm      | ASTM D5185m |  | <b>373</b>   | 362  | 367  |
| Zinc             | ppm      | ASTM D5185m |  | <b>453</b>   | 479  | 475  |
| Sulfur           | ppm      | ASTM D5185m |  | <b>1999</b>  | 2356 | 2080 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |  | <b>0.56</b>  | 0.47 | 0.49 |
| Visc @ 40°C      | cSt      | ASTM D445   |  | <b>43.7</b>  | 43.3 | 43.3 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP434047 **Received** : 18 Jan 2024  
**Lab Number** : 06064231 **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10835613 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

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

\* - 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)