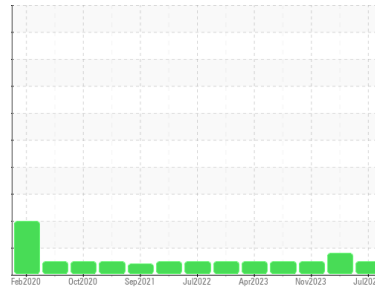




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**090-HU-003 Second Press**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO NUTO H ISO 150 (10000 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.

### Wear

Component wear rates appear to be normal (unconfirmed).

### 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 acceptable for the time in service (unconfirmed).

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0962286</b>   | WC0913386   | WC0879781   |
| Sample Date   | Client Info |             | <b>03 Jul 2024</b> | 26 Feb 2024 | 08 Nov 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>      | ATTENTION   | 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>&lt;1</b> | 1        | <1 |
| Chromium  | ppm    | ASTM D5185(m) | >20     | <b>0</b>     | 0        | 0  |
| Nickel    | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | <1       | 0  |
| Titanium  | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | 0  |
| Silver    | ppm    | ASTM D5185(m) |         | <b>0</b>     | 0        | <1 |
| Aluminum  | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | <1       | <1 |
| Lead      | ppm    | ASTM D5185(m) | >20     | <b>0</b>     | <1       | 0  |
| Copper    | ppm    | ASTM D5185(m) | >20     | <b>3</b>     | 2        | 2  |
| 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>&lt;1</b> | 0        | <1   |
| Barium     | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | 0        | <1   |
| 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>3</b>     | 3        | 2    |
| Calcium    | ppm    | ASTM D5185(m) |         | <b>106</b>   | 108      | 109  |
| Phosphorus | ppm    | ASTM D5185(m) |         | <b>395</b>   | 413      | 395  |
| Zinc       | ppm    | ASTM D5185(m) |         | <b>495</b>   | 516      | 523  |
| Sulfur     | ppm    | ASTM D5185(m) |         | <b>8397</b>  | 9218     | 8862 |
| Lithium    | ppm    | ASTM D5185(m) |         | <b>&lt;1</b> | <1       | <1   |

## CONTAMINANTS

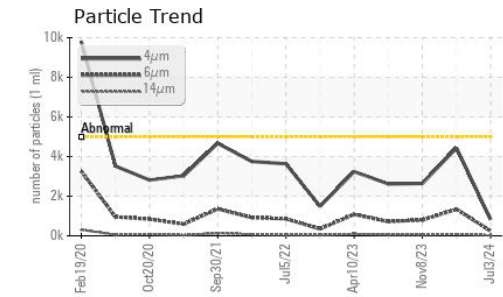
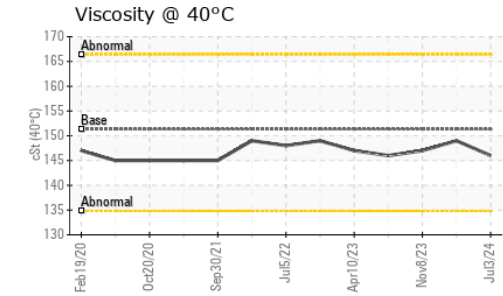
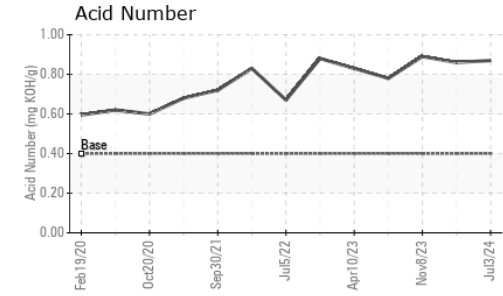
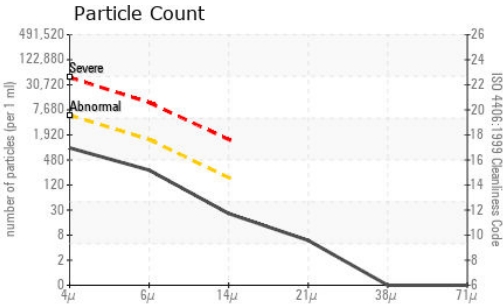
|           | method | limit/base    | current | history1     | history2 |    |
|-----------|--------|---------------|---------|--------------|----------|----|
| Silicon   | ppm    | ASTM D5185(m) | >15     | <b>2</b>     | <1       | <1 |
| Sodium    | ppm    | ASTM D5185(m) |         | <b>2</b>     | 2        | 2  |
| Potassium | ppm    | ASTM D5185(m) | >20     | <b>&lt;1</b> | 1        | <1 |

## FLUID CLEANLINESS

|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >5000      | <b>822</b>      | 4434     | 2642     |
| Particles >6µm  | ASTM D7647   | >1300      | <b>241</b>      | 1344     | 796      |
| Particles >14µm | ASTM D7647   | >160       | <b>22</b>       | 82       | 56       |
| Particles >21µm | ASTM D7647   | >40        | <b>5</b>        | 14       | 13       |
| Particles >38µm | ASTM D7647   | >10        | <b>0</b>        | 0        | 1        |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>        | 0        | 1        |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14  | <b>17/15/12</b> | 19/18/14 | 19/17/13 |



# OIL ANALYSIS REPORT



| FLUID DEGRADATION | method   | limit/base | current | history1    | history2 |      |
|-------------------|----------|------------|---------|-------------|----------|------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | .40     | <b>0.87</b> | 0.86     | 0.89 |

| VISUAL           | method | limit/base | current | history1     | history2 |       |
|------------------|--------|------------|---------|--------------|----------|-------|
| White Metal      | scalar | Visual*    | NONE    | <b>VLITE</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) | 151.3   | <b>146</b> | 149      | 147 |

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

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



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0962286      **Received** : 04 Jul 2024  
**Lab Number** : **02645636**      **Tested** : 05 Jul 2024  
**Unique Number** : 5803175      **Diagnosed** : 05 Jul 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: Bottom, FilterPatch, TAN Man )

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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