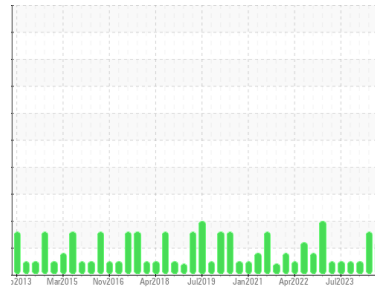




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**FRICK TYSRUSD RWB II 100 (S/N 8460R73542)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI ALT-68 SC (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high 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.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>USP0015009</b>  | USP0006476  | USP214754   |
| Sample Date   | Client Info |             | <b>15 Jul 2024</b> | 18 Apr 2024 | 08 Jan 2024 |
| Machine Age   | hrs         | Client Info | <b>75474</b>       | 73334       | 70882       |
| 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>ABNORMAL</b>    | ABNORMAL    | NORMAL      |

## WEAR METALS

|          | method | limit/base     | current  | history1 | history2 |
|----------|--------|----------------|----------|----------|----------|
| Iron     | ppm    | ASTM D5185m >8 | <b>0</b> | 0        | 0        |
| Chromium | ppm    | ASTM D5185m >2 | <b>0</b> | <1       | 0        |
| Nickel   | ppm    | ASTM D5185m    | <b>0</b> | 0        | 0        |
| Titanium | ppm    | ASTM D5185m    | <b>0</b> | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >2 | <b>0</b> | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >3 | <b>0</b> | 0        | 0        |
| Lead     | ppm    | ASTM D5185m >2 | <b>0</b> | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >8 | <b>0</b> | 0        | 0        |
| Tin      | ppm    | ASTM D5185m >4 | <b>0</b> | <1       | 0        |
| Vanadium | ppm    | ASTM D5185m    | <b>0</b> | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m    | <b>0</b> | 0        | 0        |

## ADDITIVES

|            | method | limit/base     | current      | history1 | history2 |
|------------|--------|----------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm    | ASTM D5185m    | <b>&lt;1</b> | 1        | 0        |
| Calcium    | ppm    | ASTM D5185m    | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm    | ASTM D5185m    | <b>0</b>     | <1       | 0        |
| Zinc       | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m 50 | <b>15</b>    | 0        | 0        |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15  | <b>1</b>     | 1        | <1       |
| Sodium    | ppm    | ASTM D5185m      | <b>1</b>     | <1       | 0        |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | <1       | 1        |
| Water     | %      | ASTM D6304 >0.01 | <b>0.002</b> | 0.006    | 0.003    |
| ppm Water | ppm    | ASTM D6304 >100  | <b>18</b>    | 69       | 35       |

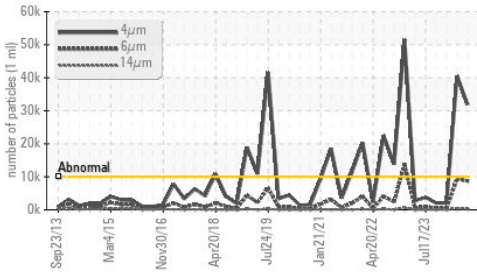
## FLUID CLEANLINESS

|                 | method       | limit/base | current           | history1   | history2 |
|-----------------|--------------|------------|-------------------|------------|----------|
| Particles >4µm  | ASTM D7647   | >10000     | <b>▲ 31868</b>    | ▲ 40538    | 2059     |
| Particles >6µm  | ASTM D7647   | >2500      | <b>▲ 8711</b>     | ▲ 9349     | 386      |
| Particles >14µm | ASTM D7647   | >320       | <b>226</b>        | ▲ 408      | 20       |
| Particles >21µm | ASTM D7647   | >80        | <b>16</b>         | 66         | 4        |
| Particles >38µm | ASTM D7647   | >20        | <b>0</b>          | 1          | 0        |
| Particles >71µm | ASTM D7647   | >4         | <b>0</b>          | 0          | 0        |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15  | <b>▲ 22/20/15</b> | ▲ 23/20/16 | 18/16/11 |

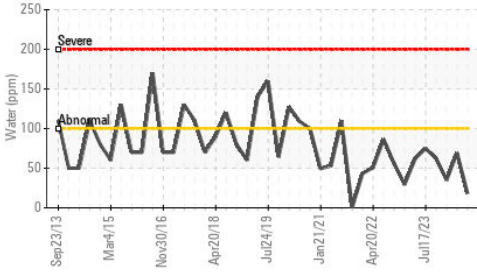
## FLUID DEGRADATION

|                  | method   | limit/base      | current      | history1 | history2 |
|------------------|----------|-----------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974 0.005 | <b>0.014</b> | 0.014    | 0.015    |

