



# OIL ANALYSIS REPORT

|                 |          |
|-----------------|----------|
| WEAR            | NORMAL   |
| CONTAMINATION   | ABNORMAL |
| FLUID CONDITION | NORMAL   |

Machine Id  
**PALFINGER 100400003**

Component  
**Hydraulic System**

Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | WC0881292   | ---      | ---      |
| Sample Date    |     | Client Info |           | 01 Jul 2024 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 3448        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 0           | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 1000        | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Changed | ---      | ---      |
| Filter Changed |     | Client Info |           | Changed     | ---      | ---      |
| Sample Status  |     |             |           | ABNORMAL    | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >20  | 6    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <1   | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <1   | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >10  | 1    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Copper       | ppm    | ASTM D5185m | >75  | <1   | --- | --- |
| Tin          | ppm    | ASTM D5185m | >10  | 0    | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

## CONTAMINATION

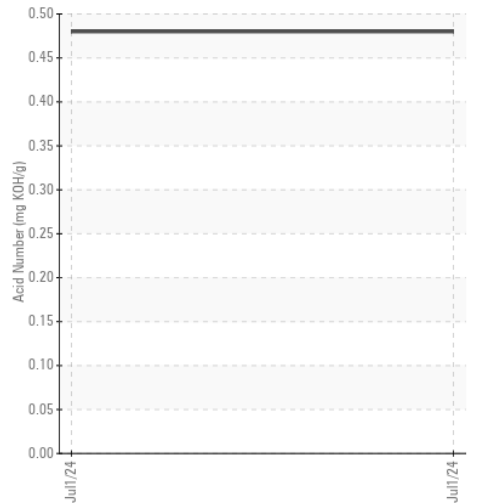
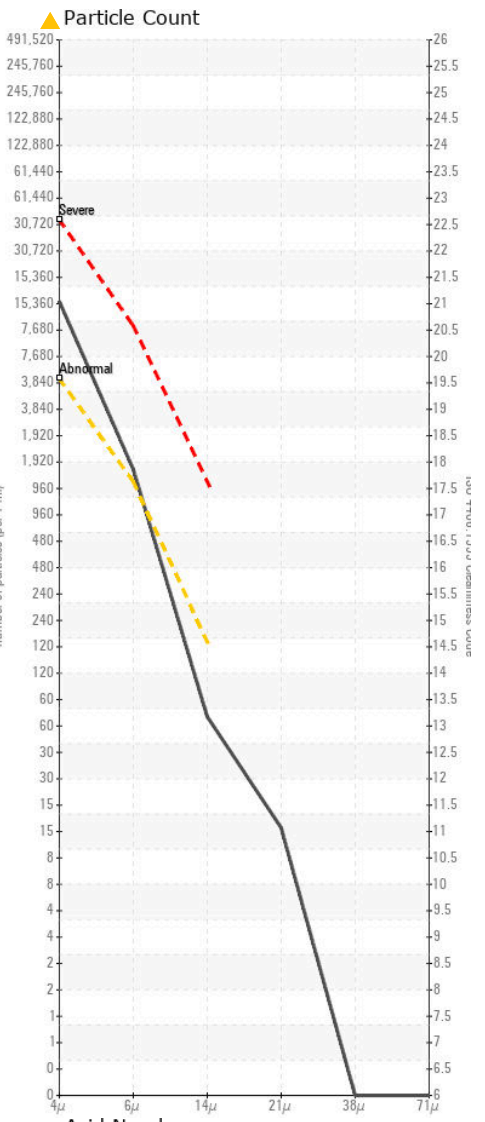
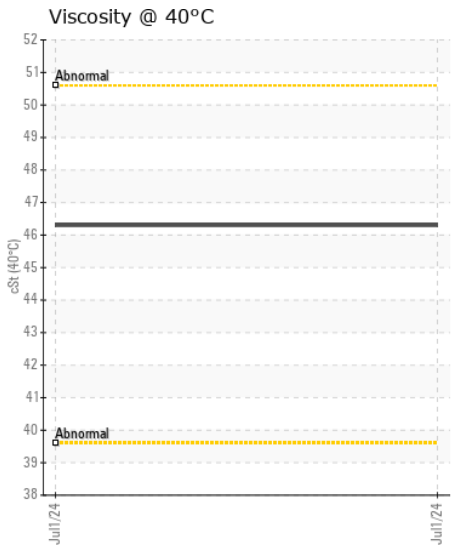
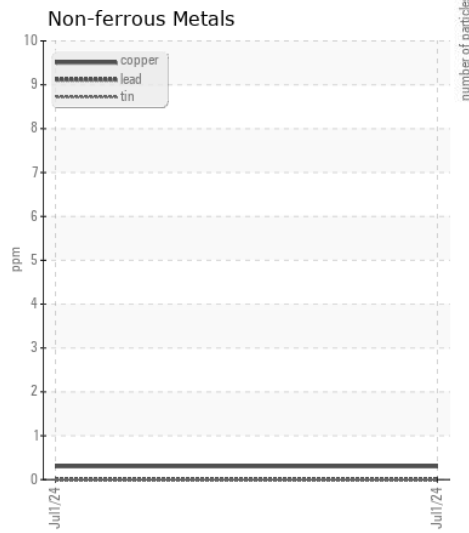
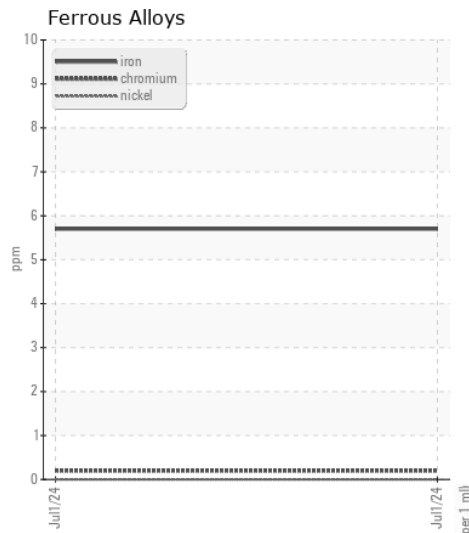
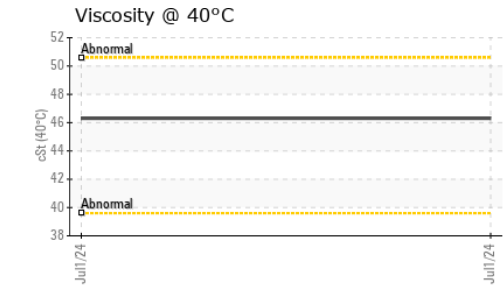
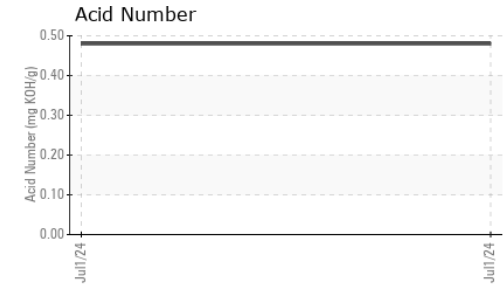
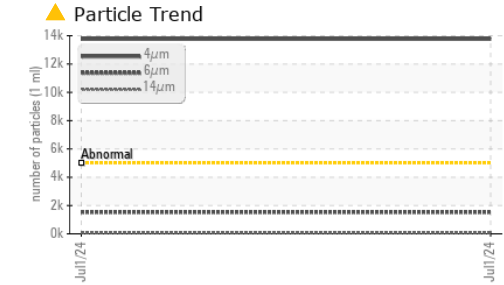
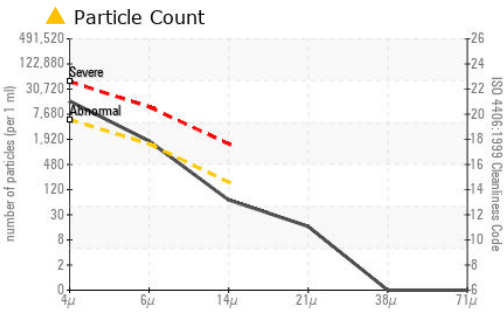
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |            |     |     |
|------------------|--------|--------------|-----------|------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | 2          | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | 2          | --- | --- |
