



# CONSTRUCTION EQUIPMENT

## 701481 VOLVO A45G 352411 - HYDRAULIC SYSTEM



**Sample No:** VCP446360  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** 701481



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP446360</b>   | VCP431263   | VCP427062   | VCP377165   |
| Sample Date   | <b>10 Apr 2024</b> | 22 Nov 2023 | 19 Jun 2023 | 30 Apr 2022 |
| Machine Hours | <b>6878</b>        | 6275        | 5591        | 3478        |
| Oil Hours     | <b>0</b>           | 0           | 0           | 0           |
| Oil Changed   | <b>Not Chngd</b>   | Not Chngd   | Changed     | Not Chngd   |
| Sample Status | <b>ABNORMAL</b>    | ABNORMAL    | NORMAL      | NORMAL      |

**ORANGE COUNTY SOLID WASTE**  
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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 40°C      | cSt      | <b>43.7</b> | 42.8 | 41.4 | 41.6 |
| Acid Number (AN) | mg KOH/g | <b>0.46</b> | 0.38 | 0.39 | 0.41 |

### CONTAMINATION

|                   |     |                 |     |          |          |
|-------------------|-----|-----------------|-----|----------|----------|
| Water             | %   | <b>NEG</b>      | NEG | NEG      | NEG      |
| Particles >4µm    |     | <b>11234</b>    | --- | 730      | 522      |
| Particles >6µm    |     | <b>3856</b>     | --- | 185      | 128      |
| Particles >14µm   |     | <b>463</b>      | --- | 15       | 14       |
| ISO 4406:1999 (c) |     | <b>21/19/16</b> | --- | 17/15/11 | 16/14/11 |
| Silicon           | ppm | <b>3</b>        | 4   | 6        | 4        |
| Sodium            | ppm | <b>&lt;1</b>    | 0   | 4        | 2        |
| Potassium         | ppm | <b>0</b>        | 2   | 2        | 0        |

### Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>3</b>     | 7  | 9  | 4  |
| Copper     | ppm | <b>3</b>     | 3  | 3  | 2  |
| Lead       | ppm | <b>&lt;1</b> | 3  | 4  | 3  |
| Tin        | ppm | <b>0</b>     | <1 | <1 | <1 |
| Aluminum   | ppm | <b>&lt;1</b> | 2  | 0  | <1 |
| Chromium   | ppm | <b>0</b>     | <1 | <1 | <1 |
| Molybdenum | ppm | <b>2</b>     | 2  | 1  | <1 |
| Nickel     | ppm | <b>0</b>     | <1 | 0  | 0  |
| Titanium   | ppm | <b>&lt;1</b> | <1 | <1 | 0  |
| Silver     | ppm | <b>0</b>     | 0  | 0  | <1 |
| Manganese  | ppm | <b>0</b>     | <1 | <1 | 0  |
| Vanadium   | ppm | <b>&lt;1</b> | 0  | 0  | 0  |

### ADDITIVES

|            |     |            |     |     |     |
|------------|-----|------------|-----|-----|-----|
| Calcium    | ppm | <b>263</b> | 90  | 94  | 88  |
| Magnesium  | ppm | <b>17</b>  | 7   | 11  | 4   |
| Zinc       | ppm | <b>495</b> | 428 | 402 | 404 |
| Phosphorus | ppm | <b>386</b> | 294 | 317 | 328 |
| Barium     | ppm | <b>0</b>   | 0   | <1  | 0   |
| Boron      | ppm | <b>10</b>  | <1  | 0   | 3   |

