



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352497 - DIESEL ENGINE



**Sample No:** VCP451108  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP451108</b>   | VCP426734   | VCP322795   | VCP324316   |
| Sample Date   | <b>16 May 2024</b> | 08 Dec 2023 | 28 Jun 2021 | 04 May 2021 |
| Machine Hours | <b>5924</b>        | 5137        | 1432        | 1085        |
| Oil Hours     | <b>0</b>           | 0           | 0           | 0           |
| Oil Changed   | <b>Changed</b>     | N/A         | N/A         | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

**ALTA EQUIPMENT COMPANY**  
 5151 DR MARTIN LUTHER KING BLVD  
 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.com  
 T:  
 F: (239)481-3302



### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>12.3</b> | 11.9 | 12.5 | 12.5 |
| Base Number (BN) | mg KOH/g | <b>7.8</b>  | 7.8  | ---  | ---  |
| Oxidation (PA)   | %        | <b>75</b>   | 65   | 86   | 87   |



### CONTAMINATION

|                |     |                |     |      |      |
|----------------|-----|----------------|-----|------|------|
| Water          | %   | <b>NEG</b>     | NEG | NEG  | NEG  |
| Soot %         | %   | <b>0.2</b>     | 0.2 | 0.2  | 0.2  |
| Nitration (PA) | %   | <b>62</b>      | 74  | 66   | 73   |
| Sulfation (PA) | %   | <b>57</b>      | 55  | 67   | 66   |
| Glycol         | %   | <b>NEG</b>     | NEG | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | 1.2 | <1.0 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 5   | 5    | 8    |
| Sodium         | ppm | <b>&lt;1</b>   | 1   | 2    | 6    |
| Potassium      | ppm | <b>2</b>       | <1  | 0    | 3    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>7</b>     | 6  | 6  | 9  |
| Copper     | ppm | <b>6</b>     | 19 | 2  | 4  |
| Lead       | ppm | <b>&lt;1</b> | 0  | 1  | 1  |
| Tin        | ppm | <b>1</b>     | <1 | <1 | 2  |
| Aluminum   | ppm | <b>3</b>     | 3  | 0  | 0  |
| Chromium   | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Molybdenum | ppm | <b>54</b>    | 50 | 64 | 45 |
| Nickel     | ppm | <b>4</b>     | 3  | <1 | <1 |
| Titanium   | ppm | <b>&lt;1</b> | 0  | <1 | <1 |
| Silver     | ppm | <b>&lt;1</b> | 0  | 10 | <1 |
| Manganese  | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Vanadium   | ppm | <b>&lt;1</b> | 0  | 0  | 0  |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1345</b> | 1553 | 1583 | 1641 |
| Magnesium  | ppm | <b>731</b>  | 643  | 469  | 493  |
| Zinc       | ppm | <b>1172</b> | 1171 | 1027 | 1071 |
| Phosphorus | ppm | <b>1026</b> | 971  | 901  | 939  |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>14</b>   | 23   | 78   | 91   |

### 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:** VOLVO0090  
**Unique No:** 11035291  
**Signed:** Sean Felton  
**Report Date:** 21 May 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

