



OIL ANALYSIS REPORT

|               |        |
|---------------|--------|
| WEAR          | NORMAL |
| CONTAMINANTS  | NORMAL |
| OIL CONDITION | NORMAL |

Area  
**(C-GNNR)**  
Machine Id  
**BEEHCRAFT PCEHA0248**  
Component  
**Left Jet Turbine**  
Fluid  
**EASTMAN TURBO OIL 2380 (--- GAL)**

**RECOMMENDATION**

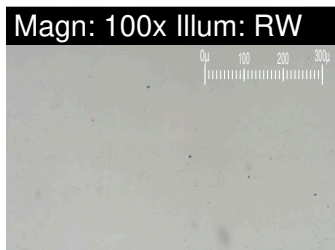
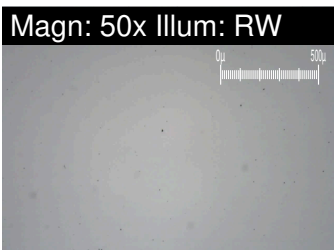
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0944750</b>   | WC0910021   | WC0894698   |
| Sample Date    |     | Client Info |           | <b>27 May 2024</b> | 18 Mar 2024 | 22 Jan 2024 |
| TSN            | hrs | Client Info |           | <b>5023</b>        | 4815        | 4604        |
| TSO            | hrs | Client Info |           | <b>727</b>         | 518         | 307         |
| Oil Age        | hrs | Client Info |           | <b>727</b>         | 518         | 307         |
| Filter Age     | hrs | Client Info |           | <b>727</b>         | 518         | 307         |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | Not Changed | Not Changed |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

|                            |            |               |      |             |      |      |
|----------------------------|------------|---------------|------|-------------|------|------|
| Iron                       | ppm        | ASTM D5185(m) | >8   | <b>0</b>    | 0    | 0    |
| Chromium                   | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | 0    | 0    |
| Nickel                     | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | <1   | <1   |
| Titanium                   | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | 0    | 0    |
| Silver                     | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | 0    | 0    |
| Aluminum                   | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | <1   | <1   |
| Lead                       | ppm        | ASTM D5185(m) | >3   | <b>0</b>    | 0    | 0    |
| Copper                     | ppm        | ASTM D5185(m) | >3   | <b>0</b>    | <1   | 0    |
| Tin                        | ppm        | ASTM D5185(m) | >2   | <b>0</b>    | 0    | 0    |
| Vanadium                   | ppm        | ASTM D5185(m) |      | <b>0</b>    | 0    | 0    |
| White Metal                | scalar     | Visual*       | NONE | <b>NONE</b> | NONE | NONE |
| Yellow Metal               | scalar     | Visual*       | NONE | <b>NONE</b> | NONE | NONE |
| Large Particles            |            | DR-Ferr*      |      | <b>1.6</b>  | 1.0  | 0.8  |
| Small Particles            |            | DR-Ferr*      |      | <b>0.5</b>  | 0.6  | 0.5  |
| Total Particles            |            | DR-Ferr*      | >--- | <b>2.1</b>  | 1.6  | 1.3  |
| Large Particles Percentage | %          | DR-Ferr*      |      | <b>52.4</b> | 25   | 23.1 |
| Severity Index             |            | DR-Ferr*      |      | <b>2</b>    | 0    | 0    |
| Ferrous Rubbing            | Scale 0-10 | ASTM D7684*   |      | <b>1</b>    | 1    | 1    |
| Ferrous Sliding            | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Cutting            | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Rolling            | Scale 0-10 | ASTM D7684*   |      |             | 1    | 1    |
| Ferrous Break-in           | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Spheres            | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Black Oxides       | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Red Oxides         | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Corrosive          | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Ferrous Other              | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Nonferrous Rubbing         | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Nonferrous Sliding         | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Nonferrous Cutting         | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Nonferrous Rolling         | Scale 0-10 | ASTM D7684*   |      |             |      |      |
| Nonferrous Other           | Scale 0-10 | ASTM D7684*   |      |             |      |      |



## CONTAMINANTS

The water content is negligible. There is no indication of any contamination in the oil.

