

## **OIL ANALYSIS REPORT**

Sample Rating Trend

### NORMAL

# FRICK TYSMON 7 HS (S/N GDSH233500195)

Refrigeration Compressor

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 no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

#### Fluid Condition

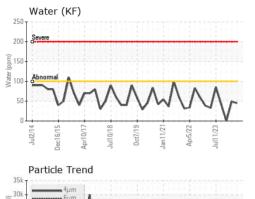
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

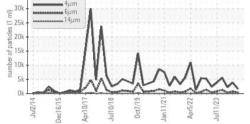
| Sample Number         Client Info         USP0012350         USP0011004         USP0005085           Sample Date         Client Info         09 Jul 2024         22 Apr 2024         09 Jan 2024           Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A           Sample Status         method         imit/base         current         history1         history1           Iron         ppm         ASTM 05165n         >8         2         <1         0           Chromium         ppm         ASTM 05165n         >2         0         0         0           Silver         ppm         ASTM 05165n         >2         0         0         0           Capper         ppm         ASTM 05165n         >2         0         0         0           Vanadium         ppm         ASTM 05165n         >2         0         0         0           Capper         ppm         ASTM 05165n         >4         0         0         0           Vanadium         ppm         AS                                                                                         | SAMPLE INFORM    | <b>IATION</b> | method       | limit/base | current     | history1    | history2    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|--------------|------------|-------------|-------------|-------------|
| Machine Age         hrs         Client Info         147323         145576         143351           Oil Age         hrs         Client Info         0         0         0           Oil Age         Krs         Client Info         N/A         N/A         N/A           Sample Status         method         Imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >8         2         <1         0           Nickel         ppm         ASTM D5185m         >2         0         0         0           Titanium         ppm         ASTM D5185m         >2         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Cadmium         ppm         ASTM D5185m         >2         0         0         0           Cadmium         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         1         0           Ran                                                                                                                     | Sample Number    |               | Client Info  |            | USP0012350  | USP0011004  | USP0005085  |
| Oil Age         Inrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5165m         >8         2         <1         0           Chromium         ppm         ASTM D5165m         >2         0         0         0           Nickel         ppm         ASTM D5165m         >2         0         0         0           Silver         ppm         ASTM D5165m         >2         0         0         0           Auminum         ppm         ASTM D5165m         >3         12         14         13           Lead         ppm         ASTM D5165m         >3         0         0         0           Capper         ppm         ASTM D5165m         >4         0         0         0           Cadmium         ppm         ASTM D5165m         0         0         0         0           Cadmium         ppm         ASTM D5165m         0         0         0         0 <t< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>09 Jul 2024</th><th>22 Apr 2024</th><th>09 Jan 2024</th></t<> | Sample Date      |               | Client Info  |            | 09 Jul 2024 | 22 Apr 2024 | 09 Jan 2024 |
| Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >8         2         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Machine Age      | hrs           | Client Info  |            | 147323      | 145576      | 143351      |
| Sample Status         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >8         2         <1         0           Nickel         ppm         ASTM D5185m         >2         0         0         0           Nickel         ppm         ASTM D5185m         >2         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >2         0         0         0         0           Copper         ppm         ASTM D5185m         >2         0         0         0         0           Cadmium         ppm         ASTM D5185m         S4         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         <1         0         2           Phosphorus         ppm <t< th=""><th>Oil Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th>0</th><th>0</th></t<>                               | Oil Age          | hrs           | Client Info  |            | 0           | 0           | 0           |
| WEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >8         2         <1         0           Ohromium         ppm         ASTM D5185m         2         0         0         0           Nickel         ppm         ASTM D5185m         2         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >2         0         0         0           Vanadium         ppm         ASTM D5185m         2         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Roron         ppm         ASTM D5185m         0         0         0         1           Maganese         ppm         ASTM D5185m         0         0         2                                                                                                                                           | Oil Changed      |               | Client Info  |            | N/A         | N/A         | N/A         |
| Iron         ppm         ASTM D5185m         >8         2         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample Status    |               |              |            | NORMAL      | NORMAL      | NORMAL      |
| Chromium         ppm         ASTM D5185m         >2         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >3         12         14         13           Lead         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         1           Magnesium         ppm         ASTM D5185m         0         0         2         1           Magnesium         ppm         ASTM D5185m         0         0         3         3                                                                                                                                                      | WEAR METALS      |               | method       | limit/base | current     | history1    | history2    |
| Nickel         ppm         ASTM D5185m         0         0         0           Titanium         ppm         ASTM D5185m         2         0         0         0           Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         1           Magnesium         ppm         ASTM D5185m         0         0         2         1           Phosphorus         ppm         ASTM D5185m         1         0         2         2           <                                                                                                                                            | Iron             | ppm           | ASTM D5185m  | >8         | 2           | <1          | 0           |
