



# CONSTRUCTION EQUIPMENT

## SW27529 VOLVO ECR145E 31452 - HYDRAULIC SYSTEM



**Sample No:** VCP430506  
**Oil Type:** AW HYDRAULIC OIL ISO 46  
**Job No:** SW27529



**ARNOLD MACHINERY COMPANY**  
 3330 NORTH YELLOWSTONE HIGHWAY  
 IDAHO FALLS, ID  
 US 83401  
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### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP430506   | --- | --- | --- |
| Sample Date   | 13 Dec 2023 | --- | --- | --- |
| Machine Hours | 2127        | --- | --- | --- |
| Oil Hours     | 2127        | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |



### OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 40°C      | cSt      | █ 42.0 | --- | --- | --- |
| Acid Number (AN) | mg KOH/g | █ 0.46 | --- | --- | --- |



### CONTAMINATION

|                   |     |          |     |     |     |
|-------------------|-----|----------|-----|-----|-----|
| Water             | %   | NEG      | --- | --- | --- |
| Particles >4µm    |     | ▲ 55257  | --- | --- | --- |
| Particles >6µm    |     | ▲ 17575  | --- | --- | --- |
| Particles >14µm   |     | █ 1836   | --- | --- | --- |
| ISO 4406:1999 (c) |     | 23/21/18 | --- | --- | --- |
| Silicon           | ppm | █ 7      | --- | --- | --- |
| Sodium            | ppm | █ 0      | --- | --- | --- |
| Potassium         | ppm | █ 1      | --- | --- | --- |

### Diagnosis

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | █ 5  | --- | --- | --- |
| Copper     | ppm | █ 19 | --- | --- | --- |
| Lead       | ppm | █ <1 | --- | --- | --- |
| Tin        | ppm | █ 0  | --- | --- | --- |
| Aluminum   | ppm | █ 2  | --- | --- | --- |
| Chromium   | ppm | █ <1 | --- | --- | --- |
| Molybdenum | ppm | █ <1 | --- | --- | --- |
| Nickel     | ppm | █ 0  | --- | --- | --- |
| Titanium   | ppm | <1   | --- | --- | --- |
| Silver     | ppm | 0    | --- | --- | --- |
| Manganese  | ppm | █ 0  | --- | --- | --- |
| Vanadium   | ppm | 0    | --- | --- | --- |



### ADDITIVES

|            |     |       |     |     |     |
|------------|-----|-------|-----|-----|-----|
| Calcium    | ppm | █ 100 | --- | --- | --- |
| Magnesium  | ppm | █ 6   | --- | --- | --- |
| Zinc       | ppm | █ 526 | --- | --- | --- |
| Phosphorus | ppm | █ 402 | --- | --- | --- |
| Barium     | ppm | █ 6   | --- | --- | --- |
| Boron      | ppm | █ 0   | --- | --- | --- |

**Depot:** VOLVO0077  
**Unique No:** 10795801  
**Signed:** Wes Davis  
**Report Date:** 21 Dec 2023

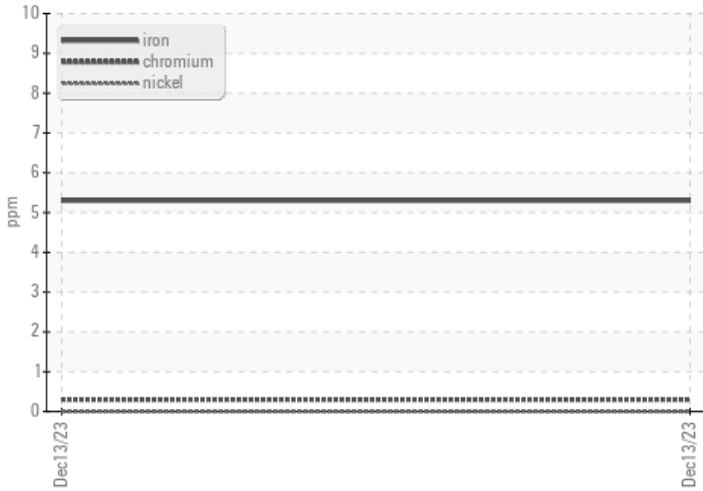


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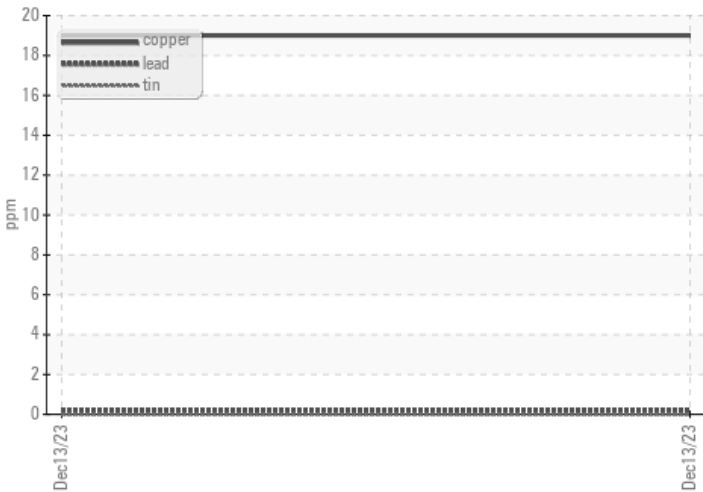


