



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 342610 - DIESEL ENGINE



**Sample No:** VCP447489  
**Oil Type:** MOBIL 15W40  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP447489</b>   | VCP433204   | VCP416996   | VCP312889   |
| Sample Date   | <b>07 May 2024</b> | 27 Mar 2024 | 07 Feb 2024 | 04 Dec 2023 |
| Machine Hours | <b>11749</b>       | 11444       | 11084       | 10786       |
| Oil Hours     | <b>305</b>         | 360         | 298         | 286         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>12.6</b> | 12.9 | 12.7 | 12.8 |
| Base Number (BN) | mg KOH/g | <b>9.0</b>  | 8.2  | 7.5  | 7.1  |
| Oxidation (PA)   | %        | <b>73</b>   | 69   | 63   | 60   |

### 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.



### CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Water          | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Soot %         | %   | <b>0.2</b>     | 0.2  | 0.2  | 0.2  |
| Nitration (PA) | %   | <b>58</b>      | 67   | 67   | 68   |
| Sulfation (PA) | %   | <b>57</b>      | 55   | 52   | 50   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 6    | 7    | 5    |
| Sodium         | ppm | <b>13</b>      | 6    | 4    | 0    |
| Potassium      | ppm | <b>11</b>      | 5    | 2    | 2    |



### WEAR METALS

|            |     |              |    |    |     |
|------------|-----|--------------|----|----|-----|
| Iron       | ppm | <b>5</b>     | 11 | 9  | 5   |
| Copper     | ppm | <b>&lt;1</b> | <1 | 1  | <1  |
| Lead       | ppm | <b>&lt;1</b> | 0  | <1 | <1  |
| Tin        | ppm | <b>&lt;1</b> | <1 | <1 | <1  |
| Aluminum   | ppm | <b>2</b>     | 4  | 5  | 4   |
| Chromium   | ppm | <b>&lt;1</b> | <1 | <1 | <1  |
| Molybdenum | ppm | <b>60</b>    | 89 | 97 | 117 |
| Nickel     | ppm | <b>1</b>     | 2  | 3  | 2   |
| Titanium   | ppm | <b>&lt;1</b> | <1 | <1 | <1  |
| Silver     | ppm | <b>&lt;1</b> | 0  | 0  | 0   |
| Manganese  | ppm | <b>&lt;1</b> | <1 | <1 | <1  |
| Vanadium   | ppm | <b>&lt;1</b> | <1 | <1 | 0   |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1538</b> | 1412 | 1191 | 1259 |
| Magnesium  | ppm | <b>506</b>  | 567  | 540  | 629  |
| Zinc       | ppm | <b>885</b>  | 825  | 790  | 841  |
| Phosphorus | ppm | <b>772</b>  | 680  | 630  | 691  |
| Barium     | ppm | <b>0</b>    | 0    | 34   | 11   |
| Boron      | ppm | <b>74</b>   | 110  | 92   | 126  |

**Depot:** SCHGRE  
**Unique No:** 11032240  
**Signed:** Jonathan Hester  
**Report Date:** 20 May 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

