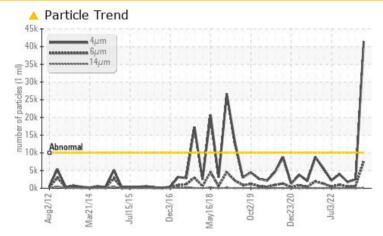


# **PROBLEM SUMMARY**

# VILTER TYSSPRCH-R5 (S/N 32677)

Refrigeration Compressor Fluid USPI ALT-68 SC (20 GAL)

## COMPONENT CONDITION SUMMARY



### RECOMMENDATION

Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS |              |           |          |          |          |  |  |  |  |
|--------------------------|--------------|-----------|----------|----------|----------|--|--|--|--|
| Sample Status            |              |           | ABNORMAL | NORMAL   | NORMAL   |  |  |  |  |
| Particles >4µm           | ASTM D7647   | >10000    | <u> </u> | 2522     | 1737     |  |  |  |  |
| Particles >6µm           | ASTM D7647   | >2500     | 🔺 7619   | 630      | 445      |  |  |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >20/18/15 | <u> </u> | 19/16/11 | 18/16/11 |  |  |  |  |

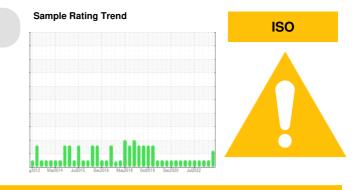
Customer Id: TYSSPRCH Sample No.: USP0000581 Lab Number: 05927899 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

### HISTORICAL DIAGNOSIS

### 03 May 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 02 Feb 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



## 01 Nov 2022 Diag: Doug Bogart

#### NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

ISO

# VILTER TYSSPRCH-R5 (S/N 32677)

Refrigeration Compressor

USPI ALT-68 SC (20 GAL)

### DIAGNOSIS

### A 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 cu       | rrent history1 history2             |
|---|-------------------------------------|
| Sample Number Client Info USP00               | 00581 USP243316 USP246750           |
| Sample Date Client Info 15 Aug                | <b>2023</b> 03 May 2023 02 Feb 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 ABNOF                           | RMAL NORMAL NORMAL                  |
| WEAR METALS method limit/base cu              | rrent history1 history2             |
| Iron ppm ASTM D5185m >8 1                     | <1 1                                |
| Chromium ppm ASTM D5185m >2 0                 | 0 0                                 |
| Nickel ppm ASTM D5185m 0                      | 0 0                                 |
| Titanium ppm ASTM D5185m 0                    | 0 0                                 |
| Silver ppm ASTM D5185m >2 0                   | 0 0                                 |
| Aluminum ppm ASTM D5185m >3 0                 | 0 0                                 |
| Lead ppm ASTM D5185m >2 0                     | 0 0                                 |
| Copper ppm ASTM D5185m >8 0                   | 0 0                                 |
| Tin ppm ASTM D5185m >4 0                      | 0 0                                 |
| Vanadium ppm ASTM D5185m <1                   | 0 0                                 |
| CadmiumppmASTM D5185m0                        | 0 0                                 |
| ADDITIVES method limit/base cu                | rrent history1 history2             |
| Boron ppm ASTM D5185m 0                       | 0 0                                 |
| Barium ppm ASTM D5185m 0                      | 0 <1                                |
| Molybdenum ppm ASTM D5185m 0                  | 0 0                                 |
| Manganese ppm ASTM D5185m 0                   | 0 0                                 |
| MagnesiumppmASTM D5185m0                      | 0 0                                 |
| Calcium ppm ASTM D5185m 0                     | 0 0                                 |
| Phosphorus ppm ASTM D5185m 0                  | 0 0                                 |
| Zinc ppm ASTM D5185m 0                        | 0 0                                 |
| Sulfur ppm ASTM D5185m 50 0                   | 0 0                                 |
| CONTAMINANTS method limit/base cu             | rrent history1 history2             |
| Silicon ppm ASTM D5185m >15 <1                | 0 <1                                |
| Sodium ppm ASTM D5185m 0                      | 0 0                                 |
| Potassium ppm ASTM D5185m >20 <1              | 1 0                                 |
| Water % ASTM D6304 >0.01 0.003                | <b>3</b> 0.003 0.005                |
| ppm Water ppm ASTM D6304 >100 27.8            | 27.5 54.7                           |
| FLUID CLEANLINESS method limit/base cu        | rrent history1 history2             |
| Particles >4μm ASTM D7647 >10000 ▲ 4140       |                                     |
| Particles >6μm ASTM D7647 >2500 A 7619        | 630 445                             |
| Particles >14μm ASTM D7647 >320 131           | 15 19                               |
| Particles >21μm ASTM D7647 >80 27             | 2 4                                 |
| Particles >38μm ASTM D7647 >20 1              | 0 0                                 |
| Particles >71μm ASTM D7647 >4 0               | 0 0                                 |
| Oil Cleanliness ISO 4406 (c) >20/18/15 🔺 23/2 | <b>0/14</b> 19/16/11 18/16/11       |
| FLUID DEGRADATION method limit/base cu        | rrent history1 history2             |
| TEGID DEGLIND/THON Infoliod Infiliodase ed    |                                     |

Contact/Location: SERVICE - TYSSPRCH

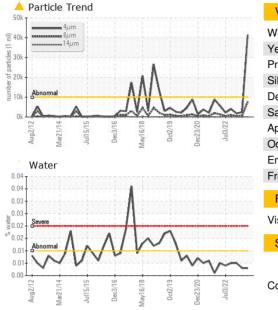


Acid Number

0.04

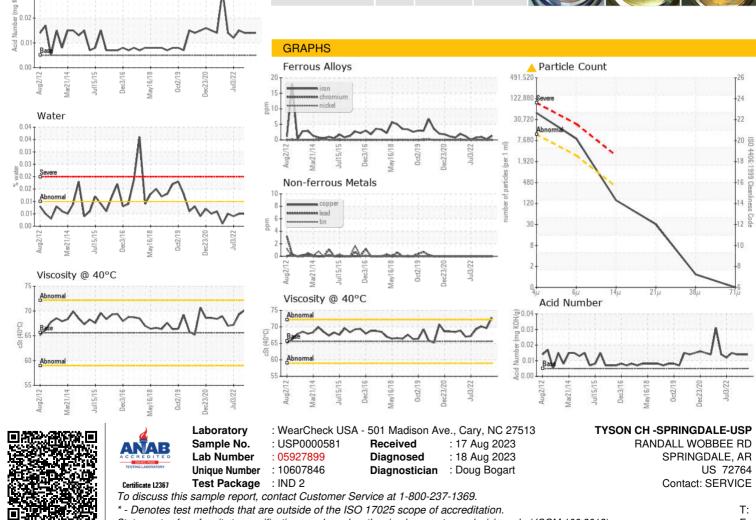
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# **OIL ANALYSIS REPORT**



| 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   | >0.01      | 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 | 65.6       | 72.8    | 69.6     | 70.1     |
| SAMPLE IMAGES    | 6      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |

Bottom



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

Contact/Location: SERVICE - TYSSPRCH