



## **PROBLEM SUMMARY**



#### Machine Id

PALFINGER 100453650

Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (--- GAL)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

## PROBLEMATIC TEST RESULTS

| Sample Status   |                    | SEVERE          |  |
|-----------------|--------------------|-----------------|--|
| Particles >4µm  | ASTM D7647 >5000   | ) 🔺 54924       |  |
| Particles >6µm  | ASTM D7647 >1300   | ) 🔺 4874        |  |
| Oil Cleanliness | ISO 4406 (c) >19/1 | 7/14 🔺 23/19/14 |  |

Customer Id: PALFOR Sample No.: WC0383177 Lab Number: 06178666 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

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

| RECOMMENDED ACTIONS  |        |      |         |  |  |  |
|----------------------|--------|------|---------|--|--|--|
| Action               | Status | Date | Done By | Description  |  |  |
| Change Filter        |        |      | ?       | We recommend you service the filters on this component.  |  |  |
| Resample             |        |      | ?       | Resample in 30-45 days to monitor this situation.  |  |  |
| Alert                |        |      | ?       | The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.  |  |  |
| Information Required |        |      | ?       | The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.  |  |  |
| Check Breathers      |        |      | ?       | The air breather requires service. If unrated, we recommend that you replace with a<br>suitable micron rated and/or desiccant air breather. If rated, we recommend that you<br>service/replace the breather. |  |  |
| Check Seals          |        |      | ?       | Check seals and/or filters for points of contaminant entry.  |  |  |

### Report Id: PALFOR [WUSCAR] 06178666 (Generated: 05/15/2024 13:13:45) Rev: 1

HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO  $\mathbf{X}$ 

Machine Id

# **PALFINGER 100453650**

Component Hydraulic System AW HYDRAULIC OIL ISO 32 (--- GAL)

### DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

### 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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

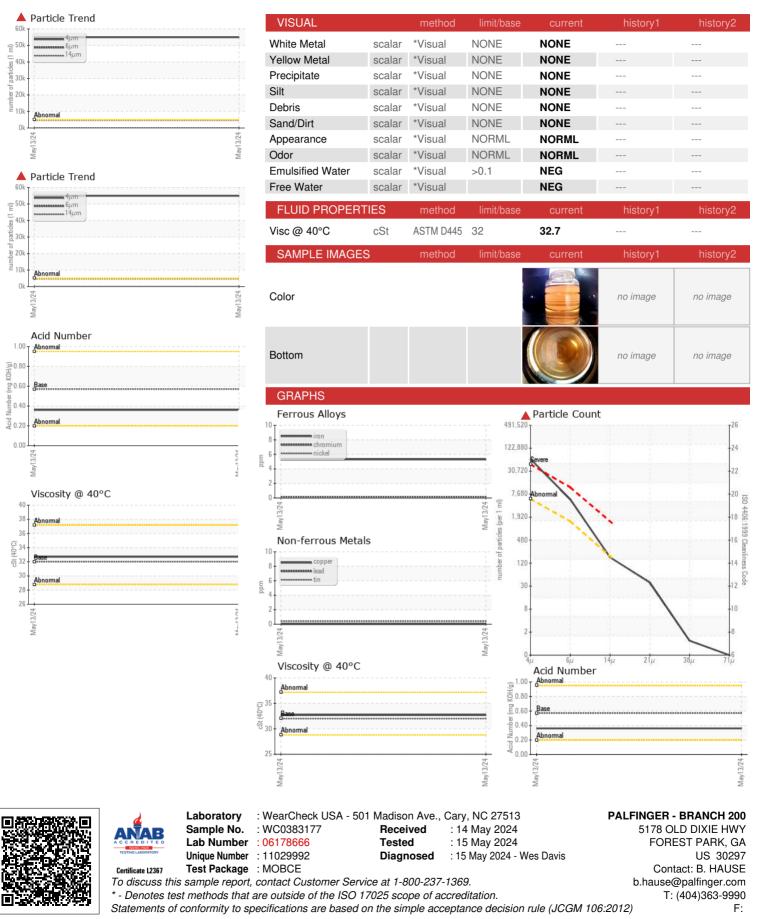
| Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         5         5             Vanadium         ppm         ASTM D5185m         5         2             Vanadium         ppm         ASTM D5185m         5         2 <td< th=""><th>SAMPLE INFORM</th><th>ATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>               | SAMPLE INFORM   | ATION | method          | limit/base | current         | history1 | history2     |
|--|-----------------|-------|-----------------|------------|-----------------|----------|--------------|
| Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Sample Status         Client Info         N/A             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             VEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >10         0             Machine ppm         ASTM 05185m         >10         0              Silver         ppm         ASTM 05185m         >10         0              Tianium         ppm         ASTM 05185m         >10         0              Gopper         ppm         ASTM 05185m         5         0   | Sample Number   |       | Client Info     |            | WC0383177       |          |              |
| Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 0588m         >10         0             Nickel         ppm         ASTM 0588m         >10         0             Lead         ppm         ASTM 0588m         >10         0             Vanadium         ppm         ASTM 0588m         >10         0             Vanadium         ppm         ASTM 0588m         >10         0             Vanadium         ppm         ASTM 0588m         5         5             Roron         ppm   | Sample Date     |       | Client Info     |            | 13 May 2024     |          |              |
| Oil Changed         Client Info         N/A             Sample Status         Imit/base         current         history1         history2           CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >.0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1  | Machine Age     | hrs   | Client Info     |            | 0               |          |              |
| Sample Status         SEVERE             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         5             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             ASTM D5185m         5         5               Manduim         ppm         ASTM D5185m         5         2  | Oil Age         | hrs   | Client Info     |            | 0               |          |              |
| CONTAMINATION         method         imit/base         current         history1         history2           Water         WC Method         >0.1         NEG             WATAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         5             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         <1   | Oil Changed     |       | Client Info     |            | N/A             |          |              |
| Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m<>20         5             Chromium         ppm         ASTM 05185m         >10         0             Nickel         ppm         ASTM 05185m         0         0             Silver         ppm         ASTM 05185m         0         0             ALuminum         ppm         ASTM 05185m         >10         0             Aduminum         ppm         ASTM 05185m         >10         0             Aduminum         ppm         ASTM 05185m         >10         0             Vanadium         ppm         ASTM 05185m         5         5             ADDITIVES         method         limit/base         current         history1         history2           Baron         ppm         ASTM 05185m         5         2 <td>Sample Status</td> <td></td> <td></td> <td></td> <td>SEVERE</td> <td></td> <td></td>                                  | Sample Status   |       |                 |            | SEVERE          |          |              |
| Water         WC Method         >0.1         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m<>20         5             Chromium         ppm         ASTM 05185m         >10         0             Nickel         ppm         ASTM 05185m         0         0             Silver         ppm         ASTM 05185m         0         0             ALuminum         ppm         ASTM 05185m         >10         0             Aduminum         ppm         ASTM 05185m         >10         0             Aduminum         ppm         ASTM 05185m         >10         0             Vanadium         ppm         ASTM 05185m         5         5             ADDITIVES         method         limit/base         current         history1         history2           Baron         ppm         ASTM 05185m         5         2 <td>CONTAMINATION</td> <td></td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td> | CONTAMINATION   |       | method          | limit/base | current         | history1 | history2     |
| Iron         ppm         ASTM D5185m         >20         5             Nickel         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         0         0             Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         <1   |                 |       | WC Method       | >0.1       | NEG             |          |              |
| Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         >10         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Aduminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         <1   | WEAR METALS     |       | method          | limit/base | current         | history1 | history2     |
| Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         >10         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         510         0             Lead         ppm         ASTM D5185m         >10         0             Aduminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         <1   | Iron            | ppm   | ASTM D5185m     | >20        | 5               |          |              |
| Nickel         ppm         ASTM D5185m         >10         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0         0             Aluminum         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >75         0             Copper         ppm         ASTM D5185m         >75         0             Vanadium         ppm         ASTM D5185m         >10         <1  |                 | • •   | ASTM D5185m     | >10        | <1              |          |              |
| Titanium       ppm       ASTM D5185m       0           Silver       ppm       ASTM D5185m       0           Aluminum       ppm       ASTM D5185m       >10       0           Aluminum       ppm       ASTM D5185m       >10       0           Copper       ppm       ASTM D5185m       >10       -1           Vanadium       ppm       ASTM D5185m       >75       0           ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       5       5           Molybdenum       ppm       ASTM D5185m       5       2           Maganese       ppm       ASTM D5185m       200       135           Magnesium       ppm       ASTM D5185m       200       1382           Phosphorus       ppm       ASTM D5185m       200       1382           Solifur       ppm       ASTM D5185m       20   | Nickel          | • •   | ASTM D5185m     | >10        | 0               |          |              |
| Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >75         0             Vanadium         ppm         ASTM D5185m         >10         0             Vanadium         ppm         ASTM D5185m         >10         0             Cadmium         ppm         ASTM D5185m         0              ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         2             Molybdenum         ppm         ASTM D5185m         5         2             Maganese         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         200         1382  | Titanium        |       | ASTM D5185m     |            |                 |          |              |
| Auminum         ppm         ASTM D5185m         >10         0             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         <1   |                 |       |                 |            |                 |          |              |
| Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >75         0             Vanadium         ppm         ASTM D5185m         >10         <1  |                 | • •   |                 | >10        |                 |          |              |
| Copper         ppm         ASTM D5185m         >75         0             Tin         ppm         ASTM D5185m         >10         <1  |                 |       |                 |            |                 |          |              |
| Tin       ppm       ASTM D5185m       >10       <1           Vanadium       ppm       ASTM D5185m       0           ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       5       5           ADDITIVES       method       limit/base       current       history1       history2         Boron       ppm       ASTM D5185m       5       2           Magnese       ppm       ASTM D5185m       5       2           Magnese       ppm       ASTM D5185m       200       135           Calcium       ppm       ASTM D5185m       200       135           Sulfur       ppm       ASTM D5185m       200       1382           Sulfur       ppm       ASTM D5185m       20       5           Sulfur       ppm       ASTM D5185m       20       5           Sulfur       ppm       ASTM D5185m       20       5  |                 |       |                 |            |                 |          |              |
| Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         5             Barium         ppm         ASTM D5185m         5         2             Manganese         ppm         ASTM D5185m         0              Magnesium         ppm         ASTM D5185m         25         16             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         300         272             Sulfur         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         >20         5             Soliton         ppm         ASTM D5185m         >20         5   | ••              |       |                 |            | -               |          |              |
| Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         5             Barium         ppm         ASTM D5185m         5         2             Malganese         ppm         ASTM D5185m         5         2             Magnesium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         200         135             Phosphorus         ppm         ASTM D5185m         200         1382             Sulfur         ppm         ASTM D5185m         200         1382             Solfur         ppm         ASTM D5185m         >20         5             Solfur         ppm         ASTM D5185m         >20         5             Solfur         ppm         ASTM D5185m         >20         5  |                 |       |                 | 210        |                 |          |              |
| ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         5  |                 | • •   |                 |            |                 |          |              |
| Boron         ppm         ASTM D5185m         5         5             Barium         ppm         ASTM D5185m         5         2             Molybdenum         ppm         ASTM D5185m         5         2             Manganese         ppm         ASTM D5185m         0              Magnesium         ppm         ASTM D5185m         25         16             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         300         272             Sulfur         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             Sodium         ppm         ASTM D5185m         >20         5             Potassium         ppm         ASTM D5185m         >20         <1   |                 | ррпп  | AOTINI DOTODIII |            | U               |          |              |
| Barium         ppm         ASTM D5185m         5         2             Molybdenum         ppm         ASTM D5185m         5         2             Manganese         ppm         ASTM D5185m         25         16             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         200         135             Zinc         ppm         ASTM D5185m         300         272             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Potassium         ppm         ASTM D5185m         >20         <1             Particles >4µm         ASTM D7647  | ADDITIVES       |       | method          | limit/base | current         | history1 | history2     |
| Molybdenum         ppm         ASTM D5185m         5         2             Manganese         ppm         ASTM D5185m         25         16             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         300         272             Zinc         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         <1  | Boron           | ppm   | ASTM D5185m     | 5          | 5               |          |              |
| Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         25         16             Calcium         ppm         ASTM D5185m         200         135             Calcium         ppm         ASTM D5185m         300         272             Zinc         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Potassium         ppm         ASTM D5185m         >20         <1  | Barium          | ppm   | ASTM D5185m     | 5          | 2               |          |              |
| Magnesium       ppm       ASTM D5185m       25       16          Calcium       ppm       ASTM D5185m       200       135           Phosphorus       ppm       ASTM D5185m       300       272           Zinc       ppm       ASTM D5185m       370       320           Sulfur       ppm       ASTM D5185m       2500       1382           CONTAMINANTS       method       limit/base       current       history1       history2         Silicon       ppm       ASTM D5185m       >20       5           Sodium       ppm       ASTM D5185m       >20       5           Potassium       ppm       ASTM D5185m       >20       <1           FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >5000       \$54924           Particles >6µm       ASTM D7647       >100       150           Particles >21µm       ASTM D7647       >10   | Molybdenum      | ppm   | ASTM D5185m     | 5          | 2               |          |              |