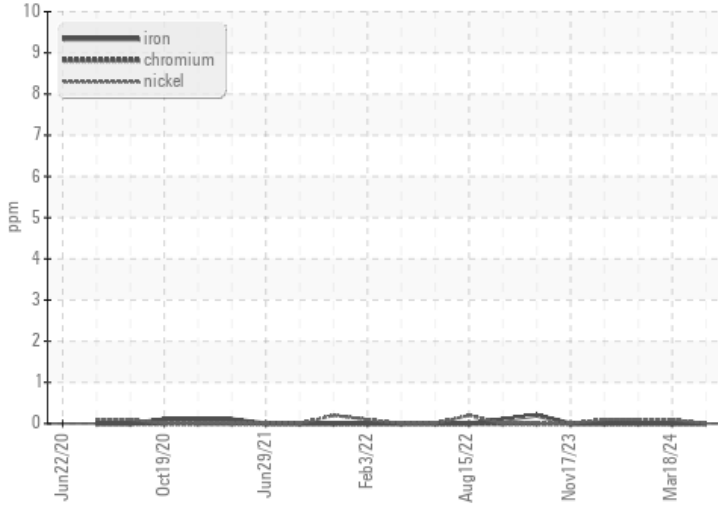
|                       |            |               |       |              |       |       |
|-----------------------|------------|---------------|-------|--------------|-------|-------|
| Silicon               | ppm        | ASTM D5185(m) | >8    | <b>1</b>     | 3     | 2     |
| Potassium             | ppm        | ASTM D5185(m) | >20   | <b>0</b>     | <1    | <1    |
| Water                 | %          | ASTM D6304*   | >0.1  | <b>0.054</b> | 0.025 | 0.023 |
| ppm Water             | ppm        | ASTM D6304*   | >1000 | <b>543</b>   | 251   | 237   |
| 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*       | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Carbonaceous Material | Scale 0-10 | ASTM D7684*   |       |              |       |       |
| Sand/Dirt             | Scale 0-10 | ASTM D7684*   |       |              |       | 1     |
| Fibres                | Scale 0-10 | ASTM D7684*   |       |              |       |       |
| Spheres               | Scale 0-10 | ASTM D7684*   |       |              |       |       |
| Other                 | Scale 0-10 | ASTM D7684*   |       | <b>1</b>     | 1     |       |

## OIL CONDITION

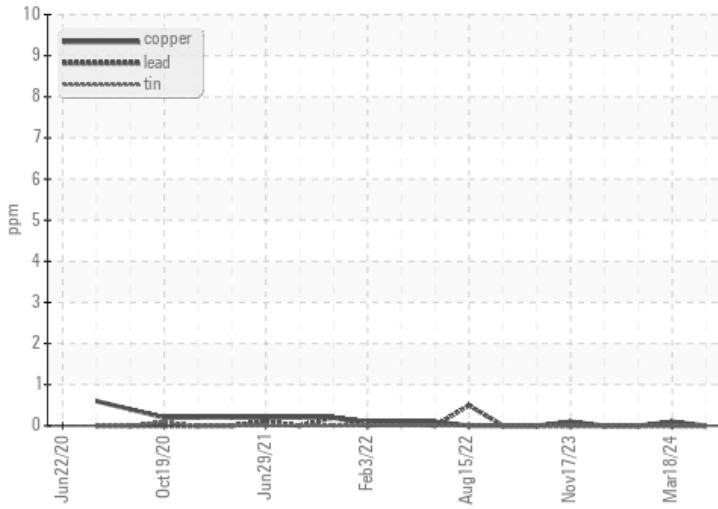
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                       |            |               |      |              |      |      |
|-----------------------|------------|---------------|------|--------------|------|------|
| Sodium                | ppm        | ASTM D5185(m) |      | <b>0</b>     | <1   | 0    |
| Boron                 | ppm        | ASTM D5185(m) | 0    | <b>&lt;1</b> | 0    | <1   |
| Barium                | ppm        | ASTM D5185(m) | 0    | <b>0</b>     | 0    | 0    |
| Molybdenum            | ppm        | ASTM D5185(m) | 0    | <b>0</b>     | 0    | 0    |
| Manganese             | ppm        | ASTM D5185(m) |      | <b>0</b>     | 0    | 0    |
| Magnesium             | ppm        | ASTM D5185(m) | 0    | <b>&lt;1</b> | <1   | <1   |
| Calcium               | ppm        | ASTM D5185(m) | 0    | <b>0</b>     | 0    | 0    |
| Phosphorus            | ppm        | ASTM D5185(m) | 2500 | <b>2652</b>  | 2808 | 2565 |
| Zinc                  | ppm        | ASTM D5185(m) | 0    | <b>&lt;1</b> | 1    | <1   |
| Sulfur                | ppm        | ASTM D5185(m) | 0    | <b>&lt;1</b> | 0    | 0    |
| Acid Number (AN)      | mg KOH/g   | ASTM D974*    | 0.43 | <b>0.25</b>  | 0.30 | 0.26 |
| Visc @ 40°C           | cSt        | ASTM D7279(m) | 24.2 | <b>24.4</b>  | 24.1 | 24.6 |
| Visc @ 100°C          | cSt        | ASTM D7279(m) | 4.97 | <b>4.9</b>   | 4.9  | 5    |
| Viscosity Index (VI)  | Scale      | ASTM D2270*   | 134  | <b>126</b>   | 129  | 132  |
| Lubricant Degradation | Scale 0-10 | ASTM D7684*   |      |              |      |      |

