



# OIL ANALYSIS REPORT

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



Machine Id  
**MACK PINNACLE 64T ZT2213 (S/N 1M1PN4GY4KM001196)**  
Component  
**3 Axle**  
Fluid  
**DURALENE Fleet Gear Syn 75W90 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>DC0032540</b>   | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>12 Jan 2024</b> | ---      | ---      |
| Machine Age    | mls | Client Info |           | <b>196066</b>      | ---      | ---      |
| Oil Age        | mls | Client Info |           | <b>98000</b>       | ---      | ---      |
| Filter Age     | mls | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | ---      | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >870 | <b>92</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >20  | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m | >4   | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >9   | <b>1</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >25  | <b>0</b>     | --- | --- |
| Copper       | ppm    | ASTM D5185m | >60  | <b>1</b>     | --- | --- |
| Tin          | ppm    | ASTM D5185m | >5   | <b>0</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

## CONTAMINATION

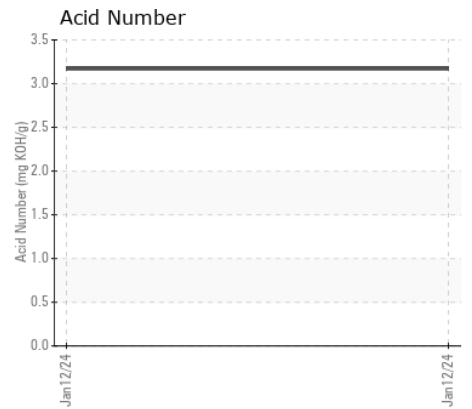
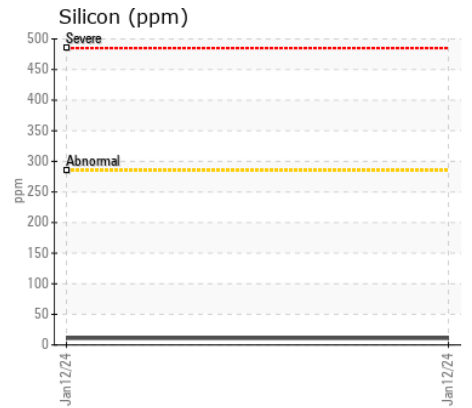
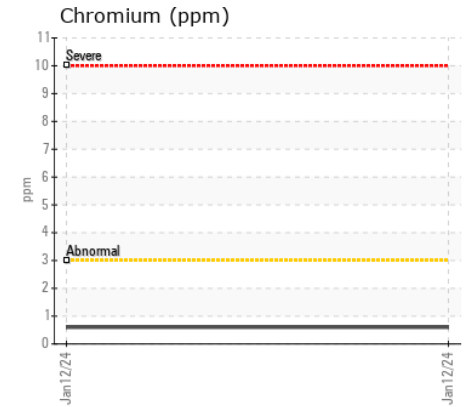
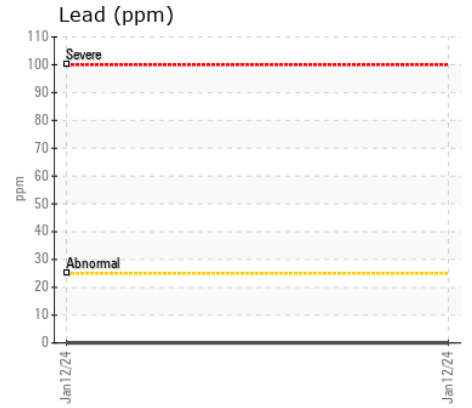
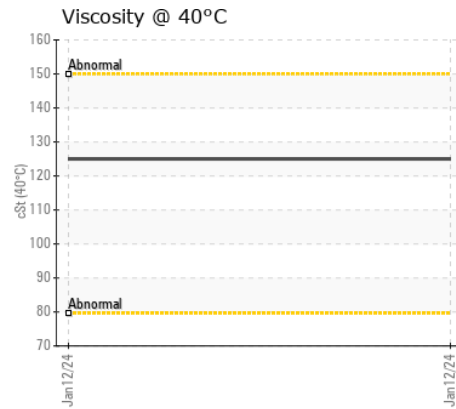
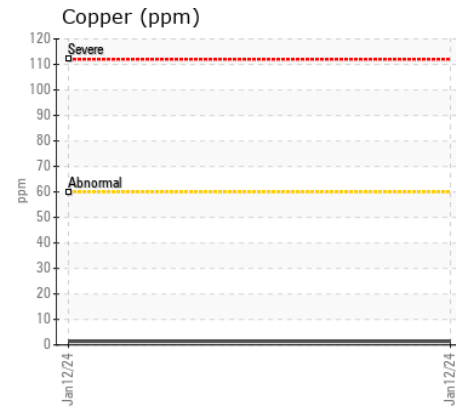
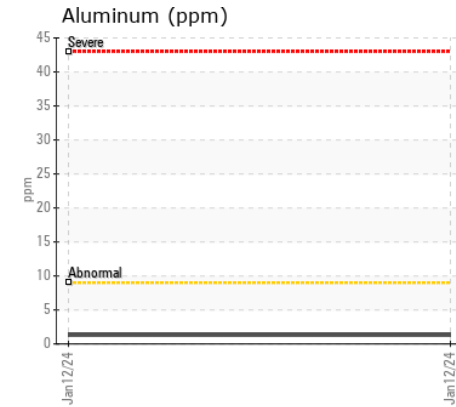
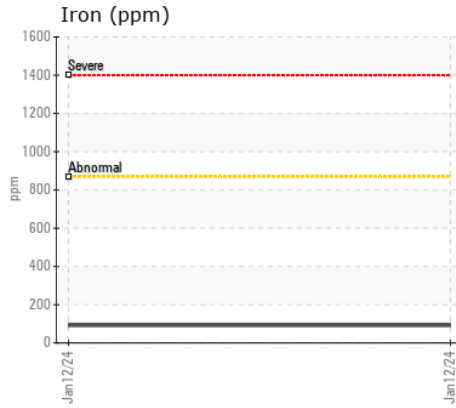
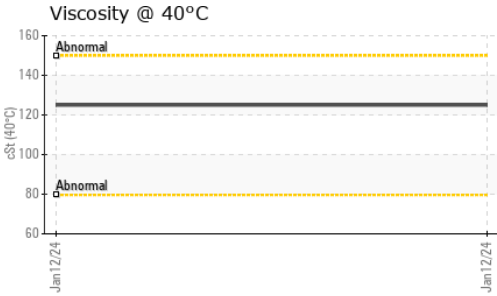
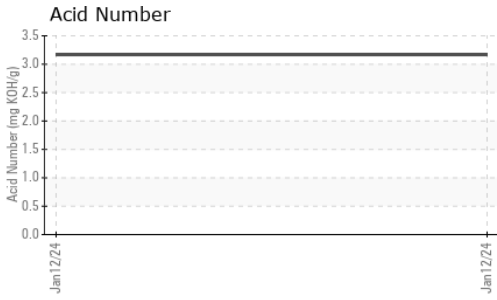
There is no indication of any contamination in the oil.

