



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

Machine Id  
**5050**  
 Component  
**Left Final Drive**  
 Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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>JR0195137</b>   | JR0184913   | ---      |
| Sample Date    |     | Client Info |           | <b>09 Jan 2024</b> | 18 Sep 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>999</b>         | 537         | ---      |
| Oil Age        | hrs | Client Info |           | <b>500</b>         | 500         | ---      |
| Filter Age     | hrs | Client Info |           | <b>500</b>         | 500         | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | Changed     | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | NORMAL      | ---      |

### WEAR

The chromium level is abnormal. All other metal levels are typical for a new component breaking in.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| PQ           |        | ASTM D8184  |      | <b>20</b>    | 26   | --- |
| Iron         | ppm    | ASTM D5185m | >500 | <b>136</b>   | 116  | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>▲ 23</b>  | 13   | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>1</b>     | 1    | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>2</b>     | 1    | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>▲ 31</b>  | 13   | --- |
| Lead         | ppm    | ASTM D5185m | >25  | <b>0</b>     | 1    | --- |
| Copper       | ppm    | ASTM D5185m | >50  | <b>&lt;1</b> | 1    | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <b>0</b>     | 0    | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

### CONTAMINATION

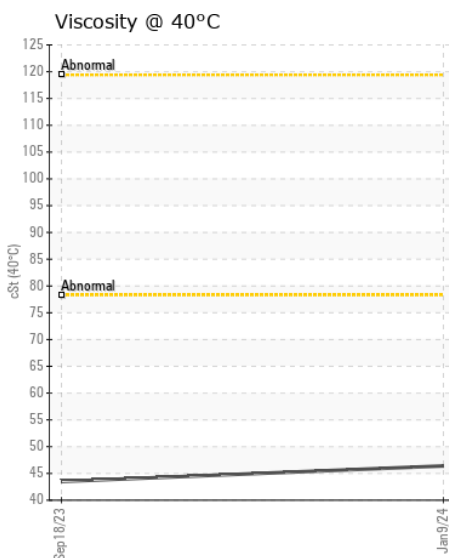
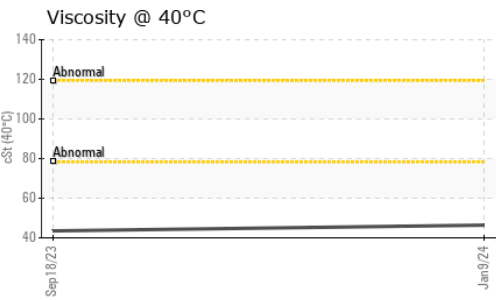
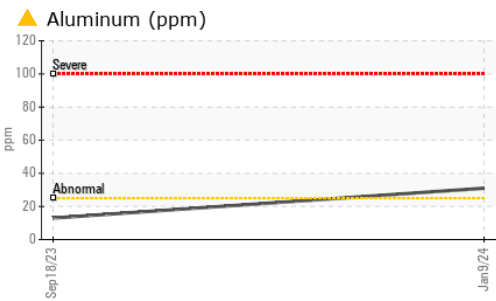
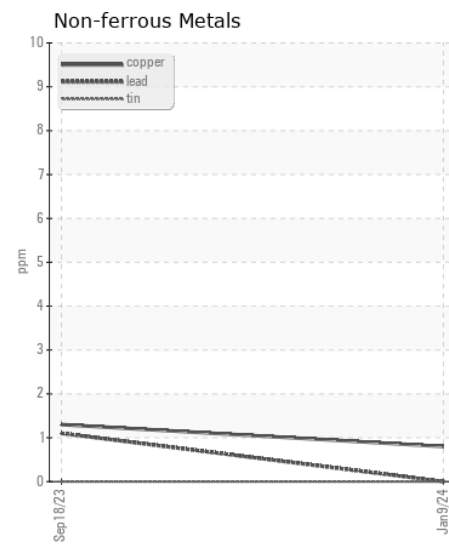
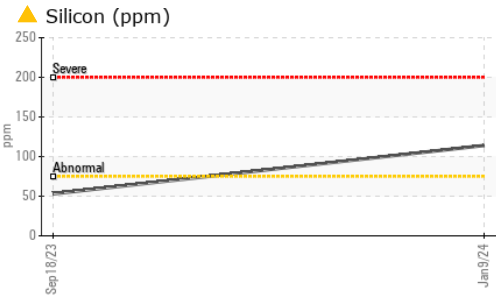
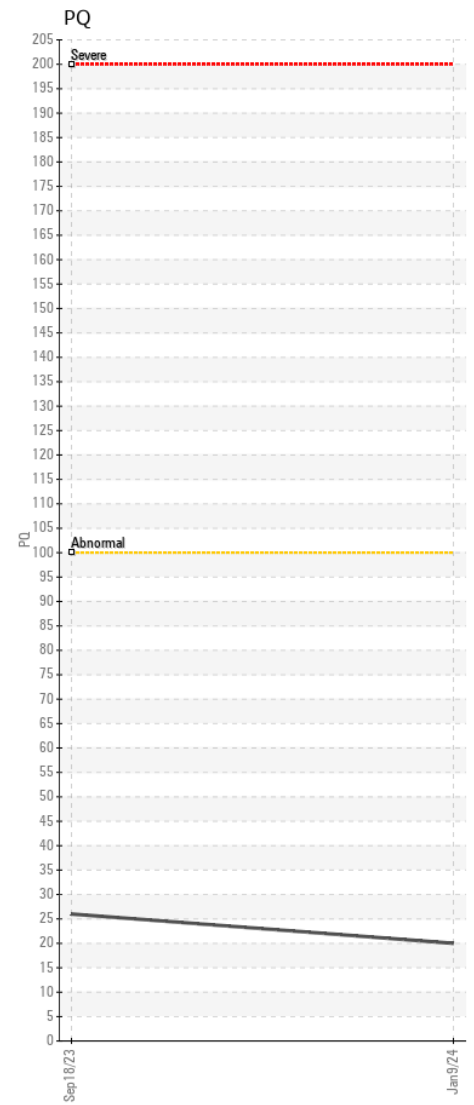
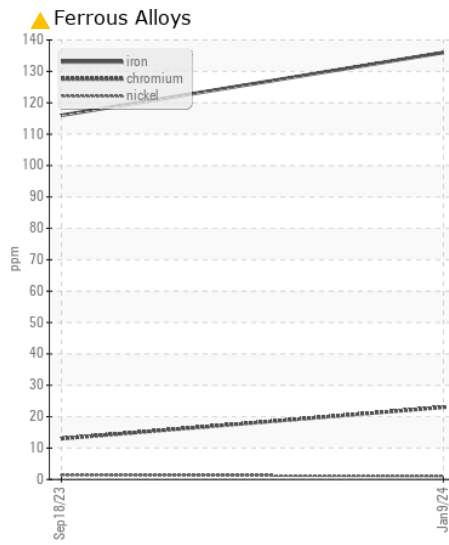
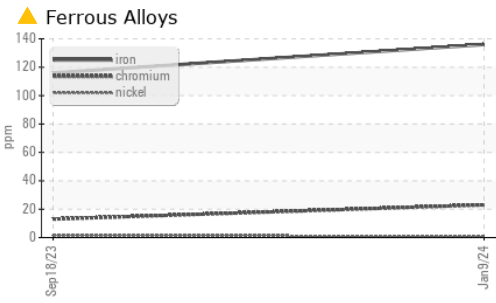
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