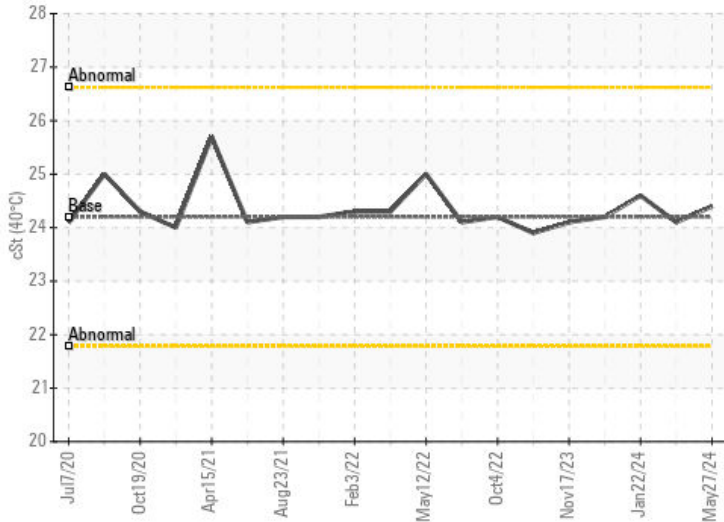
### Ferrous Alloys



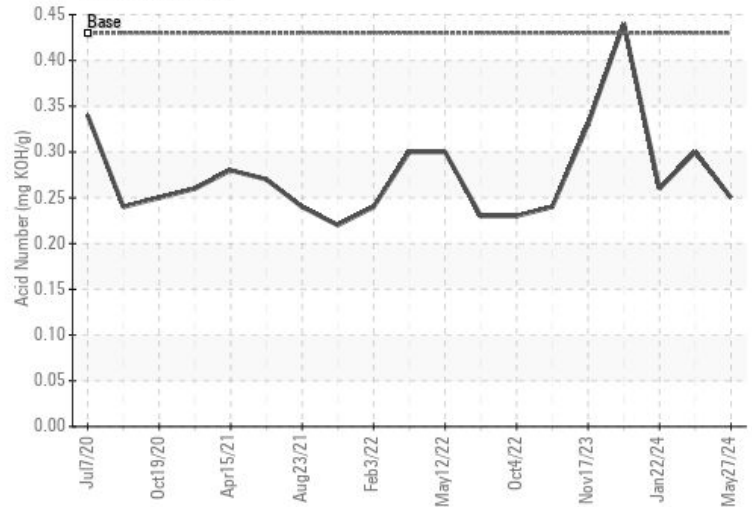
### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0944750  
**Lab Number** : 02638845  
**Unique Number** : 5788007  
**Test Package** : AVI 3  
**Received** : 30 May 2024  
**Tested** : 06 Jun 2024  
**Diagnosed** : 06 Jun 2024 - Kevin Marson

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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