



# CONSTRUCTION EQUIPMENT

## SW1021633 VOLVO ECR40D 14357 - HYDRAULIC SYSTEM



**Sample No:** VCP423013  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SW1021633



### SAMPLE INFORMATION

|               |             |             |     |     |
|---------------|-------------|-------------|-----|-----|
| Sample Number | VCP423013   | VCP319786   | --- | --- |
| Sample Date   | 08 Aug 2023 | 03 Nov 2021 | --- | --- |
| Machine Hours | 0           | 1196        | --- | --- |
| Oil Hours     | 0           | 1196        | --- | --- |
| Oil Changed   | Not Changed | Changed     | --- | --- |
| Sample Status | SEVERE      | ABNORMAL    | --- | --- |

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### OIL CONDITION

|                  |          |      |       |     |     |
|------------------|----------|------|-------|-----|-----|
| Visc @ 40°C      | cSt      | 42.7 | 42.0  | --- | --- |
| Acid Number (AN) | mg KOH/g | 0.30 | 0.429 | --- | --- |



### CONTAMINATION

|                   |     |          |     |     |     |
|-------------------|-----|----------|-----|-----|-----|
| Particles >4µm    |     | 60185    | --- | --- | --- |
| Particles >6µm    |     | 2878     | --- | --- | --- |
| Particles >14µm   |     | 8        | --- | --- | --- |
| ISO 4406:1999 (c) |     | 23/19/10 | --- | --- | --- |
| Silicon           | ppm | 4        | 4   | --- | --- |
| Sodium            | ppm | 0        | 1   | --- | --- |
| Potassium         | ppm | 1        | 4   | --- | --- |



### WEAR METALS

|            |     |    |    |     |     |
|------------|-----|----|----|-----|-----|
| Iron       | ppm | 12 | 18 | --- | --- |
| Copper     | ppm | 32 | 34 | --- | --- |
| Lead       | ppm | 1  | <1 | --- | --- |
| Tin        | ppm | <1 | 0  | --- | --- |
| Aluminum   | ppm | <1 | <1 | --- | --- |
| Chromium   | ppm | <1 | <1 | --- | --- |
| Molybdenum | ppm | <1 | <1 | --- | --- |
| Nickel     | ppm | <1 | <1 | --- | --- |
| Titanium   | ppm | 0  | 0  | --- | --- |
| Silver     | ppm | 0  | 0  | --- | --- |
| Manganese  | ppm | <1 | <1 | --- | --- |
| Vanadium   | ppm | 0  | 0  | --- | --- |



### ADDITIVES

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| Calcium    | ppm | 24  | 42  | --- | --- |
| Magnesium  | ppm | 3   | 5   | --- | --- |
| Zinc       | ppm | 347 | 405 | --- | --- |
| Phosphorus | ppm | 291 | 287 | --- | --- |
| Barium     | ppm | 0   | <1  | --- | --- |
| Boron      | ppm | 0   | 6   | --- | --- |