## GRAPHS

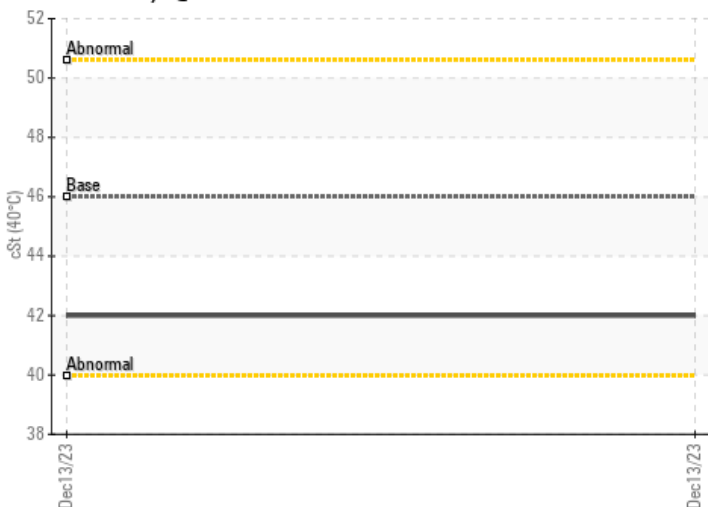
### Ferrous Alloys



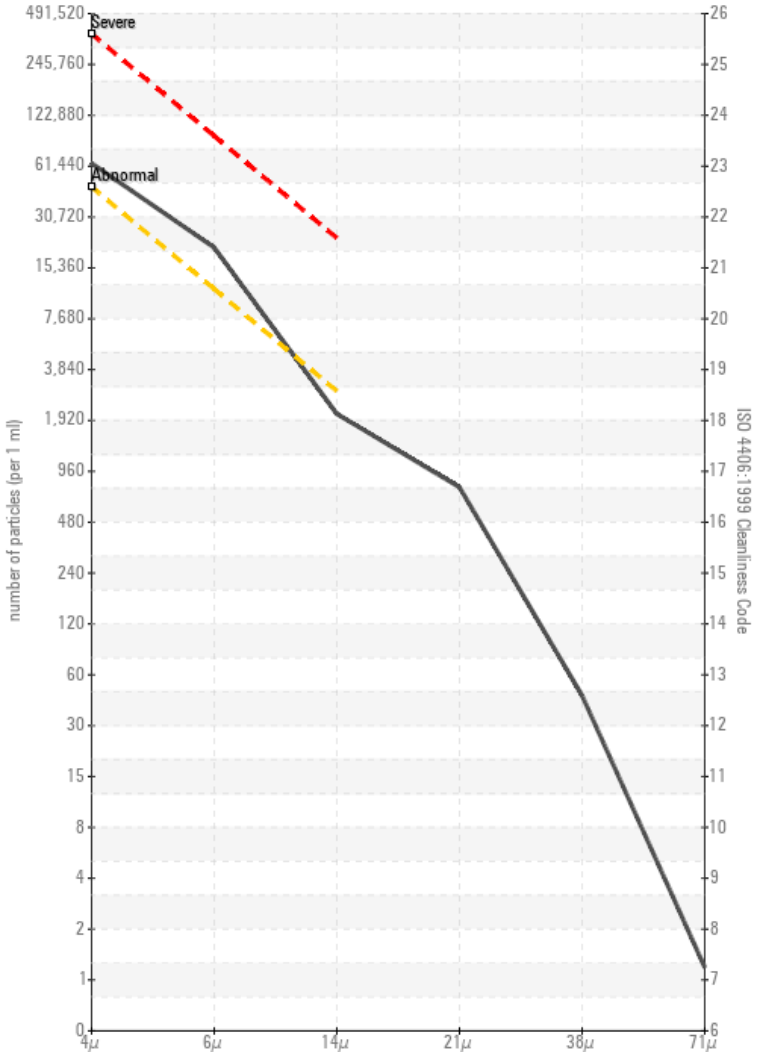
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

