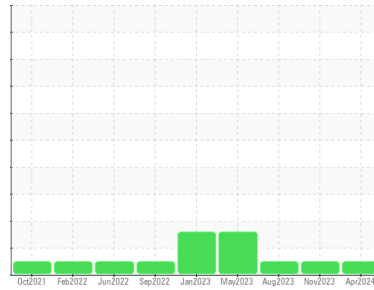


# OIL ANALYSIS REPORT

Area  
**MIXERS**  
 Machine Id  
**[MIXERS] M207**  
 Component  
**Diesel Engine**  
 Fluid  
**KENDALL 15W40 (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is no indication of any contamination in the oil.

**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.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>PCA0109793</b>  | LP0001118   | LP0000109   |
| Sample Date   | Client Info |             | <b>08 Apr 2024</b> | 22 Nov 2023 | 15 Aug 2023 |
| Machine Age   | hrs         | Client Info | <b>15275</b>       | 14761       | 14227       |
| Oil Age       | hrs         | Client Info | <b>600</b>         | 600         | 600         |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Changed     | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| 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      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >100 | <b>7</b>     | 9        | 9        |
| Chromium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | <1       | <1       |
| Nickel   | ppm    | ASTM D5185m >4   | <b>&lt;1</b> | <1       | 0        |
| Titanium | ppm    | ASTM D5185m      | <b>2</b>     | 1        | 1        |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >20  | <b>2</b>     | 2        | 2        |
| Lead     | ppm    | ASTM D5185m >40  | <b>1</b>     | 1        | 1        |
| Copper   | ppm    | ASTM D5185m >330 | <b>1</b>     | 2        | 2        |
| Tin      | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | <1       |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 6.3  | <b>55</b>    | 38       | 35       |
| Barium     | ppm    | ASTM D5185m 0.6  | <b>0</b>     | 0        | 2        |
| Molybdenum | ppm    | ASTM D5185m 0.4  | <b>100</b>   | 86       | 90       |
| Manganese  | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 277  | <b>122</b>   | 151      | 225      |
| Calcium    | ppm    | ASTM D5185m 1514 | <b>2331</b>  | 2075     | 2147     |
| Phosphorus | ppm    | ASTM D5185m 634  | <b>1047</b>  | 879      | 1057     |
| Zinc       | ppm    | ASTM D5185m 743  | <b>1260</b>  | 1217     | 1291     |
| Sulfur     | ppm    | ASTM D5185m 2592 | <b>3677</b>  | 4012     | 3877     |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>10</b> | 13       | 19       |
| Sodium    | ppm    | ASTM D5185m     | <b>1</b>  | 4        | 6        |
| Potassium | ppm    | ASTM D5185m >20 | <b>2</b>  | 2        | 2        |

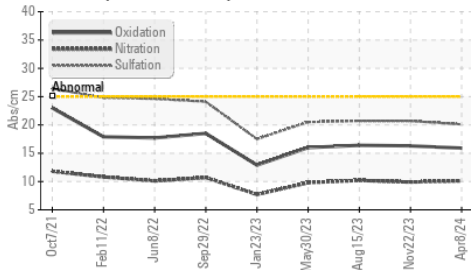
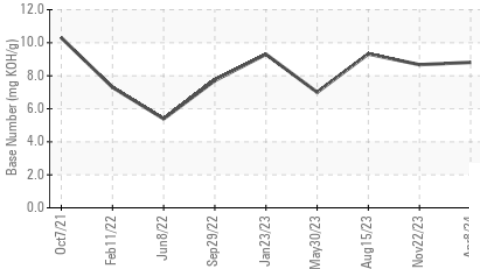
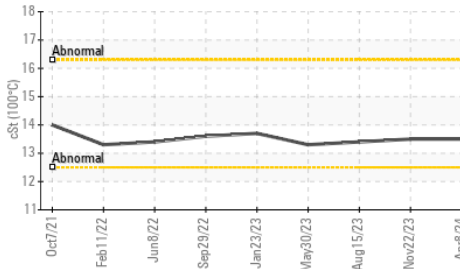
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.3</b>  | 0.4      | 0.4      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>10.1</b> | 9.9      | 10.2     |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>20.1</b> | 20.7     | 20.7     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>15.9</b> | 16.3     | 16.4     |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>8.81</b> | 8.67     | 9.32     |

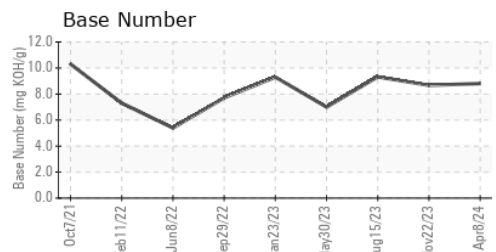
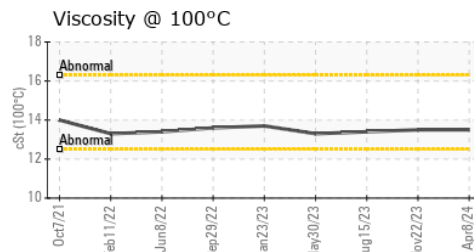
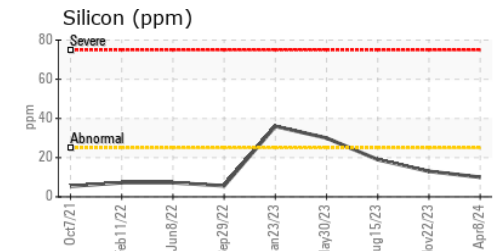
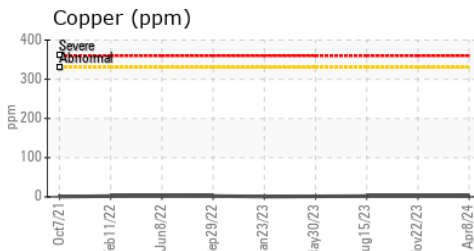
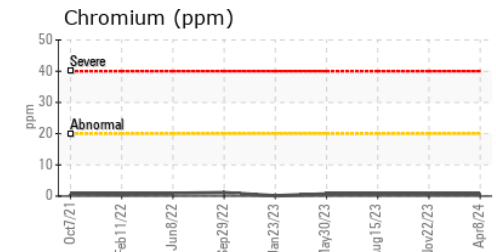
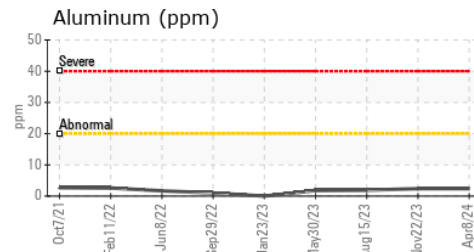
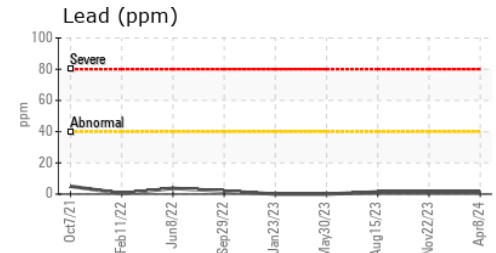
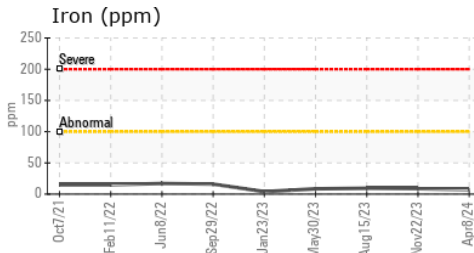
# OIL ANALYSIS REPORT

**FT-IR (Direct Trend)**

**Base Number**

**Viscosity @ 100°C**


| 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     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current     | history1 | history2 |
|------------------|--------|------------|-------------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | <b>13.5</b> | 13.5     | 13.4     |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109793      **Received** : 12 Apr 2024  
**Lab Number** : **06148169**      **Tested** : 15 Apr 2024  
**Unique Number** : 10978247      **Diagnosed** : 16 Apr 2024 - Sean Felton  
**Test Package** : MOB 2

**CONSTRUCTION SERVICES**  
 2420 BOSTON RD  
 WILBRAHAM, MA  
 US 01095  
 Contact: Michael Dupuis  
 mdupuis@cs-ma.us  
 T: (413)733-6331  
 F:

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)