

## **OIL ANALYSIS REPORT**

Sample Rating Trend





DIAGNOSIS

monitor.

Wear

the oil.

Recommendation

Contamination

Fluid Condition

VOLVO A30G 740132

Hydraulic System

VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

## SAMPLE INFORMATION method limit/base current history1 history2 ML0001116 VCP302534 Sample Number **Client Info** We recommend you service the filters on this 18 May 2021 ----Sample Date Client Info 22 May 2024 component. Resample at the next service interval to Client Info 0 Machine Age hrs 3976 Oil Age hrs Client Info 0 0 Oil Changed N/A **Client Info** Changed All component wear rates are normal. Sample Status ABNORMAL NORMAL CONTAMINATION method limit/base current history1 history2 There is a high amount of particulates present in NEG Water WC Method >0.1 NEG WEAR METALS limit/base method current history1 history2 The AN level is acceptable for this fluid. The Iron ASTM D5185m >50 7 10 ppm condition of the oil is suitable for further service. Chromium ASTM D5185m >20 ppm <1 <1 Nickel 0 0 ppm ASTM D5185m >10 Titanium ASTM D5185m 0 0 ppm 0 Silver <1 ppm ASTM D5185m Aluminum ppm ASTM D5185m >20 3 3 ASTM D5185m >20 2 4 Lead ppm 4 8 Copper ppm ASTM D5185m >150 0 Tin ASTM D5185m >20 <1 ppm 0 Antimony ppm ASTM D5185m ---0 Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 0 **ADDITIVES** method limit/base current history history2 4 14 0 Boron ppm ASTM D5185m Barium ppm ASTM D5185m 0.0 0 0 ASTM D5185m 0.0 0 Molybdenum ppm <1 0 Manganese ppm ASTM D5185m 0.0 <1 2 2.6 Magnesium ppm ASTM D5185m 4 Calcium ASTM D5185m 49 1075 69 ppm Phosphorus ppm ASTM D5185m 354 589 337 Zinc ASTM D5185m 419 703 433 ppm Sulfur 3719 5744 ppm ASTM D5185m 4163 **CONTAMINANTS** method limit/base current history1 history2 Silicon ASTM D5185m >20 8 8 ppm Sodium ASTM D5185m 3 2 ppm Potassium ASTM D5185m >20 <1 <1 ppm FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 80251 417 24806 80 >5000 Particles >6µm ASTM D7647 Particles >14µm ASTM D7647 >160 1089 16 5 Particles >21µm ASTM D7647 >40 190 Particles >38µm ASTM D7647 >10 5 0 0 0 Particles >71µm ASTM D7647 >3

ISO 4406 (c)

