



# VOLVO

## OIL ANALYSIS REPORT

|                 |          |
|-----------------|----------|
| WEAR            | NORMAL   |
| CONTAMINATION   | ABNORMAL |
| FLUID CONDITION | NORMAL   |



Machine Id  
**VOLVO L90H 626191**

Component  
**Hydraulic System**

Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | VCP438725   | ---      | ---      |
| Sample Date    |     | Client Info |           | 25 May 2024 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 4806        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 0           | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0           | ---      | ---      |
| Oil Changed    |     | Client Info |           | Changed     | ---      | ---      |
| Filter Changed |     | Client Info |           | Changed     | ---      | ---      |
| Sample Status  |     |             |           | ABNORMAL    | ---      | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >50  | 1    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | 2    | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | 0    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >20  | 0    | --- | --- |
| Copper       | ppm    | ASTM D5185m | >150 | 2    | --- | --- |
| Tin          | ppm    | ASTM D5185m | >20  | 0    | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

### CONTAMINATION

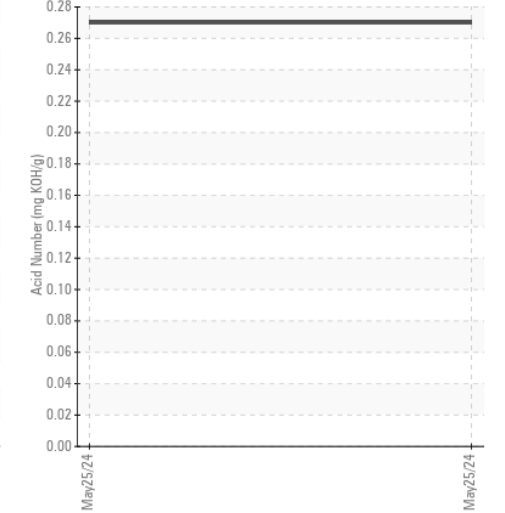
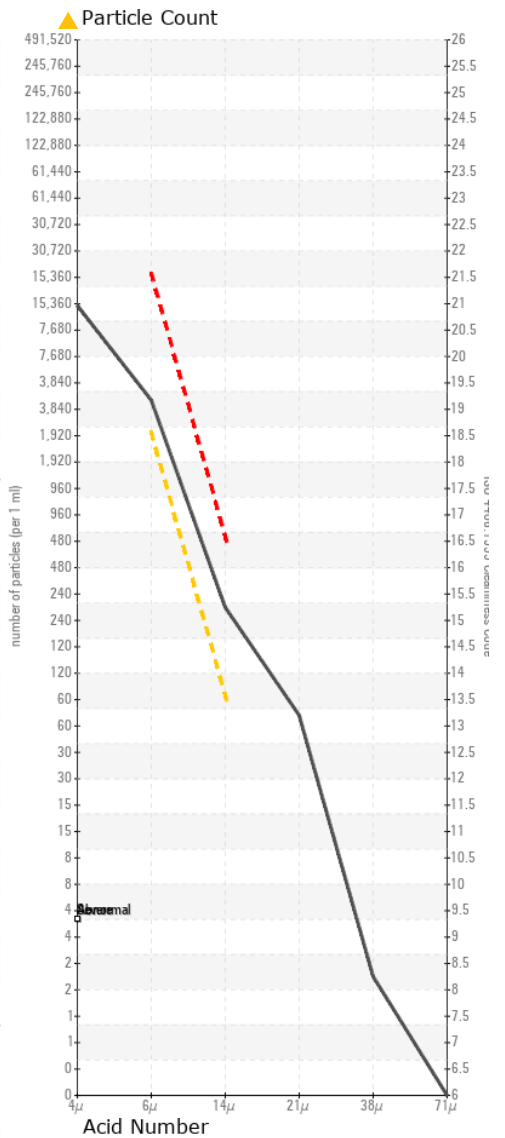
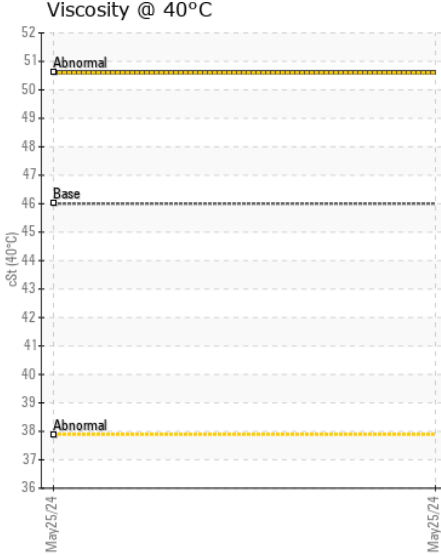
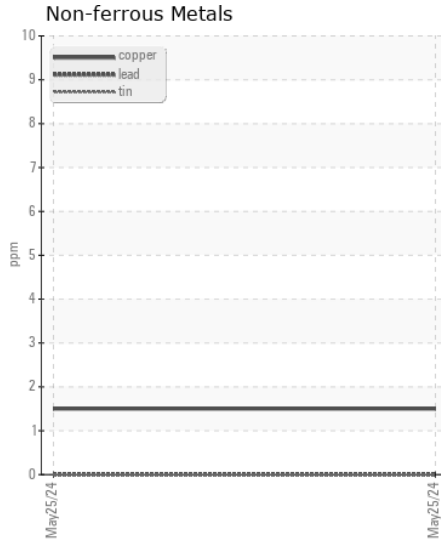
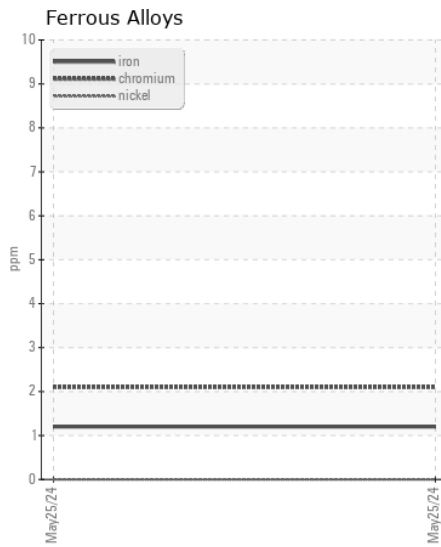
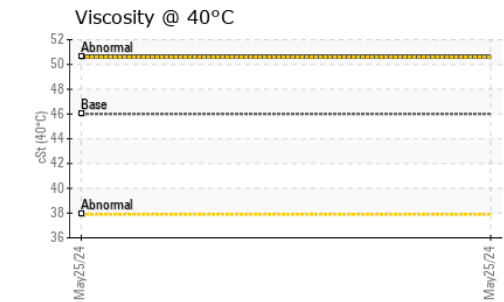
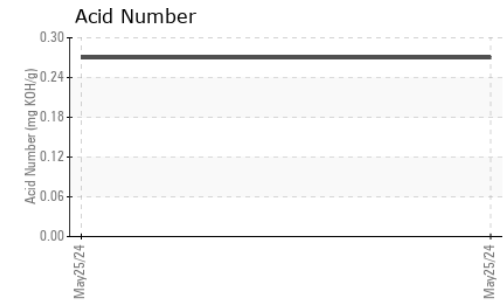
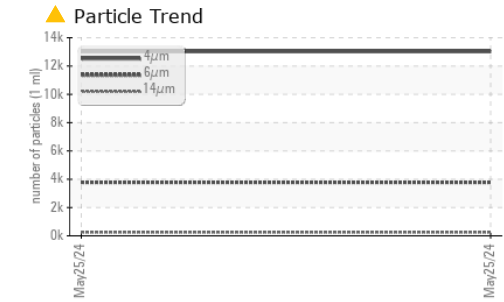
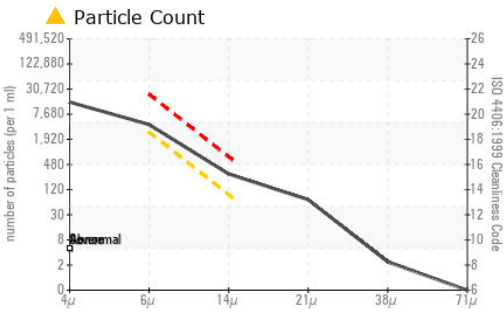
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