|                  |        |             |       |              |       |     |
|------------------|--------|-------------|-------|--------------|-------|-----|
| Silicon          | ppm    | ASTM D5185m | >75   | <b>▲ 114</b> | 53    | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>9</b>     | 6     | --- |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | --- |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | LIGHT | --- |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Emulsified Water | scalar | *Visual     | >0.2  | <b>NEG</b>   | NEG   | --- |

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|             |     |             |  |              |       |     |
|-------------|-----|-------------|--|--------------|-------|-----|
| Sodium      | ppm | ASTM D5185m |  | <b>8</b>     | 8     | --- |
| Boron       | ppm | ASTM D5185m |  | <b>&lt;1</b> | 4     | --- |
| Barium      | ppm | ASTM D5185m |  | <b>0</b>     | 0     | --- |
| Molybdenum  | ppm | ASTM D5185m |  | <b>2</b>     | 2     | --- |
| Manganese   | ppm | ASTM D5185m |  | <b>2</b>     | 4     | --- |
| Magnesium   | ppm | ASTM D5185m |  | <b>9</b>     | 3     | --- |
| Calcium     | ppm | ASTM D5185m |  | <b>219</b>   | 80    | --- |
| Phosphorus  | ppm | ASTM D5185m |  | <b>875</b>   | 265   | --- |
| Zinc        | ppm | ASTM D5185m |  | <b>1193</b>  | 470   | --- |
| Sulfur      | ppm | ASTM D5185m |  | <b>4439</b>  | 10991 | --- |
| Visc @ 40°C | cSt | ASTM D445   |  | <b>46.4</b>  | 43.5  | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0195137 **Received** : 17 Jan 2024  
**Lab Number** : 06063895 **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10835277 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**PATRIOT DEVELOPMENT CORP**  
 22721 LADBROOK DRIVE STE 120  
 STERLING, VA  
 US 20166  
 Contact: ROBERT MOSS  
 robert.moss@patriotdev.net

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)

T:  
F: