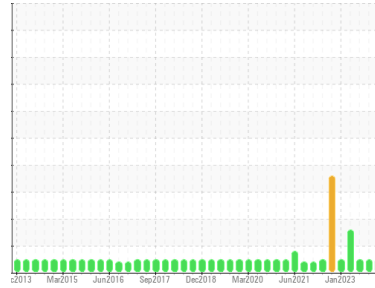




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

## 6 Calender Line

Machine Id

### 39-0423 6 Calender Kracht Hydraulic System

Component

#### Hydraulic System

Fluid

SUNOCO SUNVIS 846 ISO 46 (110 GAL)

#### DIAGNOSIS

##### Recommendation

Resample at the next service interval to monitor.

##### Wear

All component wear rates are normal.

##### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

##### Fluid Condition

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

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>WC0837285</b>   | WC0837261   | WC0808277   |
| Sample Date        | Client Info |             |            | <b>04 Jan 2024</b> | 03 Oct 2023 | 07 Jul 2023 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 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 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.05      | <b>NEG</b> | NEG      | NEG      |

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >20        | <b>0</b>     | 0        | 0        |
| Chromium    | ppm | ASTM D5185(m) | >20        | <b>0</b>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185(m) | >20        | <b>0</b>     | 0        | 0        |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185(m) |            | <b>0</b>     | <1       | 0        |
| Aluminum    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | <1       | <1       |
| Lead        | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | <1       | 0        |
| Copper      | ppm | ASTM D5185(m) | >20        | <b>0</b>     | <1       | <1       |
| Tin         | ppm | ASTM D5185(m) | >20        | <b>0</b>     | 0        | 0        |
| Antimony    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) |            | <b>0</b>     | <1       | <1       |
| Barium     | ppm | ASTM D5185(m) |            | <b>0</b>     | <1       | 0        |
| Molybdenum | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | 1        |
| Calcium    | ppm | ASTM D5185(m) |            | <b>37</b>    | 39       | 37       |
| Phosphorus | ppm | ASTM D5185(m) |            | <b>242</b>   | 243      | 261      |
| Zinc       | ppm | ASTM D5185(m) |            | <b>293</b>   | 301      | 316      |
| Sulfur     | ppm | ASTM D5185(m) |            | <b>5669</b>  | 5412     | 5884     |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | <1       |

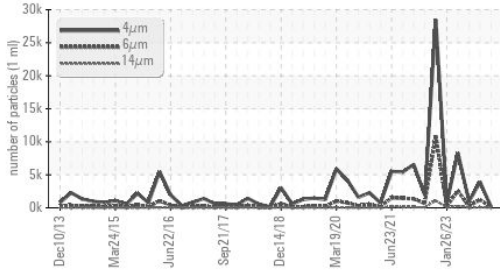
| CONTAMINANTS |     | method        | limit/base | current  | history1 | history2 |
|--------------|-----|---------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >15        | <b>0</b> | 0        | 0        |
| Sodium       | ppm | ASTM D5185(m) |            | <b>0</b> | 0        | <1       |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>4</b> | 0        | <1       |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>160</b>      | 3905     | 947      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>64</b>       | 1241     | 239      |
| Particles >14µm   |  | ASTM D7647   | >160       | <b>14</b>       | 94       | 31       |
| Particles >21µm   |  | ASTM D7647   | >40        | <b>5</b>        | 19       | 9        |
| Particles >38µm   |  | ASTM D7647   | >10        | <b>1</b>        | 1        | 1        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/14  | <b>14/13/11</b> | 19/17/14 | 17/15/12 |