**Depot:** ORAORL  
**Unique No:** 10991242  
**Signed:** Wes Davis  
**Report Date:** 23 Apr 2024

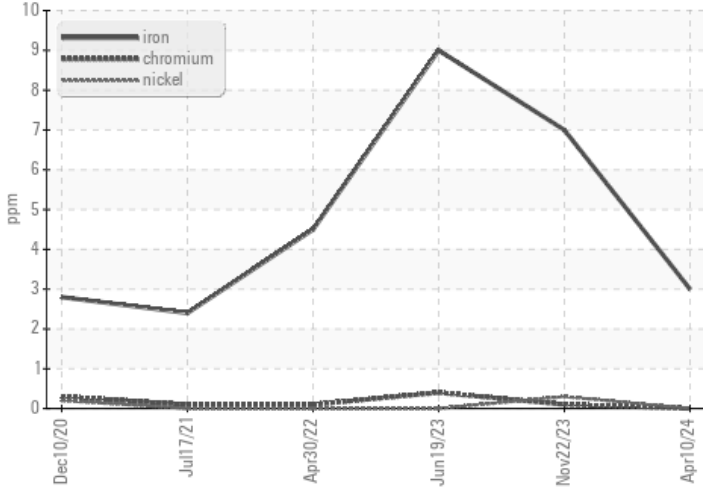


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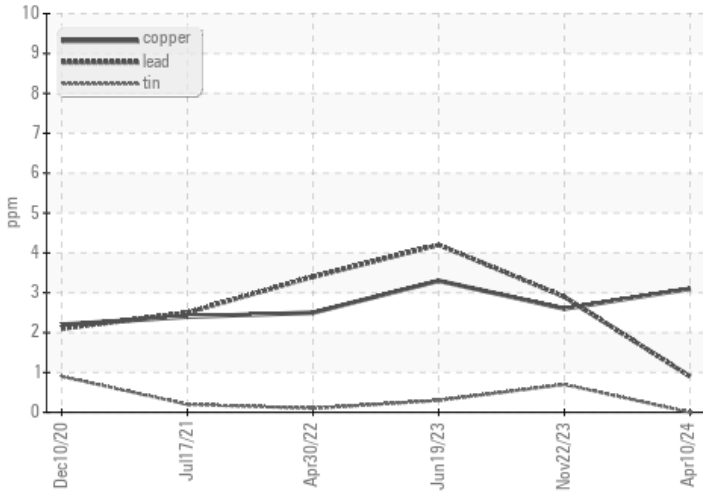


## VOLVO GRAPHS

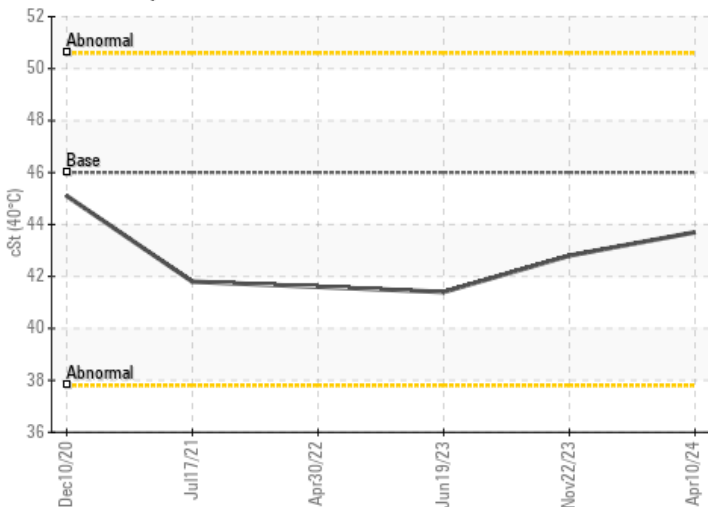
### Ferrous Alloys



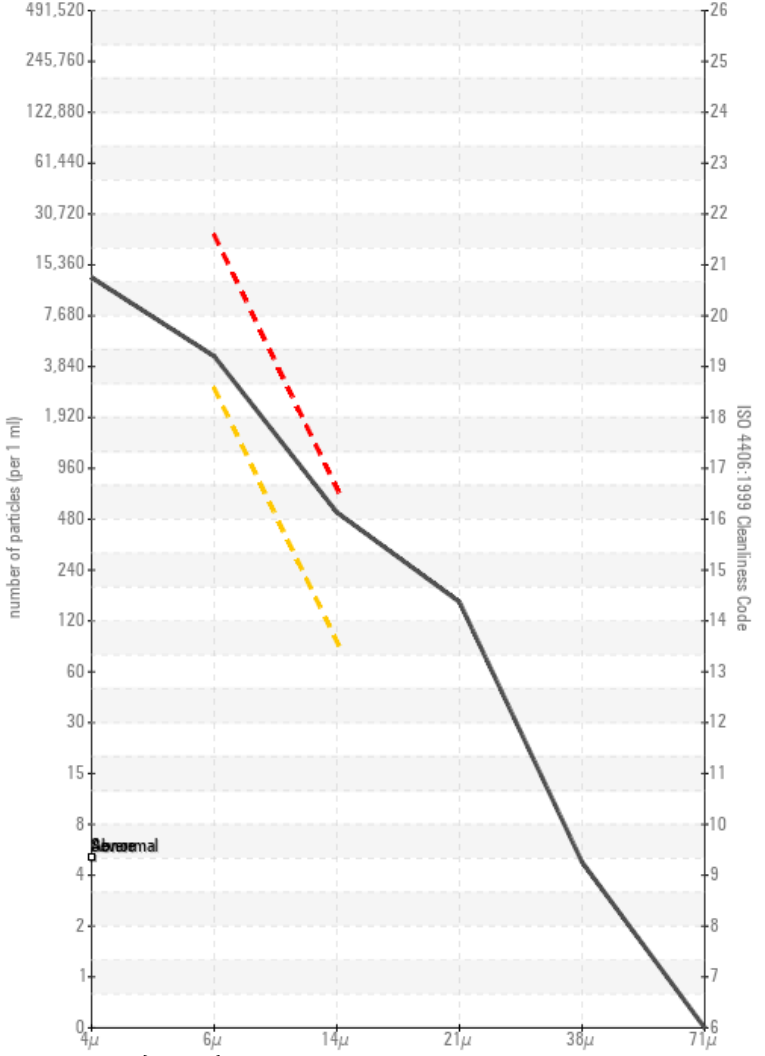
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

