



# CONSTRUCTION EQUIPMENT

## SWA337879 SYNERGY VOLVO L70H 623927 - DIESEL ENGINE



**Sample No:** VCP417206  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWA337879 SYNERGY



### SAMPLE INFORMATION

|               |                    |             |             |     |
|---------------|--------------------|-------------|-------------|-----|
| Sample Number | <b>VCP417206</b>   | VCP357931   | VCP307046   | --- |
| Sample Date   | <b>17 Aug 2023</b> | 20 Apr 2022 | 09 Mar 2021 | --- |
| Machine Hours | <b>2981</b>        | 1974        | 1083        | --- |
| Oil Hours     | <b>0</b>           | 0           | 0           | --- |
| Oil Changed   | <b>N/A</b>         | Changed     | Changed     | --- |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | --- |



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### OIL CONDITION

|                  |          |             |      |      |     |
|------------------|----------|-------------|------|------|-----|
| Visc @ 100°C     | cSt      | <b>13.4</b> | 12.8 | 13.3 | --- |
| Base Number (BN) | mg KOH/g | <b>7.5</b>  | 9.9  | ---  | --- |
| Oxidation (PA)   | %        | <b>67</b>   | 88   | 67   | --- |



### CONTAMINATION

|                |     |                |      |      |     |
|----------------|-----|----------------|------|------|-----|
| Soot %         | %   | <b>0.6</b>     | 0.7  | 0.7  | --- |
| Nitration (PA) | %   | <b>83</b>      | 91   | 84   | --- |
| Sulfation (PA) | %   | <b>57</b>      | 67   | 65   | --- |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | --- |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | --- |
| Silicon        | ppm | <b>8</b>       | 9    | 20   | --- |
| Sodium         | ppm | <b>2</b>       | <1   | 5    | --- |
| Potassium      | ppm | <b>3</b>       | 0    | 0    | --- |



### WEAR METALS

|            |     |              |    |    |     |
|------------|-----|--------------|----|----|-----|
| Iron       | ppm | <b>22</b>    | 30 | 58 | --- |
| Copper     | ppm | <b>3</b>     | 4  | 15 | --- |
| Lead       | ppm | <b>1</b>     | 1  | 3  | --- |
| Tin        | ppm | <b>2</b>     | 2  | 0  | --- |
| Aluminum   | ppm | <b>21</b>    | 17 | 15 | --- |
| Chromium   | ppm | <b>1</b>     | 2  | 4  | --- |
| Molybdenum | ppm | <b>61</b>    | 38 | 13 | --- |
| Nickel     | ppm | <b>0</b>     | <1 | <1 | --- |
| Titanium   | ppm | <b>&lt;1</b> | 0  | <1 | --- |
| Silver     | ppm | <b>0</b>     | <1 | 0  | --- |
| Manganese  | ppm | <b>1</b>     | 1  | 4  | --- |
| Vanadium   | ppm | <b>&lt;1</b> | 0  | 0  | --- |



### ADDITIVES

|            |     |             |      |      |     |
|------------|-----|-------------|------|------|-----|
| Calcium    | ppm | <b>1240</b> | 1734 | 1490 | --- |
| Magnesium  | ppm | <b>970</b>  | 576  | 789  | --- |
| Zinc       | ppm | <b>1270</b> | 1113 | 946  | --- |
| Phosphorus | ppm | <b>953</b>  | 958  | 795  | --- |
| Barium     | ppm | <b>0</b>    | 0    | 0    | --- |
| Boron      | ppm | <b>0</b>    | 13   | 28   | --- |

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** VOLVO0095  
**Unique No:** 10616583  
**Signed:** Sean Felton  
**Report Date:** 24 Aug 2023

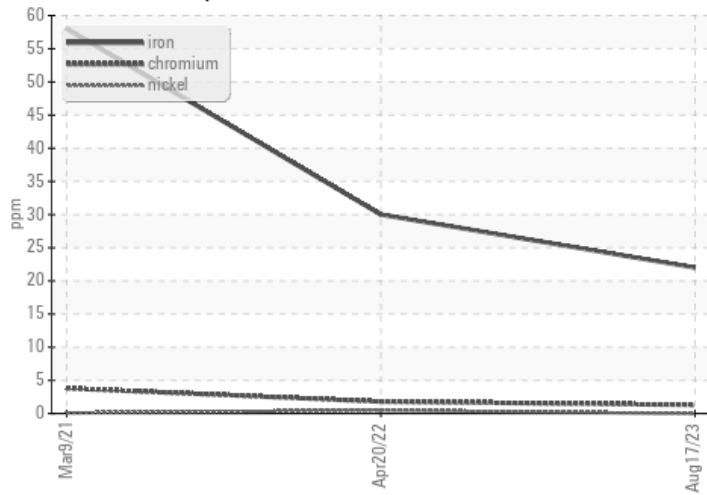


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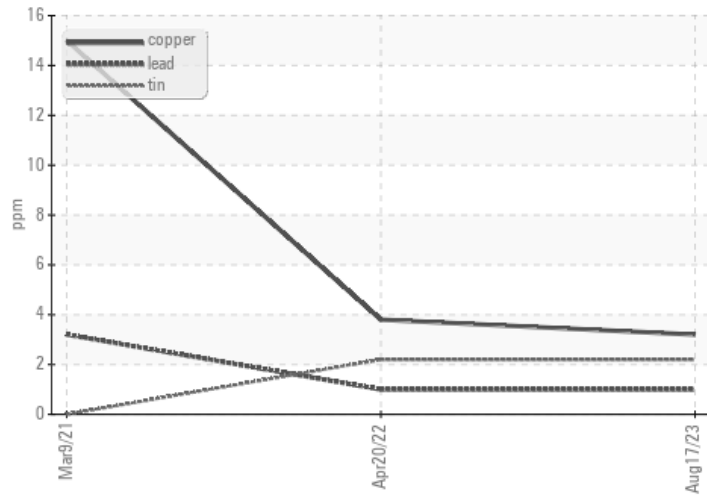


## GRAPHS

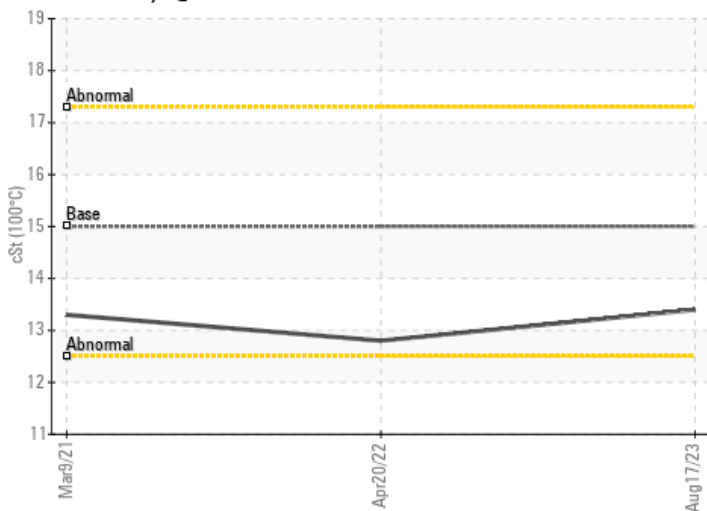
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number

