

| WEAR            | NORMAL   |
|-----------------|----------|
| CONTAMINATION   | NORMAL   |
| FLUID CONDITION | ATTENTIO |

18.7

8.7

11.8

## Area [A12461] VOLVO A30C 60035 **Diesel Engine** Fluid - - .

| RECOMMENDATION  | Test             | UOM        | Method                 | Limit/Abn | Current     | History1    | History2   |
|---|------------------|------------|------------------------|-----------|-------------|-------------|------------|
|   | Sample Number    |            | Client Info            |           | VCP446445   | VCP430655   | VCP40892   |
| Oil and filter change at the time of sampling has been noted. Resample<br>at the next service interval to monitor.                        | Sample Date      |            | Client Info            |           | 12 Apr 2024 | 20 Oct 2023 | 27 Jun 202 |
|   | Machine Age      | hrs        | Client Info            |           | 21680       | 21415       | 21170      |
|   | Oil Age          | hrs        | Client Info            |           | 250         | 250         | 250        |
|   | Filter Age       | hrs        | Client Info            |           | 0           | 0           | 0          |
|   | Oil Changed      |            | Client Info            |           | Changed     | Changed     | Changed    |
|   | Filter Changed   |            | Client Info            |           | Changed     | Changed     | Changed    |
|   | Sample Status    |            |                        |           | ATTENTION   | ATTENTION   | ATTENTIO   |
| WEAR  | Iron             | nom        | ASTM D5185m            | <200      | 21          | 23          | 24         |
|   | Chromium         | ppm<br>ppm | ASTM D5185m            |           | <1          | <1          | <1         |
| All component wear rates are normal.  | Nickel           | ppm        | ASTM D5185m            |           | <1          | <1          | 0          |
|   | Titanium         | ppm        | ASTM D5185m            | 210       | 2           | 6           | 36         |
|   | Silver           | ppm        | ASTM D5185m            | >2        | 0           | 0           | 0          |
|   | Aluminum         | ppm        | ASTM D5185m            |           | 2           | 1           | <1         |
|   | Lead             | ppm        | ASTM D5185m            |           | 4           | 5           | 4          |
|   | Copper           | ppm        | ASTM D5185m            |           | 2           | 2           | 2          |
|   | Tin              | ppm        | ASTM D5185m            | >20       | <1          | <1          | <1         |
|   | Vanadium         | ppm        | ASTM D5185m            |           | <1          | 0           | <1         |
|   | White Metal      | scalar     | *Visual                | NONE      | NONE        | NONE        | NONE       |
|   | Yellow Metal     | scalar     | *Visual                | NONE      | NONE        | NONE        | NONE       |
|   |                  |            |                        |           |             |             |            |
| CONTAMINATION   | Silicon          | ppm        | ASTM D5185m            |           | 5           | 5           | 7          |
| Fuel content negligible. There is no indication of any contamination in the oil.  | Potassium        | ppm        | ASTM D5185m            |           | 5           | 4           | <1         |
|   | Fuel             | %          | ASTM D3524             |           | 1.3         | <1.0        | 0.8        |
|   | Water            |            | WC Method<br>WC Method | >0.2      | NEG         | NEG         | NEG<br>NEG |
|   | Glycol<br>Soot % | %          | *ASTM D7844            | . 2       | NEG<br>0.2  | NEG<br>0.2  | 0.2        |
|   | Nitration        | Abs/cm     | *ASTM D7644            | >3<br>>20 | 8.3         | 8.9         | 10.0       |
|   | Sulfation        | Abs/.1mm   | *ASTM D7024            |           | 18.3        | 19.2        | 21.7       |
|   | Silt             | scalar     | *Visual                | NONE      | NONE        | NONE        | NONE       |
|   | Debris           | scalar     | *Visual                | NONE      | NONE        | NONE        | NONE       |
|   | Sand/Dirt        | scalar     | *Visual                | NONE      | NONE        | NONE        | NONE       |
|   | Appearance       | scalar     | *Visual                | NORML     | NORML       | NORML       | NORM       |
|   | Odor             | scalar     | *Visual                | NORML     | NORML       | NORML       | NORM       |
|   | Emulsified Water | scalar     | *Visual                | >0.2      | NEG         | NEG         | NEG        |
|   |                  |            |                        |           |             |             |            |
| FLUID CONDITION   | Sodium           | ppm        | ASTM D5185m            | >118      | 43          | 93          | 16         |
| The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. | Boron            | ppm        | ASTM D5185m            |           | 9           | 15          | 78         |
|   | Barium           | ppm        | ASTM D5185m            |           | 1           | 0           | 0          |
|   | Molybdenum       | ppm        | ASTM D5185m            |           | 21          | 40          | 32         |
|   | Manganese        | ppm        | ASTM D5185m            |           | <1          | <1          | <1         |
|   | Magnesium        | ppm        | ASTM D5185m            |           | 196         | 423         | 504        |
|   | <b>•</b> • •     |            | ACTM DE10Em            |           | 2120        | 1848        | 1804       |
|   | Calcium          | ppm        | ASTM D5185m            |           |             |             |            |
|   | Phosphorus       | ppm        | ASTM D5185m            |           | 948         | 906         | 981        |
|   |                  |            |                        |           |             |             |            |

