



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**WESTERN STAR 4900 H0-03**  
 Component  
**Front Differential**  
 Fluid  
**MOBIL 75W90 (--- LTR)**

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

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number      | Client Info |             |            | <b>WC0901128</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>26 Mar 2024</b> | ---      | ---      |
| Machine Age        | yrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Age            | yrs         | Client Info |            | <b>1</b>           | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | ---      | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >.2        | <b>NEG</b> | ---      | ---      |

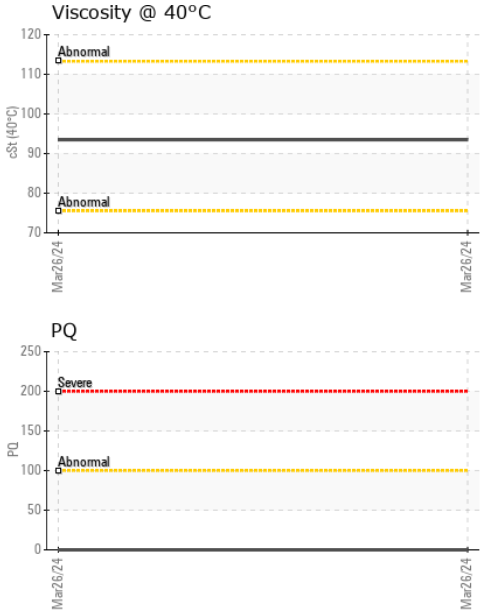
| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| PQ          |     | ASTM D8184*   |            | <b>0</b>     | ---      | ---      |
| Iron        | ppm | ASTM D5185(m) | >500       | <b>60</b>    | ---      | ---      |
| Chromium    | ppm | ASTM D5185(m) | >10        | <b>0</b>     | ---      | ---      |
| Nickel      | ppm | ASTM D5185(m) | >10        | <b>0</b>     | ---      | ---      |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Silver      | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Aluminum    | ppm | ASTM D5185(m) | >25        | <b>0</b>     | ---      | ---      |
| Lead        | ppm | ASTM D5185(m) | >25        | <b>&lt;1</b> | ---      | ---      |
| Copper      | ppm | ASTM D5185(m) | >100       | <b>45</b>    | ---      | ---      |
| Tin         | ppm | ASTM D5185(m) | >10        | <b>&lt;1</b> | ---      | ---      |
| Antimony    | ppm | ASTM D5185(m) | >5         | <b>0</b>     | ---      | ---      |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |

| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) |            | <b>282</b>   | ---      | ---      |
| Barium     | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm | ASTM D5185(m) |            | <b>1</b>     | ---      | ---      |
| Magnesium  | ppm | ASTM D5185(m) |            | <b>9</b>     | ---      | ---      |
| Calcium    | ppm | ASTM D5185(m) |            | <b>46</b>    | ---      | ---      |
| Phosphorus | ppm | ASTM D5185(m) |            | <b>1198</b>  | ---      | ---      |
| Zinc       | ppm | ASTM D5185(m) |            | <b>31</b>    | ---      | ---      |
| Sulfur     | ppm | ASTM D5185(m) |            | <b>19213</b> | ---      | ---      |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >75        | <b>15</b>    | ---      | ---      |
| Sodium       | ppm | ASTM D5185(m) |            | <b>1</b>     | ---      | ---      |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | ---      | ---      |



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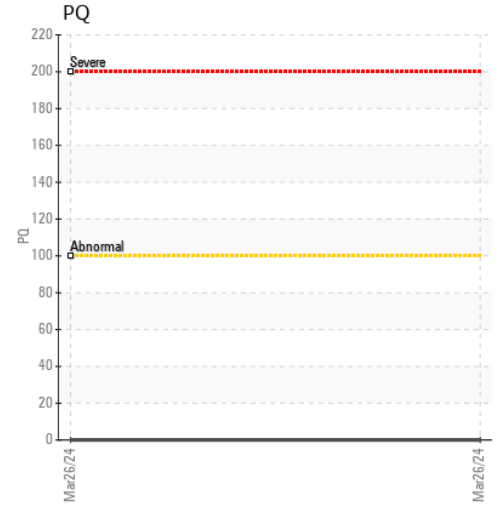
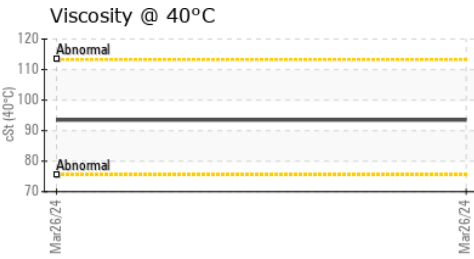
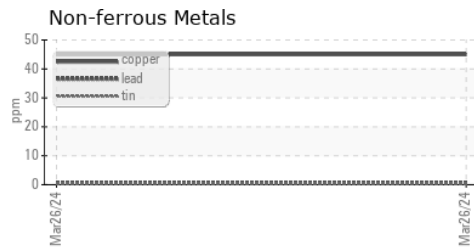
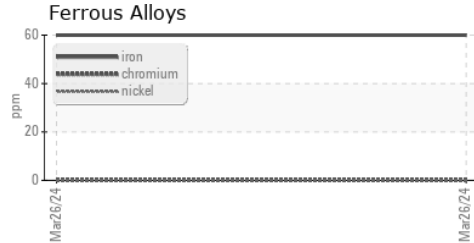
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Silt             | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Debris           | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Appearance       | scalar | Visual*    | NORML   | NORML    | ---      | --- |
| Odor             | scalar | Visual*    | NORML   | NORML    | ---      | --- |
| Emulsified Water | scalar | Visual*    | >.2     | NEG      | ---      | --- |
| Free Water       | scalar | Visual*    |         | NEG      | ---      | --- |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 93.5    | ---      | ---      |

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

|        |  |  |  |          |          |
|--------|--|--|--|----------|----------|
| Color  |  |  |  | no image | no image |
| Bottom |  |  |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0901128      **Received** : 22 Apr 2024  
**Lab Number** : 02630701      **Tested** : 23 Apr 2024  
**Unique Number** : 5763833      **Diagnosed** : 23 Apr 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PQ )

**GOLIATH ENERGY GROUP**  
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 EDMONTON, AB  
 CA T6N 1B4  
 Contact: Kurt Bromling  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.