>--/19/14

Machine Id

**Oil Cleanliness** 

16/13/11

24/22/17



A Particle Trend

Particle Trend

100k

number of particles (1 ml) 40k 509

60k

0k May18/21

er of particles (1 ml) 09 09 08 60k 40k 20 0k May18/2

0.70

(B/HOX BW) Ja

Via 0.30 Via Number Via 0.20 Via 0.10

0.00 May18/21

52 Abnormal 50 48 ()-46 ()-0<del>1</del> 44 150 42 Base

40

5

回题

Abnormal 38 36 May18/21

## **OIL ANALYSIS REPORT**

|                                | FLUID DEGRAD                                | ATION                           | method                               | limit/base                               | current            | history1 | history2   |
|--------------------------------|---|---------------------------------|--------------------------------------|--|--------------------|----------|--|
| 4μm<br>6μm                     | Acid Number (AN)                            | mg KOH/g                        | ASTM D8045                           |  | 0.61               | 0.463    |  |
| 14μm                           | VISUAL                                      |                                 | method                               | limit/base                               | current            | history1 | history2   |
|                                | White Metal                                 | scalar                          | *Visual                              | NONE                                     | NONE               | NONE     |  |
|                                | Yellow Metal                                | scalar                          | *Visual                              | NONE                                     | NONE               | NONE     |  |
|                                | Precipitate                                 | scalar                          | *Visual                              | NONE                                     | NONE               | NONE     |  |
| 4                              | Silt  | scalar                          | *Visual                              | NONE                                     | NONE               | NONE     |  |
| May22/24                       | Debris                                      | scalar                          | *Visual                              | NONE                                     | LIGHT              | NONE     |  |
|                                | Sand/Dirt                                   | scalar                          | *Visual                              | NONE                                     | NONE               | NONE     |  |
| rticle Trend                   | Appearance                                  | scalar                          | *Visual                              | NORML                                    | NORML              | NORML    |  |
| 4μm<br>6μm                     | Odor  | scalar                          | *Visual                              | NORML                                    | NORML              | NORML    |  |
| 14µm                           | Emulsified Water                            | scalar                          | *Visual                              | >0.1                                     | NEG                | NEG      |  |
|                                | Free Water                                  | scalar                          | *Visual                              |  | NEG                | NEG      |  |
|                                | FLUID PROPER                                | TIES                            | method                               | limit/base                               | current            | history1 | history2   |
|                                | Visc @ 40°C                                 | cSt                             | ASTM D445                            | 46                                       | 40.8               | 45.3     |  |
| May22/24                       | SAMPLE IMAGE                                | S                               | method                               | limit/base                               | current            | history1 | history2   |
| d Number                       | Color                                       |                                 |                                      |  |                    |          | no image   |
|                                | Bottom                                      |                                 |                                      |  |                    |          | no image   |
|                                | GRAPHS                                      |                                 |                                      |  |                    |          |  |
| \$                             | Ferrous Alloys                              |                                 |                                      | 101 500                                  | Particle Count     | :        | 20   |
| ₩ 4 m                          | 10 iron                                     |                                 |                                      | 491,520                                  |                    |          | T <sup>26</sup>                                  |
| scosity @ 40°C                 | E 5-  |                                 |                                      | 122,880                                  |                    |          | -24  |
| normal                         | d   |                                 |                                      | 30,720                                   | · ·                |          | -22  |
|                                |   |                                 |                                      | = 7,680                                  |                    |          | -20  |
| se                             | May18/2                                     |                                 |                                      | May22/24<br>s (per 1 m                   | 1                  | •        | -20<br>-18<br>-16<br>-14                         |
|                                | —   |                                 |                                      | 0  | ×                  | 1        | TIC  |
|                                | Non-ferrous Meta                            | S                               |                                      |  | ````               |          | -16  |
| nomal                          | copper                                      |                                 |                                      | Jan 120                                  |                    |          |  |
| 2                              | E. 5 -                                      |                                 |                                      | 30                                       |                    |          | -12  |
| 160-                           | Adapted as an interest from the set of some | Charles Charles Charles Charles | anti-terre the set the set of second |  |                    |          |  |
| 4 W                            | 0   |                                 | ***                                  |  | S <b>breve</b> mal |          |  |
|                                | May18/2                                     |                                 |                                      | May22/24                                 |                    |          |  |
|                                |   |                                 |                                      | ₩ 0 <u>4</u>                             | μ 6μ               | 14µ 21µ  | 38µ 71µ  |
|                                | Viscosity @ 40°C                            |                                 |                                      | Basa                                     | Acid Number        |          |  |
|                                | les e                                       |                                 |                                      | (DH0.80<br>0.60<br>Bu 0.60               | 1                  |          |  |
|                                | 50<br>Base<br>45<br>3 40                    |                                 |                                      | E 0.40                                   |                    |          |  |
|                                | <sup>药</sup> 40 - Abnormal                  |                                 |                                      | ba 0.40                                  |                    |          |  |
|                                | 35  |                                 |                                      |  |                    |          |  |
|                                | May18/2                                     |                                 |                                      | May22/24                                 | May18/2            |          |  |
|                                | Ma  |                                 |                                      | May                                      | Mar                |          |  |
| Certificate L2367 Test Package | : 11058733                                  | Recei<br>Teste<br>Diagr         | ved : 31   d : 03   iosed : 03       | May 2024<br>3 Jun 2024<br>Jun 2024 - Don | Baldridge          |          | EX HIGHWA<br>DGEVILLE, D<br>US 1993<br>MATT CLAR |

Contact/Location: MATT CLARK - VOLVO1023