| Water            |        | WC Method    | >0.1      | NEG        | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | ▲ 13761    | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | ● 1528     | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | 60         | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | 14         | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | 0          | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | 0          | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | ▲ 21/18/13 | --- | --- |
| Silt             | scalar | *Visual      | NONE      | NONE       | --- | --- |
| Debris           | scalar | *Visual      | NONE      | NONE       | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | NONE       | --- | --- |
| Appearance       | scalar | *Visual      | NORML     | NORML      | --- | --- |
| Odor             | scalar | *Visual      | NORML     | NORML      | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | NEG        | --- | --- |

## 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.

|                  |          |             |  |      |     |     |
|------------------|----------|-------------|--|------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |  | 0    | --- | --- |
| Boron            | ppm      | ASTM D5185m |  | 13   | --- | --- |
| Barium           | ppm      | ASTM D5185m |  | 0    | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |  | 6    | --- | --- |
| Manganese        | ppm      | ASTM D5185m |  | 0    | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |  | 41   | --- | --- |
| Calcium          | ppm      | ASTM D5185m |  | 318  | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |  | 355  | --- | --- |
| Zinc             | ppm      | ASTM D5185m |  | 442  | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |  | 1267 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |  | 0.48 | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   |  | 46.3 | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0881292  
**Lab Number** : 06230737  
**Unique Number** : 11114230  
**Test Package** : CONST

**Received** : 08 Jul 2024  
**Tested** : 10 Jul 2024  
**Diagnosed** : 10 Jul 2024 - Wes Davis

**PALFINGER**  
 771 BUSINESS PARK BLVD  
 WINTER GARDEN, FL  
 US 34787  
 Contact: DENIS PINNOCK

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

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

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

T:  
F: