



# CONSTRUCTION EQUIPMENT

## SWA032978-10 VOLVO EC700C 110759 - HYDRAULIC SYSTEM



**Sample No:** VCP376021  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SWA032978-10



### SAMPLE INFORMATION

| Sample Number | VCP376021   | VCP328317   | VCP321287   | VCP336119   |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date   | 12 Aug 2022 | 22 Mar 2022 | 30 Dec 2021 | 27 Sep 2021 |
| Machine Hours | 12003       | 11462       | 11000       | 10500       |
| Oil Hours     | 0           | 0           | 1000        | 0           |
| Oil Changed   | Changed     | Not Changd  | Not Changd  | Not Changd  |
| Sample Status | ABNORMAL    | ABNORMAL    | ABNORMAL    | ABNORMAL    |

### THALLE INDUSTRIES

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### OIL CONDITION

| Visc @ 40°C      | cSt      | 41.6 | 41.3 | 41.5 | 40.9  |
|------------------|----------|------|------|------|-------|
| Acid Number (AN) | mg KOH/g | 0.34 | 0.33 | 0.30 | 0.463 |



### CONTAMINATION

| Water             | %   | NEG | NEG      | NEG      | NEG  |
|-------------------|-----|-----|----------|----------|------|
| Particles >4µm    |     | --- | ▲ 80235  | ▲ 102504 | ---  |
| Particles >6µm    |     | --- | ■ 2946   | ■ 3416   | ---  |
| Particles >14µm   |     | --- | ■ 85     | ■ 113    | ---  |
| ISO 4406:1999 (c) |     | --- | 24/19/14 | 24/19/14 | ---  |
| Silicon           | ppm | ■ 9 | ■ 7      | ■ 10     | ■ 8  |
| Sodium            | ppm | ■ 2 | ■ 2      | ■ 2      | ■ <1 |
| Potassium         | ppm | ■ 1 | ■ 0      | ■ 2      | ■ 1  |

### Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



### WEAR METALS

|            |     |      |      |      |      |
|------------|-----|------|------|------|------|
| Iron       | ppm | ■ 31 | ■ 28 | ■ 27 | ■ 23 |
| Copper     | ppm | ■ 11 | ■ 10 | ■ 10 | ■ 10 |
| Lead       | ppm | ■ <1 | ■ <1 | ■ <1 | ■ <1 |
| Tin        | ppm | <1   | <1   | <1   | <1   |
| Aluminum   | ppm | ■ 3  | ■ 2  | ■ 6  | ■ 7  |
| Chromium   | ppm | ■ 1  | ■ 1  | ■ 2  | ■ 1  |
| Molybdenum | ppm | ■ 2  | ■ 2  | ■ 2  | ■ 2  |
| Nickel     | ppm | ■ 0  | ■ 0  | ■ 0  | ■ 0  |
| Titanium   | ppm | <1   | <1   | <1   | <1   |
| Silver     | ppm | <1   | <1   | <1   | 0    |
| Manganese  | ppm | ■ <1 | ■ <1 | ■ <1 | ■ <1 |
| Vanadium   | ppm | 0    | 0    | 0    | 0    |



### ADDITIVES

|            |     |       |       |       |       |
|------------|-----|-------|-------|-------|-------|
| Calcium    | ppm | ■ 180 | ■ 185 | ■ 235 | ■ 246 |
| Magnesium  | ppm | ■ 10  | ■ 7   | ■ 10  | ■ 9   |
| Zinc       | ppm | ■ 380 | ■ 402 | ■ 433 | ■ 489 |
| Phosphorus | ppm | ■ 344 | ■ 358 | ■ 365 | ■ 376 |
| Barium     | ppm | ■ 0   | ■ 0   | ■ 0   | ■ 0   |
| Boron      | ppm | ■ 7   | ■ 7   | ■ 8   | ■ 8   |

**Depot:** THAFIS  
**Unique No:** 10105130  
**Signed:** Don Baldrige  
**Report Date:** 26 Aug 2022

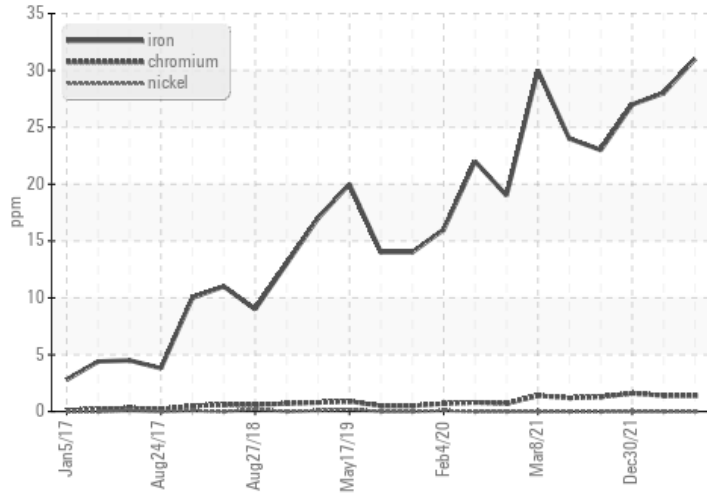


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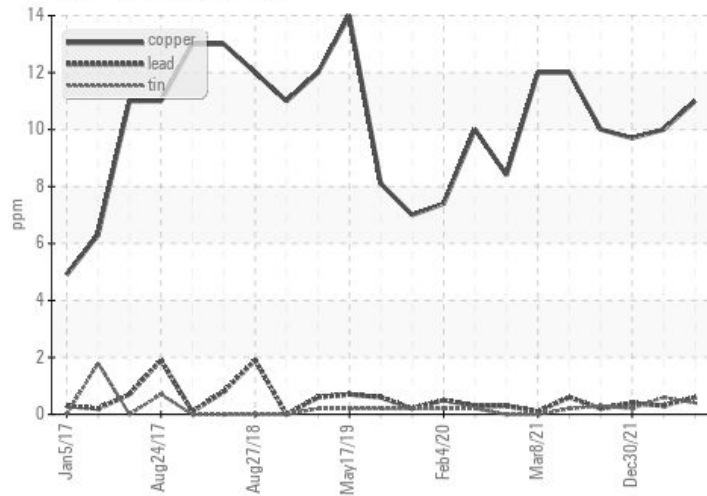


## GRAPHS

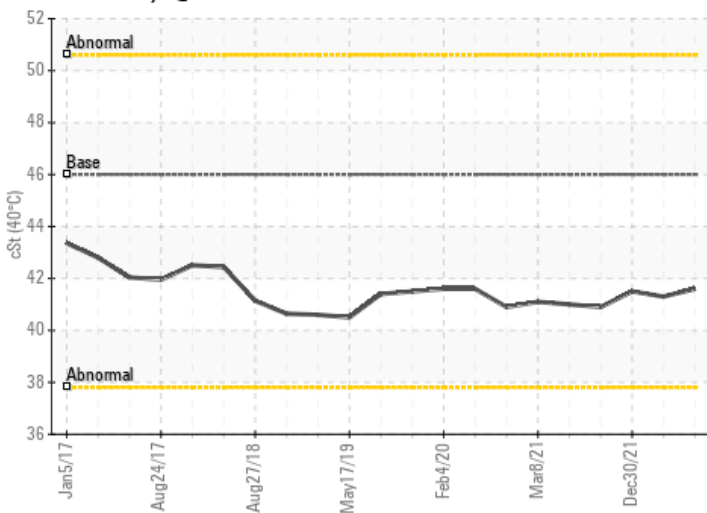
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number

