

# **OIL ANALYSIS REPORT**

#### Area Morony Machine Id MRN01 Generator Thrust / Guide Bearing Component

Reservoir Journal Bearing Fluid CONOCO TURBINE OIL 68 (30 GAL)

#### DIAGNOSIS

## Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## Wear

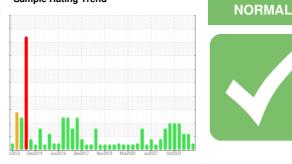
All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable.

### **Fluid Condition**

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

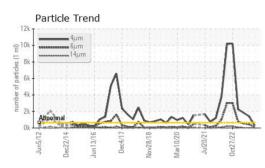


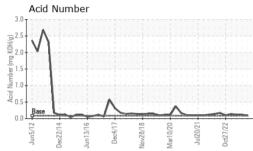
Sample Rating Trend

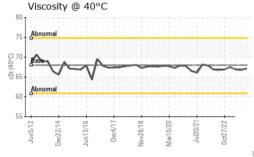
| SAMPLE INFORM    | IATION   | method       | limit/base | current     | history1    | history2    |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| Sample Number    |          | Client Info  |            | WC0843438   | WC0715266   | WC0757807   |
| Sample Date      |          | Client Info  |            | 17 Oct 2023 | 15 Jul 2023 | 01 May 2023 |
| Machine Age      | hrs      | Client Info  |            | 0           | 0           | 0           |
| Oil Age          | hrs      | Client Info  |            | 0           | 0           | 0           |
| Oil Changed      |          | Client Info  |            | N/A         | N/A         | N/A         |
| Sample Status    |          |              |            | NORMAL      | ABNORMAL    | ABNORMAL    |
| WEAR METALS      |          | method       | limit/base | current     | history1    | history2    |
| Iron             | ppm      | ASTM D5185m  | >60        | 2           | 3           | 1           |
| Chromium         | ppm      | ASTM D5185m  | >20        | <1          | 0           | 0           |
| Nickel           | ppm      | ASTM D5185m  | >20        | 0           | 0           | 0           |
| Titanium         | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Silver           | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Aluminum         | ppm      | ASTM D5185m  | >4         | <1          | 0           | 0           |
| Lead             | ppm      | ASTM D5185m  | >250       | 0           | 0           | 0           |
| Copper           | ppm      | ASTM D5185m  | >125       | <1          | <1          | <1          |
| Tin              | ppm      | ASTM D5185m  | >80        | <1          | 0           | 0           |
| Vanadium         | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Cadmium          | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| ADDITIVES        |          | method       | limit/base | current     | history1    | history2    |
| Boron            | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Barium           | ppm      | ASTM D5185m  |            | 21          | 11          | 0           |
| Molybdenum       | ppm      | ASTM D5185m  |            | <1          | 0           | 0           |
| Manganese        | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Magnesium        | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Calcium          | ppm      | ASTM D5185m  |            | <1          | 0           | 0           |
| Phosphorus       | ppm      | ASTM D5185m  |            | 89          | 37          | 22          |
| Zinc             | ppm      | ASTM D5185m  |            | 31          | 11          | 6           |
| Sulfur           | ppm      | ASTM D5185m  |            | 270         | 363         | 224         |
| CONTAMINANTS     |          | method       | limit/base | current     | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m  | >50        | 1           | <1          | <1          |
| Sodium           | ppm      | ASTM D5185m  |            | 2           | 0           | 0           |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0           | 0           | 0           |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current     | history1    | history2    |
| Particles >4µm   |          | ASTM D7647   | >640       | 306         | 1404        | 🔺 1840      |
| Particles >6µm   |          | ASTM D7647   | >160       | 105         | <b>4</b> 36 | <b>5</b> 46 |
| Particles >14µm  |          | ASTM D7647   | >40        | 11          | 27          | 32          |
| Particles >21µm  |          | ASTM D7647   | >10        | 2           | 5           | 8           |
| Particles >38µm  |          | ASTM D7647   | >3         | 0           | 0           | 0           |
| Particles >71µm  |          | ASTM D7647   | >3         | 0           | 0           | 0           |
| Oil Cleanliness  |          | ISO 4406 (c) | >16/14/12  | 15/14/11    | ▲ 18/16/12  | ▲ 18/16/12  |
| FLUID DEGRADA    | TION     | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN) | mg KOH/g | ASTM D8045   | 0.08       | 0.09        | 0.12        | 0.12        |

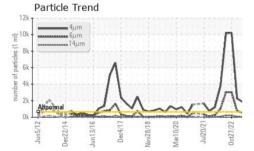


# **OIL ANALYSIS REPORT**



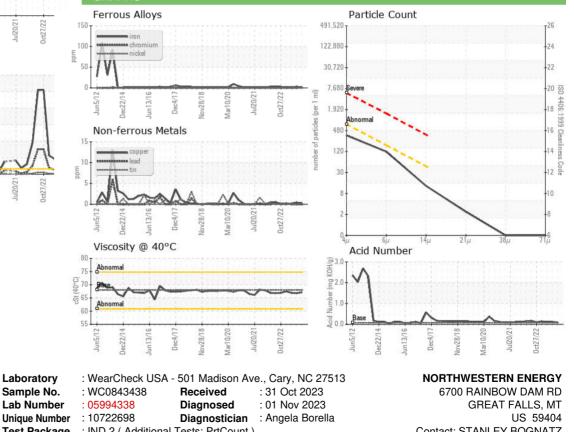


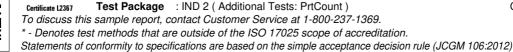




| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual   | >2         | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 68         | 67.1    | 66.8     | 66.9     |
| SAMPLE IMAGES    |        | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |
| Bottom           |        |           |            |         |          |          |







Laboratory

Sample No.

Lab Number