### Diagnosis

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

**Depot:** VOLVO8770  
**Unique No:** 10604741  
**Signed:** Wes Davis  
**Report Date:** 16 Aug 2023

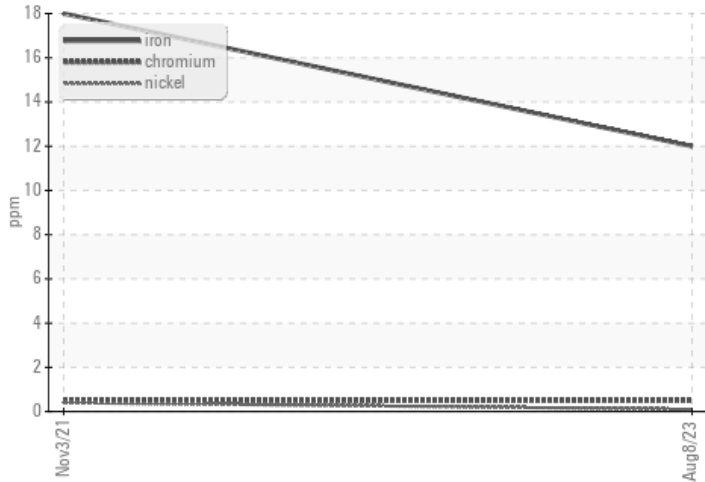


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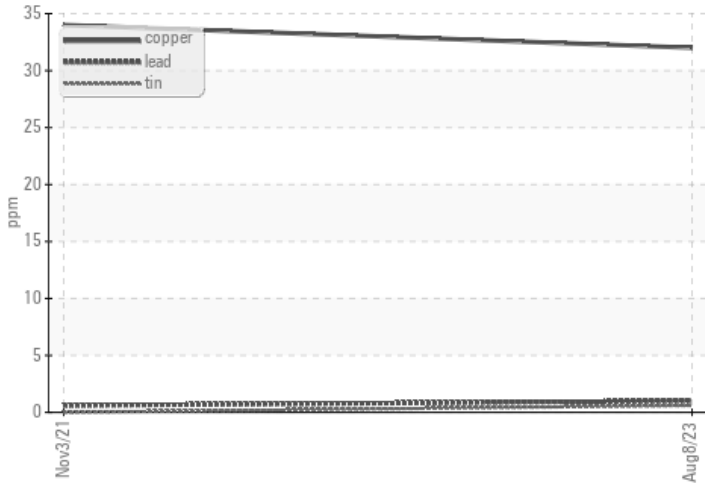


## GRAPHS

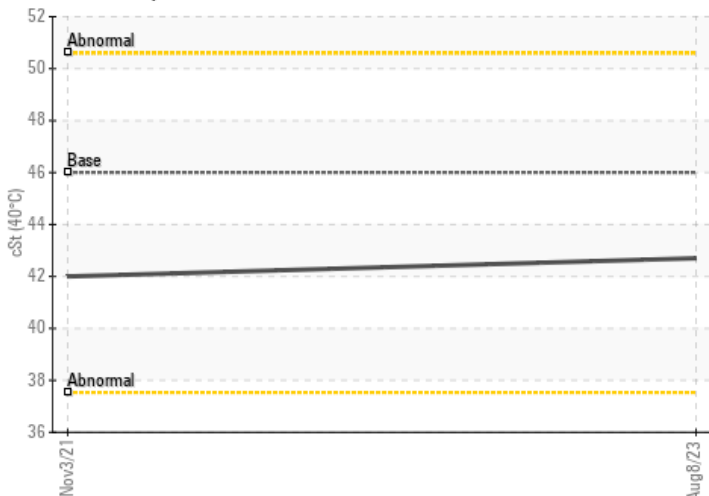
### Ferrous Alloys



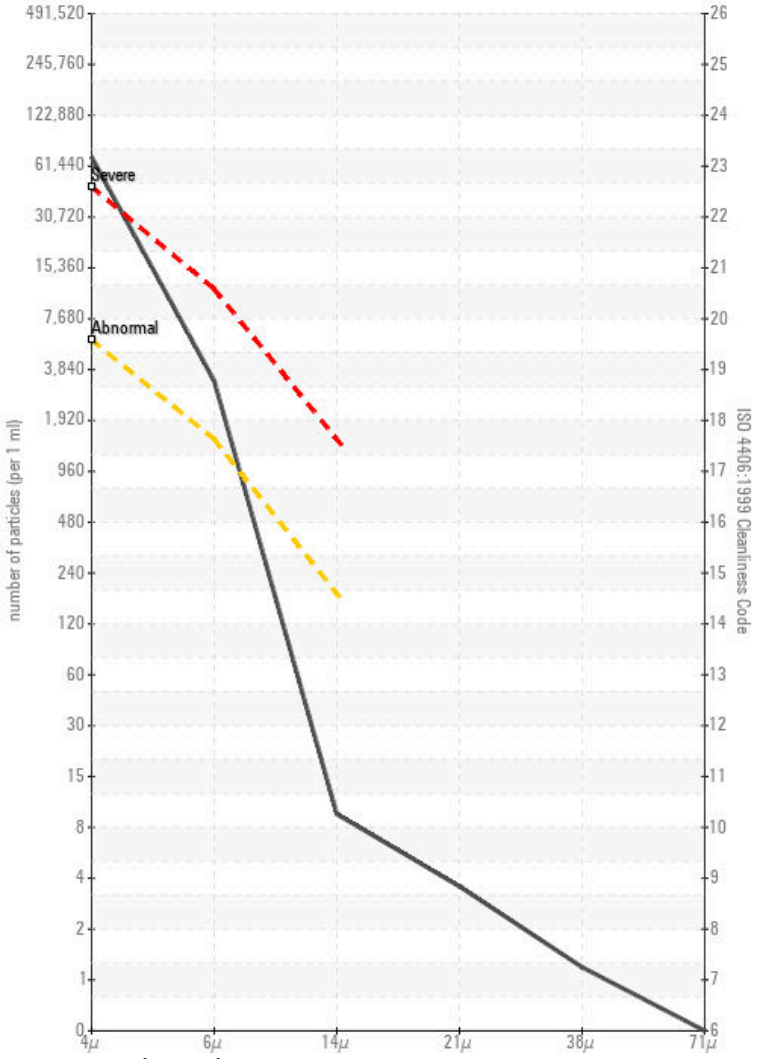
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

