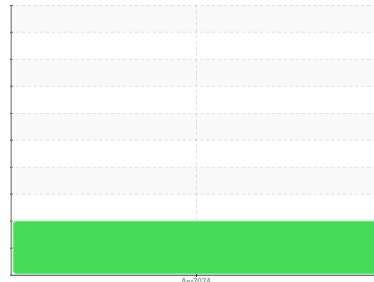




# FUEL REPORT

Sample Rating Trend



ISO



Machine Id

## KOHLER CARDINAL

Component

### Diesel Fuel

Fluid

#### No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

#### DIAGNOSIS

##### ▲ Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

##### Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

##### ▲ Contaminants

There is a high amount of particulates present in the fuel. The water content is negligible. No evidence of fuel present in the fuel.

##### Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number      | Client Info |             |            | <b>WC0901804</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>14 Apr 2024</b> | ---      | ---      |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ---      | ---      |


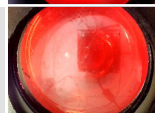
| PHYSICAL PROPERTIES |        | method      | limit/base | current     | history1 | history2 |
|---------------------|--------|-------------|------------|-------------|----------|----------|
| ASTM Color          | scalar | *ASTM D1500 |            | <b>L4.5</b> | ---      | ---      |
| Visc @ 40°C         | cSt    | ASTM D445   | 3.0        | <b>2.42</b> | ---      | ---      |

| SULFUR CONTENT |     | method      | limit/base | current   | history1 | history2 |
|----------------|-----|-------------|------------|-----------|----------|----------|
| Sulfur         | ppm | ASTM D5185m | 10         | <b>0</b>  | ---      | ---      |
| Sulfur (UVF)   | ppm | ASTM D5453  |            | <b>54</b> | ---      | ---      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | <1.0       | <b>0</b>     | ---      | ---      |
| Sodium       | ppm | ASTM D5185m | <0.1       | <b>&lt;1</b> | ---      | ---      |
| Potassium    | ppm | ASTM D5185m | <0.1       | <b>0</b>     | ---      | ---      |
| Water        | %   | ASTM D6304  | <0.05      | <b>0.003</b> | ---      | ---      |
| ppm Water    | ppm | ASTM D6304  | <500       | <b>27</b>    | ---      | ---      |
| % Gasoline   | %   | *In-House   | <0.50      | <b>0.0</b>   | ---      | ---      |
| % Biodiesel  | %   | *In-House   | <20.0      | <b>0.0</b>   | ---      | ---      |

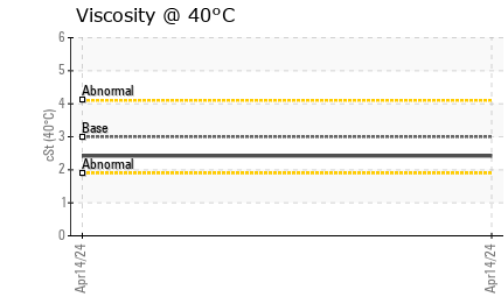
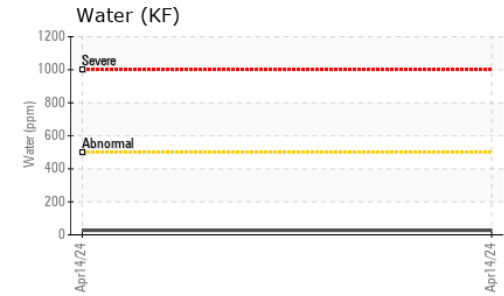
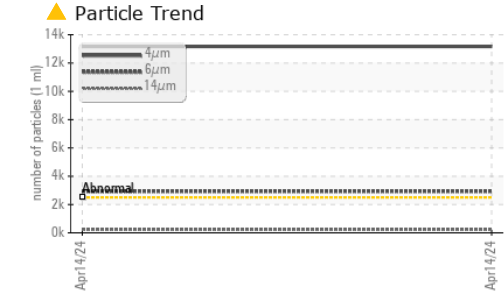
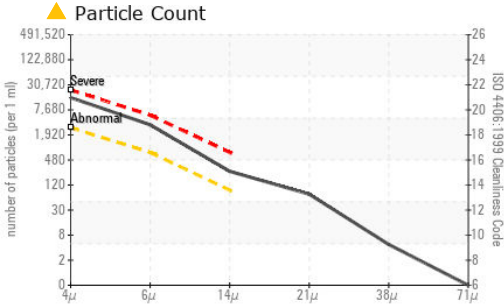
| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >2500      | <b>▲ 13168</b>    | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >640       | <b>▲ 2937</b>     | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>▲ 226</b>      | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>▲ 64</b>       | ---      | ---      |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>4</b>          | ---      | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>          | ---      | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >18/16/13  | <b>▲ 21/19/15</b> | ---      | ---      |

| HEAVY METALS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Aluminum     | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Nickel       | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Lead         | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Vanadium     | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Iron         | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Calcium      | ppm | ASTM D5185m | <0.1       | <b>1</b> | ---      | ---      |
| Magnesium    | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Phosphorus   | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |
| Zinc         | ppm | ASTM D5185m | <0.1       | <b>0</b> | ---      | ---      |

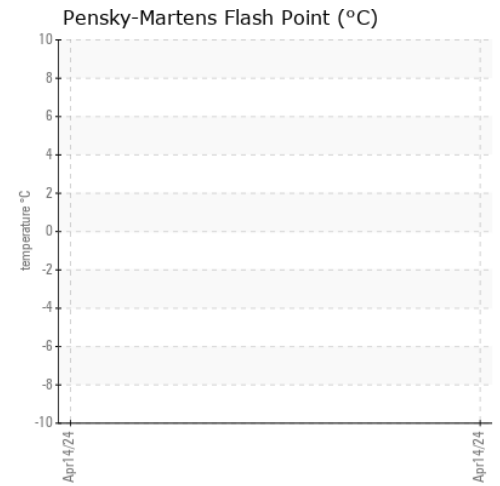
| SAMPLE IMAGES |  | method | limit/base | current   | history1 | history2 |
|---------------|--|--------|------------|---|----------|----------|
| Color         |  |        |            |  | no image | no image |
| Bottom        |  |        |            |  | no image | no image |



# FUEL REPORT



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0901804      **Received** : 15 Apr 2024  
**Lab Number** : 06149237      **Tested** : 19 Apr 2024  
**Unique Number** : 10979315      **Diagnosed** : 26 Apr 2024 - Angela Borella  
**Test Package** : DF-5 ( Additional Tests: Screen )

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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