



# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |



Area  
**[MH-3]**  
Machine Id  
**CATERPILLAR 345C MH MH3 (S/N 0345CVM2R00185)**  
Component  
**Diesel Engine**  
Fluid  
**DURALENE Dura-Max 15W40 (8 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>DC0028666</b>   | DC0022353   | DC0019145   |
| Sample Date    |     | Client Info |           | <b>25 Jan 2024</b> | 17 Apr 2023 | 18 Apr 2022 |
| Machine Age    | hrs | Client Info |           | <b>24188</b>       | 23594       | 22272       |
| Oil Age        | hrs | Client Info |           | <b>594</b>         | 650         | 500         |
| Filter Age     | hrs | Client Info |           | <b>594</b>         | 650         | 500         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>38</b>    | 47   | 36   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>0</b>     | <1   | 1    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>2</b>     | 1    | 2    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>9</b>     | 6    | 6    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>8</b>     | 9    | 181  |
| Tin          | ppm    | ASTM D5185m | >15  | <b>1</b>     | 1    | 1    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

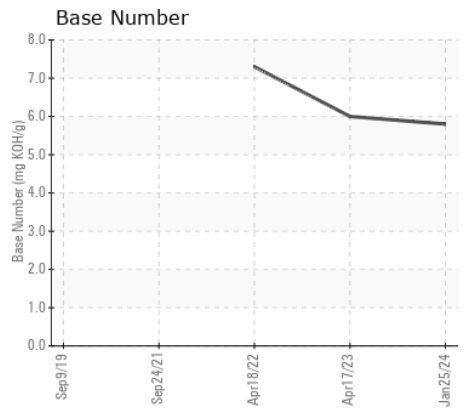
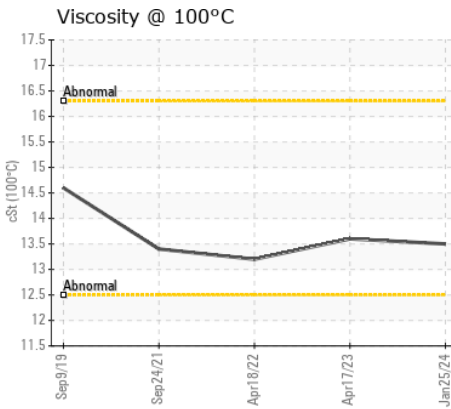
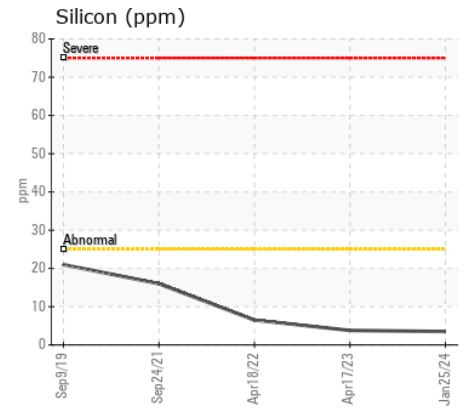
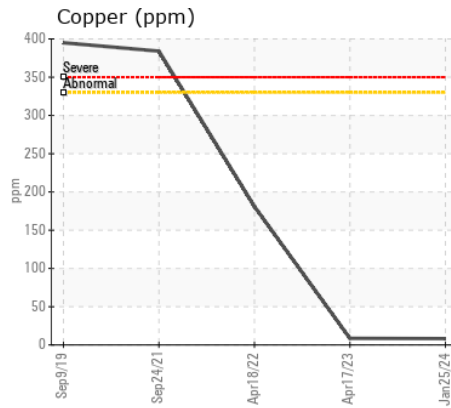
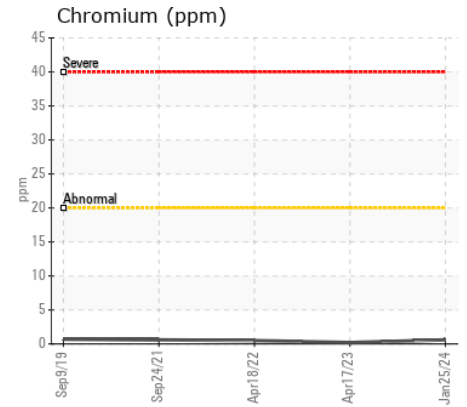
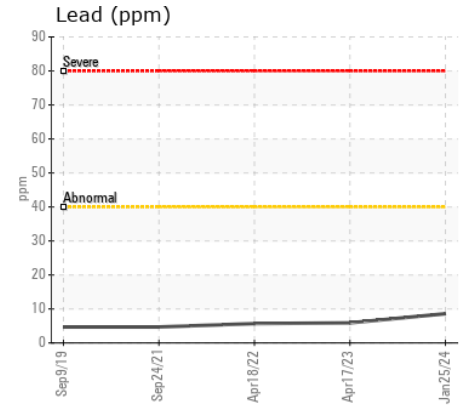
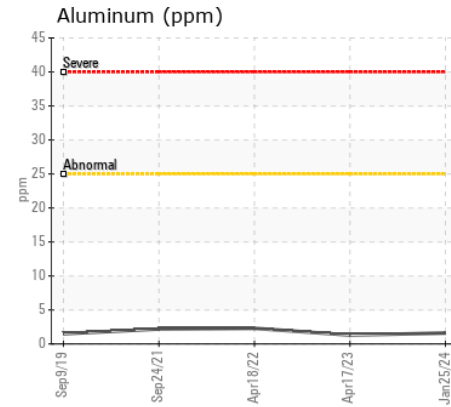
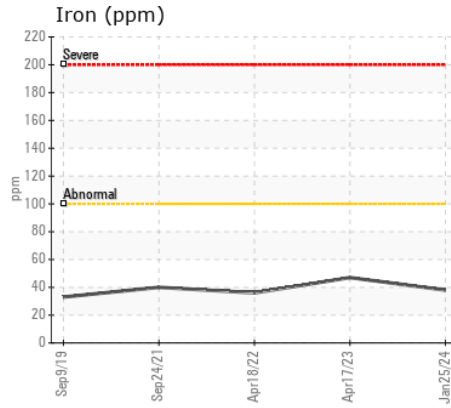
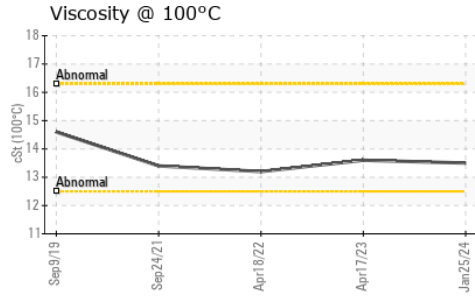
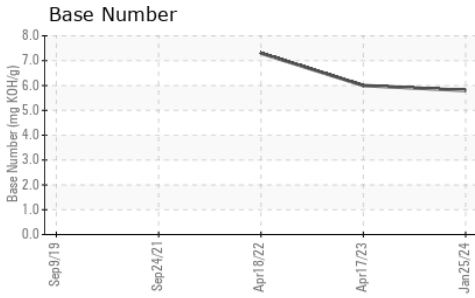