|                  |        |             |       |              |     |     |
|------------------|--------|-------------|-------|--------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m | >285  | <b>11</b>    | --- | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>0</b>     | --- | --- |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | --- | --- |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | --- | --- |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | --- | --- |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | --- | --- |
| Emulsified Water | scalar | *Visual     | >0.2  | <b>NEG</b>   | --- | --- |

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |  |              |     |     |
|------------------|----------|-------------|--|--------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |  | <b>&lt;1</b> | --- | --- |
| Boron            | ppm      | ASTM D5185m |  | <b>233</b>   | --- | --- |
| Barium           | ppm      | ASTM D5185m |  | <b>0</b>     | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |  | <b>0</b>     | --- | --- |
| Manganese        | ppm      | ASTM D5185m |  | <b>4</b>     | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |  | <b>2</b>     | --- | --- |
| Calcium          | ppm      | ASTM D5185m |  | <b>28</b>    | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |  | <b>1648</b>  | --- | --- |
| Zinc             | ppm      | ASTM D5185m |  | <b>14</b>    | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |  | <b>22062</b> | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |  | <b>3.17</b>  | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   |  | <b>125</b>   | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0032540  
**Lab Number** : 06062142  
**Unique Number** : 10833524  
**Test Package** : MOB 2  
**Recieved** : 16 Jan 2024  
**Diagnosed** : 18 Jan 2024  
**Diagnostician** : Don Baldrige

**COMER CONSTRUCTION**  
 2100 SLADE LANE  
 FOREST HILL, MD  
 US 21050  
 Contact: DONALD FOX  
 dfox@comerconstruction.com  
 T: (443)269-1379  
 F: (410)638-0289

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)