| Titanium         ppm         ASTM 05185m         0         0         0         0           Silver         ppm         ASTM 05185m         >2         0         0         0           Aluminum         ppm         ASTM 05185m         >3         12         14         13           Lead         ppm         ASTM 05185m         >2         0         0         0           Copper         ppm         ASTM 05185m         >2         0         0         0           Copper         ppm         ASTM 05185m         >4         0         0         0           Vanadium         ppm         ASTM 05185m         0         0         0         0           Cadmium         ppm         ASTM 05185m         0         0         0         0           Boron         ppm         ASTM 05185m         0         0         0         0           Magnaese         ppm         ASTM 05185m         0         0         0         1           Magnaese         ppm         ASTM 05185m         0         0         3         3           Sulfur         ppm         ASTM 05185m         <1         0         0         3 <th>Chromium</th> <th>ppm</th> <th>ASTM D5185m</th> <th>&gt;2</th> <th>0</th> <th>0</th> <th>0</th>                                         | Chromium         | ppm           | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Silver         ppm         ASTM D5185m         >2         0         0         0           Aluminum         ppm         ASTM D5185m         >3         12         14         13           Lead         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >8         0         0         1           Tin         ppm         ASTM D5185m         >8         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         0         1           Calcium         ppm         ASTM D5185m         0         0         2         1           Phosphorus         ppm         ASTM D5185m         1         0         0         2                                                                                                                                | Nickel           | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Aluminum         ppm         ASTM D5185m         >3         12         14         13           Lead         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >8         0         0         1           Tin         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         1         0           Calcium         ppm         ASTM D5185m         0         0         2         1           Phosphorus         ppm         ASTM D5185m         1         0         0         2           Sulfur         ppm         ASTM D5185m         1         1         0         0 <th>Titanium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>0</th>                                   | Titanium         | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Lead         ppm         ASTM D5185m         >2         0         0         0           Copper         ppm         ASTM D5185m         >8         0         0         1           Tin         ppm         ASTM D5185m         >4         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Marganese         ppm         ASTM D5185m         0         0         <1         1           Magnesium         ppm         ASTM D5185m         0         0         <1         1           Calcium         ppm         ASTM D5185m         1         0         0         2           Phosphorus         ppm         ASTM D5185m         1         0         0         2           Sliforn         ppm         ASTM D5185m         1         0         0                                                                                                                                 | Silver           | ppm           | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Copper         ppm         ASTM D5185m         >8         0         0         1           Tin         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Malgaesium         ppm         ASTM D5185m         0         0         0         1           Magnesium         ppm         ASTM D5185m         0         0         <1         2           Phosphorus         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         1         <1         0                                                                                                                 | Aluminum         | ppm           | ASTM D5185m  | >3         | 12          | 14          | 13          |
| Copper         ppm         ASTM D5185m         >8         0         0         1           Tin         ppm         ASTM D5185m         >4         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Malgaesium         ppm         ASTM D5185m         0         0         0         1           Magnesium         ppm         ASTM D5185m         0         0         <1         2           Phosphorus         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         1         <1         0                                                                                                                 | Lead             |               | ASTM D5185m  | >2         | 0           | 0           | 0           |
| Tin         ppm         ASTM D5185m         >4         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Magnanese         ppm         ASTM D5185m         0         0         <1         0           Calcium         ppm         ASTM D5185m         1         0         0         0           Zinc         ppm         ASTM D5185m         1         0         0         0           Sulfur         ppm         ASTM D5185m         50         106         117         106           Posphorus         ppm         ASTM D5185m         51<         <1         <1         0         0           Sulfur         ppm         ASTM D5185m         20         <1         0         0         0                                                                                                                             | Copper           |               | ASTM D5185m  | >8         | 0           | 0           | 1           |
| Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Maganese         ppm         ASTM D5185m         0         0         <1         0         2           Phosphorus         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         0         0         0         0           Sodium         ppm         ASTM D5185m         1         0         0         0           Sulfur         ppm         ASTM D5185m         20         1         0         <                                                                                                                           |                  |               |              | >4         | 0           | 0           | 0           |
| Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m         0         0         0         1           Calcium         ppm         ASTM D5185m         0         0         0         2           Phosphorus         ppm         ASTM D5185m         1         0         0         3           Sulfur         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1                                                                                                                                                                                                                   | Vanadium         | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Boron         ppm         ASTM D5185m         0         0         0           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         0         0         <1           Magnesium         ppm         ASTM D5185m         0         0         <1           Calcium         ppm         ASTM D5185m         0         0         <1           Calcium         ppm         ASTM D5185m         1         0         0           Zinc         ppm         ASTM D5185m         50         106         117         106           Zinc         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         1         0           Sodium         ppm         ASTM D5185m         >20         <1         0         0           Pattassium         ppm         ASTM D5185m         >20                                                                                                                  | Cadmium          |               |              |            | 0           | 0           | 0           |
| Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         <1           Magnesium         ppm         ASTM D5185m         0         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         0         0         <1         0         2           Calcium         ppm         ASTM D5185m         1         0         0         3           Phosphorus         ppm         ASTM D5185m         0         0         3         3           Sulfur         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0         0           Sodium         ppm         ASTM D5185m         >20         <1         0         0         0           Vater         %         ASTM D5185m         >20         <1         0         0         0           Particles >4µm                                                                                                                        | ADDITIVES        |               | method       | limit/base | current     | history1    | history2    |
| Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m         0         0         <1           Magnesium         ppm         ASTM D5185m         0         0         <1           Calcium         ppm         ASTM D5185m         1         0         2           Phosphorus         ppm         ASTM D5185m         1         0         0           Zinc         ppm         ASTM D5185m         0         0         3           Sulfur         ppm         ASTM D5185m         0         0         3           Sulfur         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         imit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0         0           Sodium         ppm         ASTM D5185m         <20         <1         0         0           Vater         %         ASTM D6304         >0.01         0.004         0.004         0.001           pm Water         ppm         ASTM D7647 <th>Boron</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>0</th>                   | Boron            | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Marganese         ppm         ASTM D5185m         0         0         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Barium           | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Magnesium         ppm         ASTM D5185m         0         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Molybdenum       | ppm           | ASTM D5185m  |            | 0           | 0           | 0           |
| Magnesium         ppm         ASTM D5185m         0         0         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Manganese        | ppm           | ASTM D5185m  |            | 0           | 0           | <1          |
| Calcium         ppm         ASTM D5185m         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                | ppm           | ASTM D5185m  |            | 0           | 0           | <1          |
| Zinc         ppm         ASTM D5185m         0         0         3           Sulfur         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0           Sodium         ppm         ASTM D5185m         >15         <1         0         0           Potassium         ppm         ASTM D5185m         >20         <1         0         0           Vater         %         ASTM D5185m         >20         <1         0         0           Water         %         ASTM D5045         >0.01         0.004         0.001         0.004         0.001           ppm Water         ppm         ASTM D7647         1614         3866         2205           Particles >4µm         ASTM D7647         >2500         343         723         325           Particles >6µm         ASTM D7647         >20         343         723         5         5           Particles >14µm         ASTM D7647         >80         2         5         5                                                                                          | Calcium          | ppm           | ASTM D5185m  |            | <1          | 0           | 2           |
| Zinc         ppm         ASTM D5185m         0         0         0         3           Sulfur         ppm         ASTM D5185m         50         106         117         106           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0         0           Sodium         ppm         ASTM D5185m         >15         <1         0         0         0           Potassium         ppm         ASTM D5185m         >20         <1         0         0         0           Water         %         ASTM D5185m         >20         <1         0         0         0           ppm Water         ppm         ASTM D6304         >0.01         0.004         0.004         0.001           particles >4µm         ASTM D7647         1614         3866         2205           Particles >4µm         ASTM D7647         >2500         343         723         325           Particles >4µm         ASTM D7647         >320         14         26         15           Particles >21µm         ASTM D7647         >20                                                                                               | Phosphorus       | ppm           | ASTM D5185m  |            | 1           | 0           | 0           |
| CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1         <1         0         0           Sodium         ppm         ASTM D5185m         >15         <1         0         0         0           Potassium         ppm         ASTM D5185m         >20         <1         0         0         0           Water         %         ASTM D50804         >0.01         0.004         0.004         0.001           ppm Water         ppm         ASTM D6304         >100         45         49         0           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         1614         3866         2205           Particles >6µm         ASTM D7647         >2500         343         723         325           Particles >6µm         ASTM D7647         >80         2         5         5           Particles >38µm         ASTM D7647         >80         2         5         5           Particles >71µm         ASTM D7647         20         0         0                                                                        |                  |               | ASTM D5185m  |            | 0           | 0           | 3           |
| Silicon       ppm       ASTM D5185m       >15       <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sulfur           | ppm           | ASTM D5185m  | 50         | 106         | 117         | 106         |