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>4</b>       | 4     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>4</b>       | 3     | <1    |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.6</b>     | 0.6   | 0.7   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.3</b>     | 10.0  | 9.9   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>22.1</b>    | 23.7  | 22.2  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |     |              |      |      |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>26</b>    | 24   | 6    |
| Boron            | ppm      | ASTM D5185m |     | <b>4</b>     | <1   | 12   |
| Barium           | ppm      | ASTM D5185m |     | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>4</b>     | 4    | 8    |
| Manganese        | ppm      | ASTM D5185m |     | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |     | <b>40</b>    | 43   | 89   |
| Calcium          | ppm      | ASTM D5185m |     | <b>2404</b>  | 2615 | 2515 |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>957</b>   | 916  | 916  |
| Zinc             | ppm      | ASTM D5185m |     | <b>1137</b>  | 1190 | 1174 |
| Sulfur           | ppm      | ASTM D5185m |     | <b>3985</b>  | 4418 | 3037 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>15.3</b>  | 17.3 | 16.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>5.8</b>   | 6.0  | 7.3  |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>13.5</b>  | 13.6 | 13.2 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0028666 **Received** : 26 Feb 2024  
**Lab Number** : 06100672 **Tested** : 27 Feb 2024  
**Unique Number** : 10898902 **Diagnosed** : 27 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONSERVIT INC.**  
 PO BOX 1517  
 HAGERSTOWN, MD  
 US 21740  
 Contact: DON LONG

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)

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