| Calcium         ppm         ASTM D5185m         200         135             Phosphorus         ppm         ASTM D5185m         300         272             Zinc         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         <1   | Manganese       | ppm   | ASTM D5185m     |            | 0               |          |              |
| Phosphorus         ppm         ASTM D5185m         300         272             Zinc         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         <1   | Magnesium       | ppm   | ASTM D5185m     | 25         | 16              |          |              |
| Zinc         ppm         ASTM D5185m         370         320             Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         <1  | Calcium         | ppm   | ASTM D5185m     | 200        | 135             |          |              |
| Sulfur         ppm         ASTM D5185m         2500         1382             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         <1   | Phosphorus      | ppm   | ASTM D5185m     | 300        | 272             |          |              |
| CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         5             Sodium         ppm         ASTM D5185m         >20         5             Potassium         ppm         ASTM D5185m         >20         <1   | Zinc            | ppm   | ASTM D5185m     | 370        | 320             |          |              |
| Silicon       ppm       ASTM D5185m       >20       5           Sodium       ppm       ASTM D5185m       1            Potassium       ppm       ASTM D5185m       >20       <1   | Sulfur          | ppm   | ASTM D5185m     | 2500       | 1382            |          |              |
| Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         >20         <1  | CONTAMINANTS    |       | method          | limit/base | current         | history1 | history2     |
| Potassium         ppm         ASTM D5185m         >20         <1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         \$54924             Particles >6µm         ASTM D7647         >1300         4874             Particles >6µm         ASTM D7647         >160         150             Particles >14µm         ASTM D7647         >160         150             Particles >21µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/19/14             FLUID DEGRADATION         method         limit/base         current         history1         history2   | Silicon         | ppm   | ASTM D5185m     | >20        | 5               |          |              |
| Potassium         ppm         ASTM D5185m         >20         <1             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         \$54924             Particles >6µm         ASTM D7647         >1300         4874             Particles >6µm         ASTM D7647         >160         150             Particles >14µm         ASTM D7647         >160         150             Particles >21µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/19/14             FLUID DEGRADATION         method         limit/base         current         history1         history2   |                 |       | ASTM D5185m     |            | 1               |          |              |
| Particles >4µm       ASTM D7647       >5000       ▲ 54924           Particles >6µm       ASTM D7647       >1300       ▲ 4874           Particles >14µm       ASTM D7647       >160       150           Particles >14µm       ASTM D7647       >40       33           Particles >21µm       ASTM D7647       >40       33           Particles >21µm       ASTM D7647       >10       1           Particles >38µm       ASTM D7647       >10       1           Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       23/19/14           FLUID DEGRADATION       method       limit/base       current       history1       history2   |                 |       |                 |            | <1              |          |              |
| Particles >6μm       ASTM D7647       >1300       ▲ 4874           Particles >14μm       ASTM D7647       >160       150           Particles >14μm       ASTM D7647       >40       33           Particles >21μm       ASTM D7647       >40       33           Particles >38μm       ASTM D7647       >10       1           Particles >38μm       ASTM D7647       >3       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       23/19/14           FLUID DEGRADATION       method       limit/base       current       history1       history2  | FLUID CLEANLINE | ESS   | method          | limit/base | current         | history1 | history2     |
| Particles >14µm       ASTM D7647       >160       150           Particles >21µm       ASTM D7647       >40       33            Particles >38µm       ASTM D7647       >10       1            Particles >38µm       ASTM D7647       >10       1            Particles >71µm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       23/19/14           FLUID DEGRADATION       method       limit/base       current       history1       history2   | Particles >4µm  |       | ASTM D7647      | >5000      | <b>54924</b>    |          |              |
| Particles >21μm         ASTM D7647         >40         33             Particles >38μm         ASTM D7647         >10         1             Particles >38μm         ASTM D7647         >10         1             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/19/14             FLUID DEGRADATION         method         limit/base         current         history1         history2  | Particles >6µm  |       | ASTM D7647      | >1300      | <u> </u>        |          |              |
| Particles >38μm         ASTM D7647         >10         1             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/19/14             FLUID DEGRADATION         method         limit/base         current         history1         history2   | Particles >14µm |       | ASTM D7647      | >160       | 150             |          |              |
| Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         23/19/14             FLUID DEGRADATION         method         limit/base         current         history1         history2  | Particles >21µm |       | ASTM D7647      | >40        | 33              |          |              |
| Oil Cleanliness       ISO 4406 (c) >19/17/14 ▲ 23/19/14           FLUID DEGRADATION       method       limit/base       current       history1       history2  | Particles >38µm |       | ASTM D7647      | >10        | 1               |          |              |
| Oil Cleanliness       ISO 4406 (c) >19/17/14 ▲ 23/19/14           FLUID DEGRADATION       method       limit/base       current       history1       history2  |                 |       | ASTM D7647      | >3         | 0               |          |              |
|  | Particles >71µm |       |                 |            |                 |          |              |
| Acid Number (AN) ma KOH/a ASTM D8045 0.57 0.36   |                 |       | ISO 4406 (c)    | >19/17/14  | <b>23/19/14</b> |          |              |
|  | Oil Cleanliness |       | ( )             |            |                 |          | <br>history2 |

Report Id: PALFOR [WUSCAR] 06178666 (Generated: 05/15/2024 13:13:46) Rev: 1

Contact/Location: B. HAUSE - PALFOR Page 3 of 4



# **OIL ANALYSIS REPORT**



Report Id: PALFOR [WUSCAR] 06178666 (Generated: 05/15/2024 13:13:46) Rev: 1

Contact/Location: B. HAUSE - PALFOR