| Sodium         ppm         ASTM D5185m         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CONTAMINANTS     | ;             | method       | limit/base | current     | history1    | history2    |
| Potassium         ppm         ASTM D5185m         >20         <1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Silicon          | ppm           | ASTM D5185m  | >15        | <1          | <1          | 0           |
| Water         %         ASTM D6304         >0.01         0.004         0.004         0.001           ppm Water         ppm         ASTM D6304         >100         45         49         0           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         1614         3866         2205           Particles >6µm         ASTM D7647         >2500         343         723         325           Particles >6µm         ASTM D7647         >320         14         26         15           Particles >21µm         ASTM D7647         >80         2         5         5           Particles >38µm         ASTM D7647         >20         0         0         0           Particles >71µm         ASTM D7647         >4         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                    | Sodium           | ppm           | ASTM D5185m  |            | <1          | 0           | 0           |
| ppm Water         ppm         ASTM D6304         >100         45         49         0           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         1614         3866         2205           Particles >6µm         ASTM D7647         >2500         343         723         325           Particles >14µm         ASTM D7647         >320         14         26         15           Particles >21µm         ASTM D7647         >80         2         5         5           Particles >21µm         ASTM D7647         >20         0         0         0           Particles >71µm         ASTM D7647         >4         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                                                                                                        | Potassium        | ppm           | ASTM D5185m  | >20        | <1          | 0           | 0           |
| FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         1614         3866         2205           Particles >6µm         ASTM D7647         1614         3866         2205           Particles >6µm         ASTM D7647         >2500         343         723         325           Particles >14µm         ASTM D7647         >320         14         26         15           Particles >21µm         ASTM D7647         >80         2         5         5           Particles >21µm         ASTM D7647         >20         0         0         0           Particles >38µm         ASTM D7647         >20         0         0         0           Particles >71µm         ASTM D7647         >4         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                              | Water            | %             | ASTM D6304   | >0.01      | 0.004       | 0.004       | 0.001       |
| Particles >4μm       ASTM D7647       1614       3866       2205         Particles >6μm       ASTM D7647       >2500       343       723       325         Particles >14μm       ASTM D7647       >320       14       26       15         Particles >21μm       ASTM D7647       >80       2       5       5         Particles >21μm       ASTM D7647       >20       0       0       0         Particles >38μm       ASTM D7647       >20       0       0       0         Particles >71μm       ASTM D7647       >4       0       0       0         Oil Cleanliness       ISO 4406 (c)       >/18/15       18/16/11       19/17/12       18/16/11         FLUID DEGRADATION       method       limit/base       current       history1       history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ppm Water        | ppm           | ASTM D6304   | >100       | 45          | 49          | 0           |
| Particles >6µm       ASTM D7647       >2500       343       723       325         Particles >14µm       ASTM D7647       >320       14       26       15         Particles >21µm       ASTM D7647       >80       2       5       5         Particles >21µm       ASTM D7647       >20       0       0       0         Particles >38µm       ASTM D7647       >20       0       0       0         Particles >71µm       ASTM D7647       >4       0       0       0         Oil Cleanliness       ISO 4406 (c)       >/18/15       18/16/11       19/17/12       18/16/11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FLUID CLEANLIN   | IESS          | method       | limit/base | current     | history1    | history2    |
| Particles >14µm       ASTM D7647       >320       14       26       15         Particles >21µm       ASTM D7647       >80       2       5       5         Particles >38µm       ASTM D7647       >20       0       0       0         Particles >38µm       ASTM D7647       >20       0       0       0         Particles >71µm       ASTM D7647       >4       0       0       0         Oil Cleanliness       ISO 4406 (c)       >/18/15       18/16/11       19/17/12       18/16/11         FLUID DEGRADATION       method       limit/base       current       history1       history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Particles >4µm   |               |              |            | 1614        |             | 2205        |
| Particles >21μm         ASTM D7647         >80         2         5         5           Particles >38μm         ASTM D7647         >20         0         0         0           Particles >371μm         ASTM D7647         >4         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                  |               |              | >2500      | 343         | 723         | 325         |
| Particles >38μm         ASTM D7647         >20         0         0         0           Particles >71μm         ASTM D7647         >4         0         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |               |              |            |             |             |             |
| Particles >71µm         ASTM D7647         >4         0         0         0           Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |               |              | >80        |             | 5           |             |
| Oil Cleanliness         ISO 4406 (c)         >/18/15         18/16/11         19/17/12         18/16/11           FLUID DEGRADATION         method         limit/base         current         history1         history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |               | ASTM D7647   | >20        |             | 0           | 0           |
| FLUID DEGRADATION method limit/base current history1 history2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |               | ASTM D7647   | >4         |             | 0           |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Oil Cleanliness  |               | ISO 4406 (c) | >/18/15    | 18/16/11    | 19/17/12    | 18/16/11    |
| Acid Number (AN)         mg KOH/g         ASTM D974         0.005         0.014         0.015         0.014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | FLUID DEGRADA    | TION          | method       | limit/base | current     | history1    | history2    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Acid Number (AN) | mg KOH/g      | ASTM D974    | 0.005      | 0.014       | 0.015       | 0.014       |