|                  |        |              |          |          |     |     |
|------------------|--------|--------------|----------|----------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >20      | 0        | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20      | 0        | --- | --- |
| Water            |        | WC Method    | >0.1     | NEG      | --- | --- |
| Particles >4µm   |        | ASTM D7647   |          | 13023    | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >2500    | 3778     | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >80      | 251      | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >20      | 61       | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >4       | 2        | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >3       | 0        | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >-/18/13 | 21/19/15 | --- | --- |
| Silt             | scalar | *Visual      | NONE     | NONE     | --- | --- |
| Debris           | scalar | *Visual      | NONE     | NONE     | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE     | NONE     | --- | --- |
| Appearance       | scalar | *Visual      | NORML    | NORML    | --- | --- |
| Odor             | scalar | *Visual      | NORML    | NORML    | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.1     | NEG      | --- | --- |

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

|                  |          |             |      |      |     |     |
|------------------|----------|-------------|------|------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |      | 4    | --- | --- |
| Boron            | ppm      | ASTM D5185m | 14   | 0    | --- | --- |
| Barium           | ppm      | ASTM D5185m | 0.0  | 0    | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m | 0.0  | 0    | --- | --- |
| Manganese        | ppm      | ASTM D5185m | 0.0  | 0    | --- | --- |
| Magnesium        | ppm      | ASTM D5185m | 2.6  | 1    | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 49   | 77   | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 354  | 337  | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 419  | 427  | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 3719 | 2337 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |      | 0.27 | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 46   | 50.6 | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP438725  
**Lab Number** : 06197564  
**Unique Number** : 11059687  
**Test Package** : MOB 2

**Received** : 03 Jun 2024  
**Tested** : 04 Jun 2024  
**Diagnosed** : 04 Jun 2024 - Wes Davis

**ALTA EQUIPMENT COMPANY**  
 5151 DR MARTIN LUTHER KING BLVD  
 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
 F: (239)481-3302