



# CONSTRUCTION EQUIPMENT

## A12121 VOLVO L120H 633139 - DIESEL ENGINE



**Sample No:** VCP440440  
**Oil Type:** MOBIL 15W40  
**Job No:** A12121



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP440440</b>   | VCP434156   | VCP428751   | VCP430671   |
| Sample Date   | <b>14 Feb 2024</b> | 06 Dec 2023 | 05 Dec 2023 | 23 Oct 2023 |
| Machine Hours | <b>4430</b>        | 3950        | 4190        | 3630        |
| Oil Hours     | <b>250</b>         | 250         | 250         | 250         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

### GOURMETS DELIGHT

PO BOX 160  
 AVONDALE, PA  
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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>13.3</b> | 13.1 | 13.3 | 13.1 |
| Base Number (BN) | mg KOH/g | <b>7.2</b>  | 6.9  | 6.9  | 7.4  |
| Oxidation (PA)   | %        | <b>37</b>   | 39   | 37   | 43   |



### CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Water          | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Soot %         | %   | <b>0.1</b>     | 0.2  | 0.1  | 0.2  |
| Nitration (PA) | %   | <b>52</b>      | 53   | 50   | 55   |
| Sulfation (PA) | %   | <b>44</b>      | 45   | 44   | 47   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>3</b>       | 3    | 3    | 4    |
| Sodium         | ppm | <b>0</b>       | <1   | <1   | 2    |
| Potassium      | ppm | <b>3</b>       | 2    | 2    | 0    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>4</b>     | 5  | 3  | 8  |
| Copper     | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Lead       | ppm | <b>0</b>     | 0  | <1 | 0  |
| Tin        | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Aluminum   | ppm | <b>2</b>     | 2  | 2  | 2  |
| Chromium   | ppm | <b>&lt;1</b> | 0  | 0  | <1 |
| Molybdenum | ppm | <b>7</b>     | 11 | 8  | 24 |
| Nickel     | ppm | <b>0</b>     | 0  | 0  | 0  |
| Titanium   | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Silver     | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Manganese  | ppm | <b>0</b>     | <1 | <1 | <1 |
| Vanadium   | ppm | <b>0</b>     | 0  | 0  | 0  |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1886</b> | 1976 | 2076 | 1853 |
| Magnesium  | ppm | <b>71</b>   | 159  | 115  | 346  |
| Zinc       | ppm | <b>899</b>  | 1030 | 1072 | 1146 |
| Phosphorus | ppm | <b>834</b>  | 808  | 932  | 821  |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>7</b>    | 8    | 7    | 11   |

### 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:** GOUAVO  
**Unique No:** 10889479  
**Signed:** Wes Davis  
**Report Date:** 23 Feb 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

