

# WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

#### Machine Id **1FF350GXTMF815040** Component Left Final Drive Fluid

GEAR OIL LS 80W90 (--- GAL)

## RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL LS 80W90. Please confirm.

Please specify the component make and model with your next sample.

### **WEAR**

All component wear rates are normal.

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### CONTAMINATION

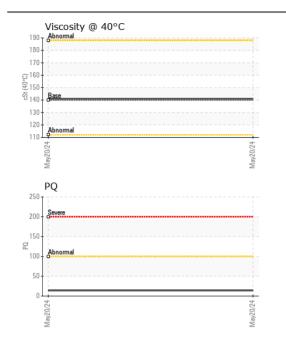
There is no indication of any contamination in the oil.

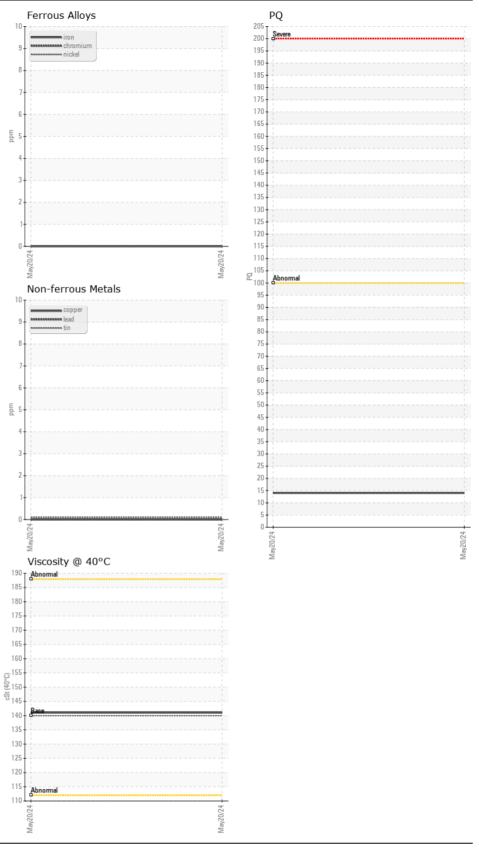
### **FLUID CONDITION**

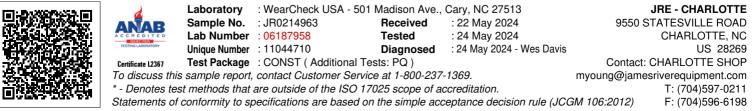
The condition of the oil is acceptable for the time in service.

| Test                                                                                                                                                                                   | UOM                                                                                                           | Method                                                                                                                                                                                                  | Limit/Abn                                                                                                                                                                                           | Current                                                                                                                                               | History1 | History2     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|
| Sample Number                                                                                                                                                                          |                                                                                                               | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | JR0214963                                                                                                                                             |          |              |
| Sample Date                                                                                                                                                                            |                                                                                                               | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | 20 May 2024                                                                                                                                           |          |              |
| Machine Age                                                                                                                                                                            | hrs                                                                                                           | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | 4382                                                                                                                                                  |          |              |
| Oil Age                                                                                                                                                                                | hrs                                                                                                           | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | 4382                                                                                                                                                  |          |              |
| Filter Age                                                                                                                                                                             | hrs                                                                                                           | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | 0                                                                                                                                                     |          |              |
| Oil Changed                                                                                                                                                                            |                                                                                                               | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | Not Changd                                                                                                                                            |          |              |
| Filter Changed                                                                                                                                                                         |                                                                                                               | Client Info                                                                                                                                                                                             |                                                                                                                                                                                                     | N/A                                                                                                                                                   |          |              |
| Sample Status                                                                                                                                                                          |                                                                                                               |                                                                                                                                                                                                         |                                                                                                                                                                                                     | NORMAL                                                                                                                                                |          |              |
| PQ                                                                                                                                                                                     |                                                                                                               | ASTM D8184                                                                                                                                                                                              |                                                                                                                                                                                                     | 14                                                                                                                                                    |          |              |
| Iron                                                                                                                                                                                   | nnm                                                                                                           | ASTM D0104<br>ASTM D5185m                                                                                                                                                                               | >500                                                                                                                                                                                                | 0                                                                                                                                                     |          |              |
| Chromium                                                                                                                                                                               | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >10                                                                                                                                                                                                 | 0                                                                                                                                                     |          |              |
| Nickel                                                                                                                                                                                 | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             |                                                                                                                                                                                                     | 0                                                                                                                                                     |          |              |
| Titanium                                                                                                                                                                               | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >10                                                                                                                                                                                                 | 0                                                                                                                                                     |          |              |
| Silver                                                                                                                                                                                 | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             |                                                                                                                                                                                                     | 0                                                                                                                                                     |          |              |
| Aluminum                                                                                                                                                                               | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >25                                                                                                                                                                                                 | 0                                                                                                                                                     |          |              |
| Lead                                                                                                                                                                                   | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >25                                                                                                                                                                                                 | 0                                                                                                                                                     |          |              |
|                                                                                                                                                                                        | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             |                                                                                                                                                                                                     | 0                                                                                                                                                     |          |              |
| Copper                                                                                                                                                                                 | ppm                                                                                                           |                                                                                                                                                                                                         | >50                                                                                                                                                                                                 | <1                                                                                                                                                    |          |              |
| Tin                                                                                                                                                                                    | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >10                                                                                                                                                                                                 | <1<br>0                                                                                                                                               |          |              |
| Vanadium                                                                                                                                                                               | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             |                                                                                                                                                                                                     | -                                                                                                                                                     |          |              |
| White Metal<br>Yellow Metal                                                                                                                                                            | scalar<br>scalar                                                                                              | *Visual                                                                                                                                                                                                 | NONE                                                                                                                                                                                                | NONE                                                                                                                                                  |          |              |
|                                                                                                                                                                                        |                                                                                                               |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                       |          |              |
|                                                                                                                                                                                        |                                                                                                               | *Visual                                                                                                                                                                                                 | NONE                                                                                                                                                                                                | NONE                                                                                                                                                  |          |              |
| Silicon                                                                                                                                                                                | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >75                                                                                                                                                                                                 | NONE<br>2                                                                                                                                             |          |              |
|                                                                                                                                                                                        |                                                                                                               |                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                       |          |              |
| Silicon                                                                                                                                                                                | ppm                                                                                                           | ASTM D5185m                                                                                                                                                                                             | >75                                                                                                                                                                                                 | 2                                                                                                                                                     |          |              |
| Silicon<br>Potassium                                                                                                                                                                   | ppm                                                                                                           | ASTM D5185m<br>ASTM D5185m                                                                                                                                                                              | >75<br>>20                                                                                                                                                                                          | 2<br>0                                                                                                                                                |          |              |
| Silicon<br>Potassium<br>Water                                                                                                                                                          | ppm<br>ppm                                                                                                    | ASTM D5185m<br>ASTM D5185m<br>WC Method                                                                                                                                                                 | >75<br>>20<br>>0.2                                                                                                                                                                                  | 2<br>0<br>NEG                                                                                                                                         |          |              |
| Silicon<br>Potassium<br>Water<br>Silt                                                                                                                                                  | ppm<br>ppm<br>scalar                                                                                          | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual                                                                                                                                                      | >75<br>>20<br>>0.2<br>NONE                                                                                                                                                                          | 2<br>0<br>NEG<br>NONE                                                                                                                                 |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris                                                                                                                                        | ppm<br>ppm<br>scalar<br>scalar                                                                                | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual                                                                                                                                           | >75<br>>20<br>>0.2<br>NONE<br>NONE                                                                                                                                                                  | 2<br>0<br>NEG<br>NONE<br>NONE                                                                                                                         |          | <br><br>     |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt                                                                                                                           | ppm<br>ppm<br>scalar<br>scalar<br>scalar                                                                      | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual                                                                                                                                | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NONE                                                                                                                                                          | 2<br>0<br>NEG<br>NONE<br>NONE<br>NONE                                                                                                                 | <br><br> | <br><br>     |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance                                                                                                             | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar                                                            | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual                                                                                                                     | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NONE<br>NORML                                                                                                                                                 | 2<br>0<br>NEG<br>NONE<br>NONE<br>NONE<br>NORML                                                                                                        | <br><br> | <br><br><br> |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water                                                                                 | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar                                        | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual                                                                                               | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NONE<br>NORML<br>NORML                                                                                                                                        | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORE<br>NORML<br>NEG                                                                                                 |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium                                                                       | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar                                        | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m                                                                                           | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2                                                                                                                                        | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0                                                                                           |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron                                                              | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>gpm<br>ppm                          | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m                                                                                | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NONE<br>NORML<br>NORML                                                                                                                                        | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0                                                                                      |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium                                                    | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                          | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m                                                                 | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2                                                                                                                                        | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0                                                                                      |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum                                      | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                          | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                                                             | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2                                                                                                                                        | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0                                                                            |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese                         | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>gpm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                                              | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>>0.2                                                                                                                                                 | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                                             |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium            | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                               | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>>0.2<br>150                                                                                                                                          | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2<br>150                                                                                                                                 | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2<br>150<br>150<br>10<br>70<br>2000                                                                                                      | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | <ul> <li>&gt;75</li> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>&gt;0.2</li> <li>150</li> <li>150</li> <li>10</li> <li>70</li> <li>2000</li> <li>50</li> </ul> | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |          |              |
| Silicon<br>Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium | ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | >75<br>>20<br>>0.2<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.2<br>150<br>150<br>10<br>70<br>2000                                                                                                      | 2<br>0<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |          |              |

Submitted By: Mike Young - CHARLOTTE SHOP







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