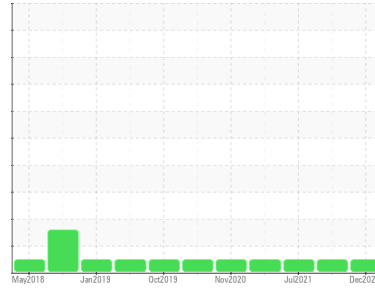




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**6629**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (16 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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>WC06027471</b>  | WC0694234   | WC0558994   |
| Sample Date   | Client Info |             | <b>06 Dec 2023</b> | 28 Sep 2022 | 22 Jul 2021 |
| Machine Age   | mls         | Client Info | <b>0</b>           | 138711      | 0           |
| Oil Age       | mls         | Client Info | <b>0</b>           | 450         | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| 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>4</b>     | 10       | 16       |
| Chromium | ppm    | ASTM D5185m >20  | <b>0</b>     | <1       | <1       |
| Nickel   | ppm    | ASTM D5185m >4   | <b>0</b>     | 0        | 0        |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >20  | <b>1</b>     | <1       | 0        |
| Lead     | ppm    | ASTM D5185m >40  | <b>0</b>     | 2        | 2        |
| Copper   | ppm    | ASTM D5185m >330 | <b>&lt;1</b> | <1       | 2        |
| Tin      | ppm    | ASTM D5185m >15  | <b>0</b>     | <1       | <1       |
| Antimony | ppm    | ASTM D5185m      | <b>---</b>   | ---      | 0        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 250  | <b>1</b>     | 6        | 8        |
| Barium     | ppm    | ASTM D5185m 10   | <b>0</b>     | <1       | 0        |
| Molybdenum | ppm    | ASTM D5185m 100  | <b>56</b>    | 61       | 58       |
| Manganese  | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 450  | <b>940</b>   | 915      | 880      |
| Calcium    | ppm    | ASTM D5185m 3000 | <b>1092</b>  | 1206     | 1104     |
| Phosphorus | ppm    | ASTM D5185m 1150 | <b>1039</b>  | 990      | 959      |
| Zinc       | ppm    | ASTM D5185m 1350 | <b>1242</b>  | 1249     | 1138     |
| Sulfur     | ppm    | ASTM D5185m 4250 | <b>3064</b>  | 3029     | 2468     |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>4</b>     | 4        | 4        |
| Sodium    | ppm    | ASTM D5185m >158 | <b>3</b>     | 0        | 2        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 2        | <1       |

## INFRA-RED

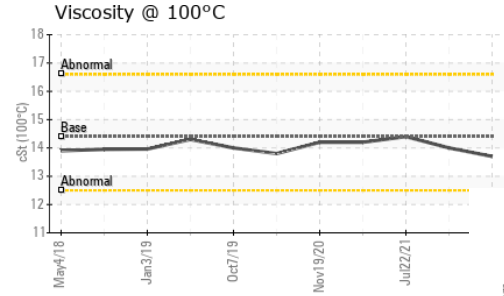
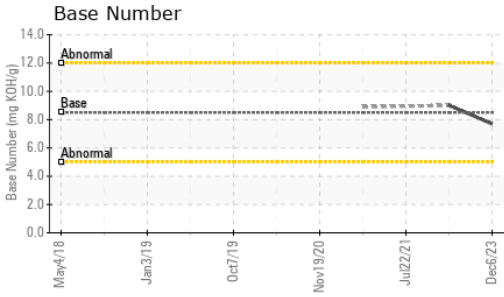
|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.4</b>  | 0.4      | 0.4      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>8.4</b>  | 10.1     | 8.9      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>19.6</b> | 22.6     | 21.5     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>15.2</b> | 18.4     | 16.6     |
| Base Number (BN) | mg KOH/g | ASTM D2896 8.5  | <b>7.7</b>  | 9.0      | ---      |



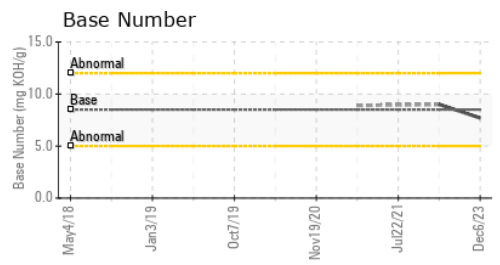
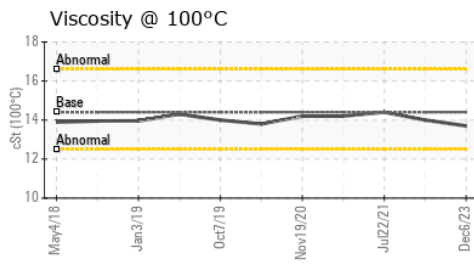
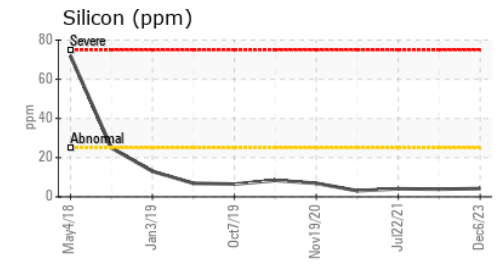
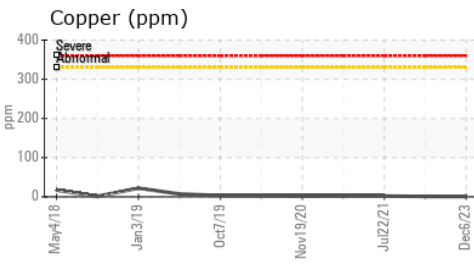
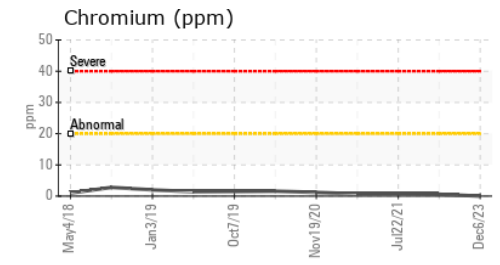
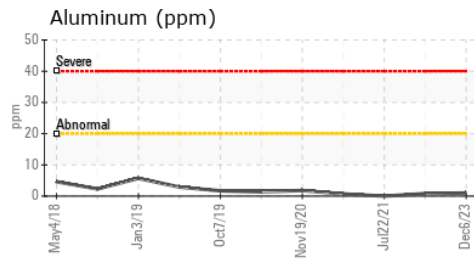
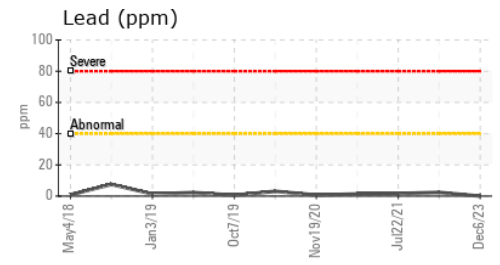
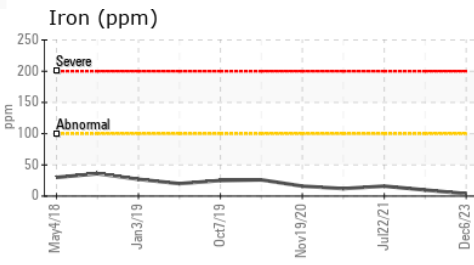
# OIL ANALYSIS REPORT



| 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  | 14.4    | 13.7     | 14.0     |

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06027471      **Received** : 07 Dec 2023  
**Lab Number** : 06027471      **Diagnosed** : 08 Dec 2023  
**Unique Number** : 10777262      **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**INTERSTATE WASTE-CHESTER**  
 89 BLACK MEADOW RD  
 CHESTER, NY  
 US 10918  
 Contact: ROB CLARKE  
 rclarke@interstatewaste.com  
 T:  
 F: (845)572-3301

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)