



# CONSTRUCTION EQUIPMENT

## VOLVO L120F 66586 - DIESEL ENGINE



**Sample No:** VCP409665  
**Oil Type:** GULF SUPER DUTY + 15W40  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP409665</b>   | VCP409676   | VCP371838   | VCP371836   |
| Sample Date   | <b>06 Sep 2023</b> | 25 Jul 2023 | 31 May 2023 | 23 Apr 2023 |
| Machine Hours | <b>28946</b>       | 28662       | 0           | 28015       |
| Oil Hours     | <b>300</b>         | 300         | 300         | 0           |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | N/A         |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

### WE CARE ORGANICS

800 CO CO LN  
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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>13.4</b> | 13.8 | 13.9 | 13.8 |
| Base Number (BN) | mg KOH/g | <b>8.5</b>  | 6.9  | 7.4  | 7.2  |
| Oxidation (PA)   | %        | <b>67</b>   | 57   | 57   | 56   |



### CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Soot %         | %   | <b>0.4</b>     | 0.4  | 0.3  | 0.3  |
| Nitration (PA) | %   | <b>68</b>      | 73   | 72   | 68   |
| Sulfation (PA) | %   | <b>56</b>      | 52   | 53   | 52   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>12</b>      | 11   | 9    | 9    |
| Sodium         | ppm | <b>3</b>       | 2    | 0    | 2    |
| Potassium      | ppm | <b>0</b>       | 2    | 2    | 0    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>5</b>     | 5  | 4  | 4  |
| Copper     | ppm | <b>0</b>     | <1 | <1 | 0  |
| Lead       | ppm | <b>0</b>     | <1 | 0  | 0  |
| Tin        | ppm | <b>&lt;1</b> | 0  | 0  | 0  |
| Aluminum   | ppm | <b>2</b>     | 1  | <1 | 2  |
| Chromium   | ppm | <b>0</b>     | <1 | 0  | 0  |
| Molybdenum | ppm | <b>59</b>    | 82 | 89 | 84 |
| Nickel     | ppm | <b>0</b>     | 0  | 0  | 0  |
| Titanium   | ppm | <b>0</b>     | <1 | 0  | 0  |
| Silver     | ppm | <b>0</b>     | <1 | 0  | 0  |
| Manganese  | ppm | <b>0</b>     | <1 | 0  | <1 |
| Vanadium   | ppm | <b>&lt;1</b> | <1 | 0  | 0  |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>2020</b> | 2158 | 2228 | 2155 |
| Magnesium  | ppm | <b>393</b>  | 134  | 103  | 140  |
| Zinc       | ppm | <b>1183</b> | 1253 | 1214 | 1324 |
| Phosphorus | ppm | <b>992</b>  | 993  | 1026 | 1065 |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>46</b>   | 51   | 73   | 74   |

### 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 suitable for further service.

**Depot:** SYNCOL  
**Unique No:** 10634958  
**Signed:** Wes Davis  
**Report Date:** 08 Sep 2023



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## GRAPHS