Oxidation

Visc @ 100°C cSt

14.3

7.6

12.3

12.4

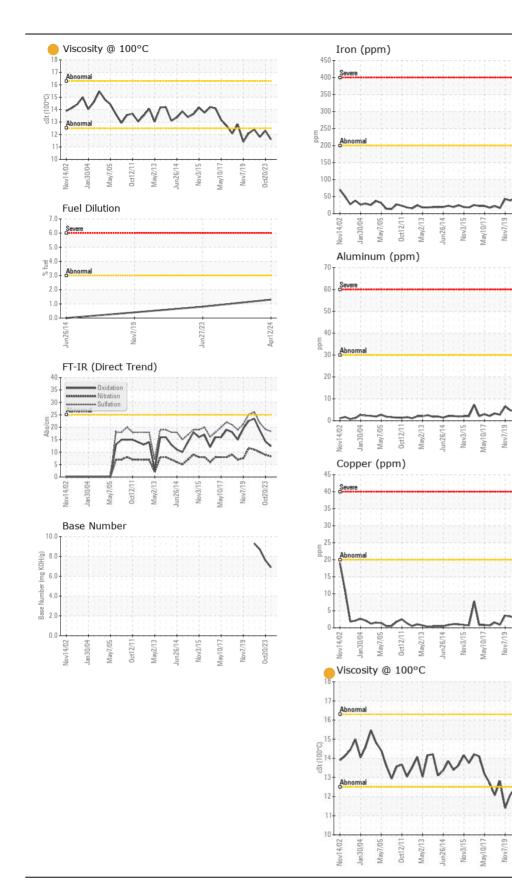
6.9

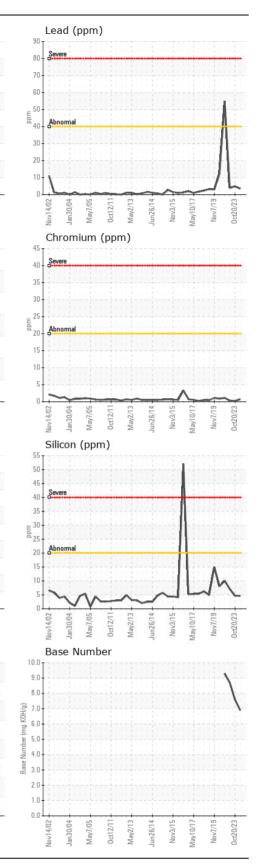
11.6

Abs/.1mm \*ASTM D7414 >25

ASTM D445

Base Number (BN) mg KOH/g ASTM D2896





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 DYER QUARRY Sample No. : VCP446445 Received P.O. BOX 188, 1275 ROCK HOLLOW ROAD : 26 Apr 2024 : 06161269 Lab Number Tested **BIRDSBORO, PA** : 02 May 2024 : 02 May 2024 - Jonathan Hester US 19508 Unique Number : 10996692 Diagnosed Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: MATT MCCLELLAND Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. matt.mcclelland@dyerquarry.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (610)582-2304

Contact/Location: MATT MCCLELLAND - DYEBIR

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