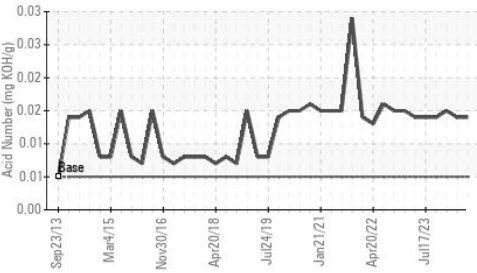
### Particle Trend



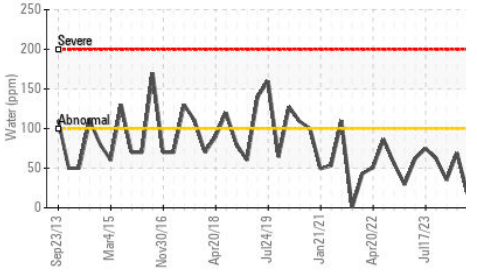
### Water (KF)



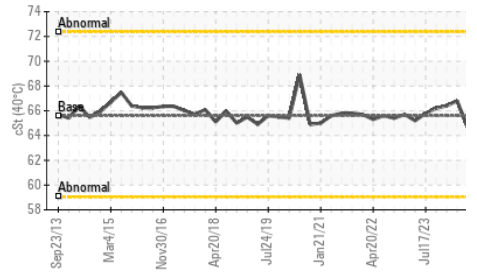
### Acid Number



### Water (KF)



### Viscosity @ 40°C



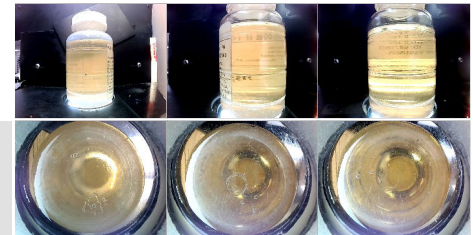
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.01   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 65.6    | 64.7     | 66.8     |

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

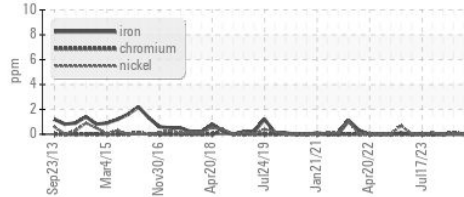
Color

Bottom

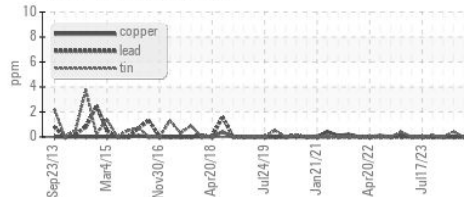


### GRAPHS

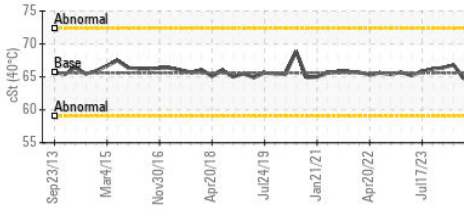
#### Ferrous Alloys



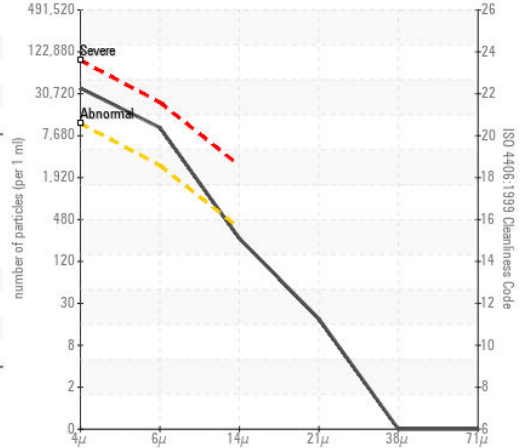
#### Non-ferrous Metals



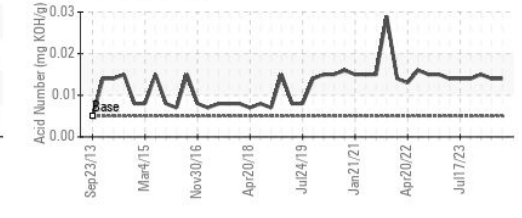
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : USP0015009

Lab Number : 06239172

Unique Number : 11128006

Test Package : IND 2

Received : 17 Jul 2024

Tested : 18 Jul 2024

Diagnosed : 19 Jul 2024 - Doug Bogart

TYSON DC -RUSSELLVILLE-USP

1000 EAST MAIN STREET

RUSSELLVILLE, AR

US 72801

Contact: MARK JOHNSON

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:

F: