

## **OIL ANALYSIS REPORT**

### Sample Rating Trend



### RECO TYSSHE 2-1 (S/N 93593J) Component

**Refrigeration Compressor** USPI ALT-68 SC (--- GAL)

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

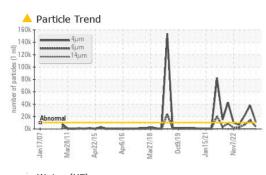
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

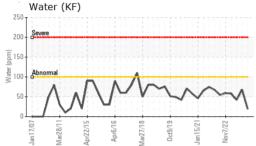
| 2931)            |          |              |                     |                           |               |                |  |
|------------------|----------|--------------|---------------------|---------------------------|---------------|----------------|--|
|                  |          | n2007 Mar20  | 011 Apr2015 Apr2016 | Mar2018 Oct2019 Jan2021 1 | Nov2022       |                |  |
| SAMPLE INFORM    | ATION    | method       | limit/base          |                           | history1      | history2       |  |
| Sample Number    |          | Client Info  |                     | USP0005231                | USP0001919    | USP0000701     |  |
| Sample Date      |          | Client Info  |                     | 08 Jan 2024               | 25 Sep 2023   | 12 Aug 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    |          |              |                     | ATTENTION                 | ABNORMAL      | ABNORMAL       |  |
| WEAR METALS      |          | method       | limit/base          | current                   | history1      | history2       |  |
| ron              | ppm      | ASTM D5185m  | >8                  | 5                         | 13            | 11             |  |
| Chromium         | ppm      | ASTM D5185m  | >2                  | <1                        | 0             | 0              |  |
| Nickel           | ppm      | ASTM D5185m  |                     | <1                        | 0             | 0              |  |
| Titanium         | ppm      | ASTM D5185m  |                     | <1                        | 0             | 0              |  |
| Silver           | ppm      | ASTM D5185m  | >2                  | 0                         | 0             | 0              |  |
| Aluminum         | ppm      | ASTM D5185m  | >3                  | 0                         | 0             | 1              |  |
| Lead             | ppm      | ASTM D5185m  | >2                  | <1                        | 0             | 0              |  |
| Copper           | ppm      | ASTM D5185m  | >8                  | <1                        | <1            | <1             |  |
| Tin              | ppm      | ASTM D5185m  | >4                  | <1                        | <1            | 0              |  |
| Vanadium         | ppm      | ASTM D5185m  |                     | 0                         | 0             | <1             |  |
| Cadmium          | ppm      | ASTM D5185m  |                     | <1                        | 0             | 0              |  |
| ADDITIVES        |          | method       | limit/base          | current                   | history1      | history2       |  |
| Boron            | ppm      | ASTM D5185m  |                     | 0                         | 0             | 0              |  |
| Barium           | ppm      | ASTM D5185m  |                     | 0                         | 0             | 0              |  |
| Volybdenum       | ppm      | ASTM D5185m  |                     | <1                        | <1            | 0              |  |
| Vanganese        | ppm      | ASTM D5185m  |                     | <1                        | <1            | <1             |  |
| Vagnesium        | ppm      | ASTM D5185m  |                     | 0                         | <1            | 0              |  |
| Calcium          | ppm      | ASTM D5185m  |                     | 0                         | <1            | 0              |  |
| Phosphorus       | ppm      | ASTM D5185m  |                     | 0                         | 0             | <1             |  |
| Zinc             | ppm      | ASTM D5185m  |                     | 0                         | 0             | 0              |  |
| Sulfur           | ppm      | ASTM D5185m  | 50                  | 0                         | 0             | 0              |  |
| CONTAMINANTS     |          | method       | limit/base          | current                   | history1      | history2       |  |
| Silicon          | ppm      | ASTM D5185m  | >15                 | 3                         | 3             | 2              |  |
| Sodium           | ppm      | ASTM D5185m  |                     | 0                         | 3             | 0              |  |
| Potassium        | ppm      | ASTM D5185m  | >20                 | 1                         | 1             | 0              |  |
| Nater            | %        | ASTM D6304   | >0.01               | 0.002                     | 0.006         | 0.004          |  |
| opm Water        | ppm      | ASTM D6304   | >100                | 19                        | 67.7          | 42             |  |
| FLUID CLEANLIN   | IESS     | method       | limit/base          | current                   | history1      | history2       |  |
| Particles >4µm   |          | ASTM D7647   | >10000              | <b>11714</b>              | 🔺 38161       | <b>A</b> 21600 |  |
| Particles >6µm   |          | ASTM D7647   | >2500               | <b>4080</b>               | <b>1</b> 3796 | ▲ 6866         |  |
| Particles >14µm  |          | ASTM D7647   | >320                | 139                       | <b>A</b> 368  | 116            |  |
| Particles >21µm  |          | ASTM D7647   | >80                 | 17                        | 35            | 10             |  |
| Particles >38µm  |          | ASTM D7647   | >20                 | 1                         | 2             | 0              |  |
| Particles >71µm  |          | ASTM D7647   | >4                  | 0                         | 0             | 0              |  |
| Oil Cleanliness  |          | ISO 4406 (c) | >20/18/15           | <b>21/19/14</b>           | ▲ 22/21/16    | ▲ 22/20/14     |  |
| FLUID DEGRADA    | TION     | method       | limit/base          | current                   | history1      | history2       |  |
| Acid Number (AN) | mg KOH/g | ASTM D974    | 0.005               | 0.014                     | 0.014         | 0.015          |  |
|                  |          |              |                     |                           |               |                |  |

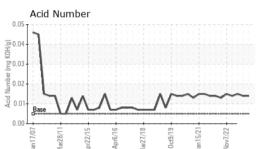
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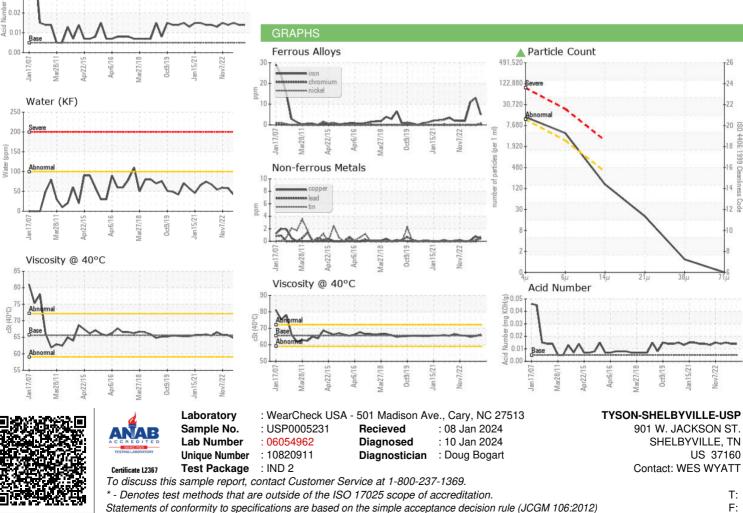








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