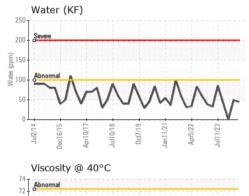
Contact/Location: BRUCE CHANDLER - TYSMONMO

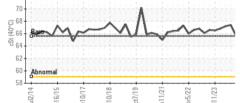


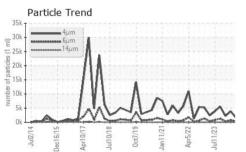
## **OIL ANALYSIS REPORT**



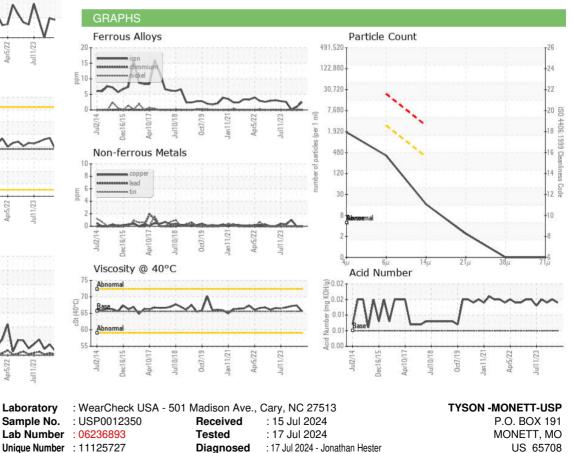








| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | 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       | 65.7    | 67.4     | 67.2     |
| SAMPLE IMAGES    | 6      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |
| Bottom           |        |           |            | 60)     |          |          |





Unique Number : 11125727 Certificate 12367

Test Package : IND 2

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: (417)235-3104 F: (417)235-9392

Contact: BRUCE CHANDLER

Report Id: TYSMONMO [WUSCAR] 06236893 (Generated: 07/17/2024 15:06:03) Rev: 1

Contact/Location: BRUCE CHANDLER - TYSMONMO