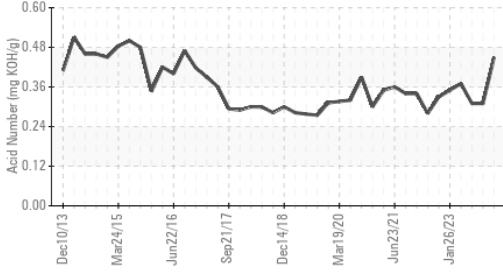


# OIL ANALYSIS REPORT

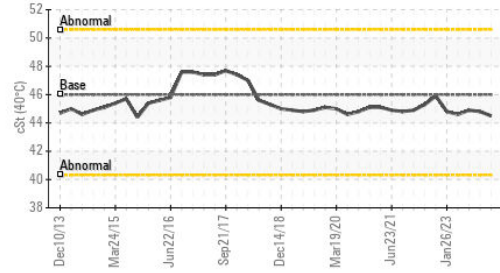
Particle Trend



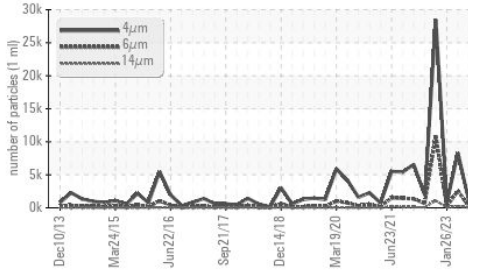
Acid Number



Viscosity @ 40°C



Particle Trend



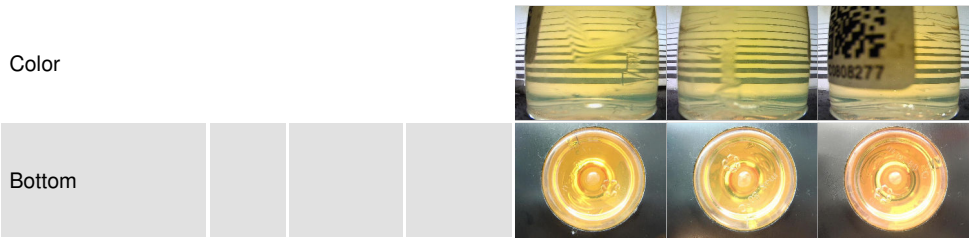
**FLUID DEGRADATION**    method    limit/base    current    history1    history2

|   |          |            |       |              |       |       |
|---|----------|------------|-------|--------------|-------|-------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* |       | <b>0.45</b>  | 0.31  | 0.31  |
| <b>VISUAL</b> method    limit/base    current    history1    history2 |          |            |       |              |       |       |
| White Metal   | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Yellow Metal  | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Precipitate   | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Silt  | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris  | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt   | scalar   | Visual*    | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance  | scalar   | Visual*    | NORML | <b>NORML</b> | NORML | NORML |
| Odor  | scalar   | Visual*    | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water  | scalar   | Visual*    | >0.05 | <b>NEG</b>   | NEG   | NEG   |
| Free Water  | scalar   | Visual*    |       | <b>NEG</b>   | NEG   | NEG   |

**FLUID PROPERTIES**    method    limit/base    current    history1    history2

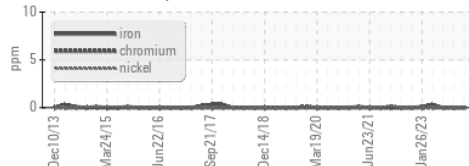
|             |     |               |      |             |      |      |
|-------------|-----|---------------|------|-------------|------|------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 46.0 | <b>44.5</b> | 44.8 | 44.9 |
|-------------|-----|---------------|------|-------------|------|------|

**SAMPLE IMAGES**    method    limit/base    current    history1    history2

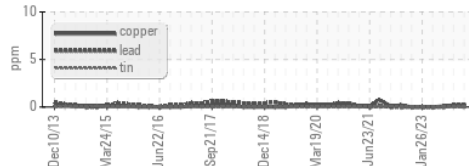


**GRAPHS**

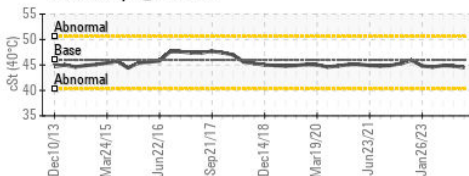
Ferrous Alloys



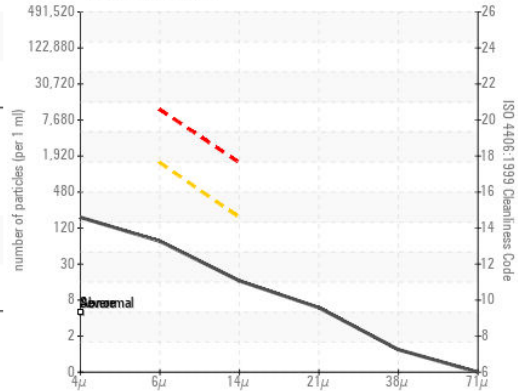
Non-ferrous Metals



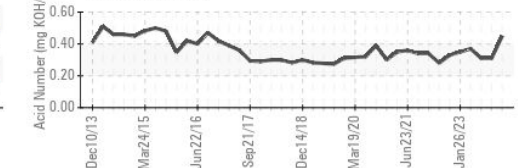
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CANADIAN GENERAL TOWER LTD.**  
**Sample No.** : WC0837285    **Received** : 11 Jan 2024    52 MIDDLETON STREET, P.O. BOX 160  
**Lab Number** : **02608195**    **Diagnosed** : 15 Jan 2024    CAMBRIDGE, ON  
**Unique Number** : 5709281    **Diagnostician** : Kevin Marson    CA N1S 2R4  
**Test Package** : IND 2 ( Additional Tests: TAN Man )    Contact: Bob Abell

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.

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