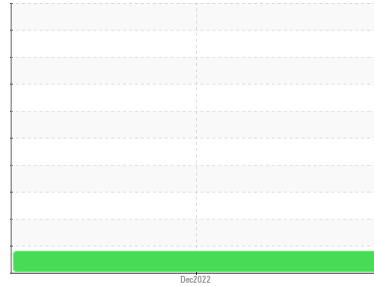




# PROBLEM SUMMARY

Sample Rating Trend



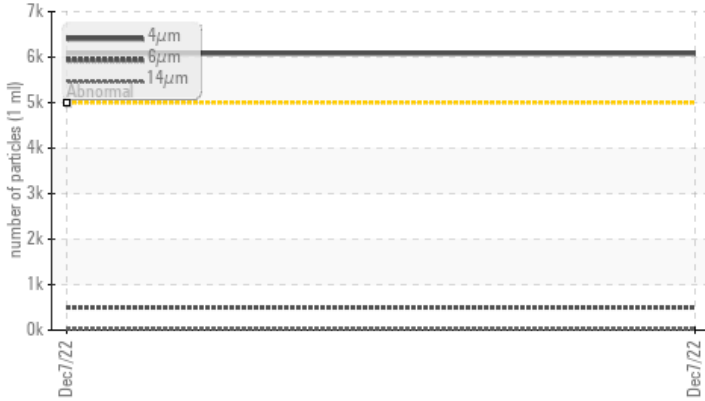
ISO



Machine Id  
**PALFINGER 100714393**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

|                 |              |           |                  |     |     |
|-----------------|--------------|-----------|------------------|-----|-----|
| Sample Status   |              |           | <b>ATTENTION</b> | --- | --- |
| Particles >4µm  | ASTM D7647   | >5000     | ▲ 6081           | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ 20/16/12       | --- | --- |

Customer Id: PALJACNJ  
 Sample No.: WC0695630  
 Lab Number: 05721948  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

## RECOMMENDED ACTIONS

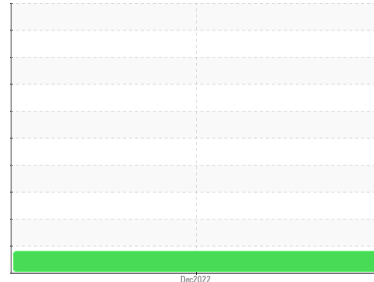
*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**PALFINGER 100714393**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

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

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1 | history2 |
|---------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | <b>WC0695630</b>   | ---      | ---      |
| Sample Date   | Client Info | <b>07 Dec 2022</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info        | <b>0</b> | ---      |
| Oil Age       | hrs         | Client Info        | <b>0</b> | ---      |
| Oil Changed   | Client Info | <b>N/A</b>         | ---      | ---      |
| Sample Status |             | <b>ATTENTION</b>   | ---      | ---      |

## WEAR METALS

| method   | limit/base | current         | history1     | history2 |
|----------|------------|-----------------|--------------|----------|
| Iron     | ppm        | ASTM D5185m >20 | <b>1</b>     | ---      |
| Chromium | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | ---      |
| Nickel   | ppm        | ASTM D5185m >10 | <b>0</b>     | ---      |
| Titanium | ppm        | ASTM D5185m     | <b>0</b>     | ---      |
| Silver   | ppm        | ASTM D5185m     | <b>&lt;1</b> | ---      |
| Aluminum | ppm        | ASTM D5185m >10 | <b>0</b>     | ---      |
| Lead     | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | ---      |
| Copper   | ppm        | ASTM D5185m >75 | <b>&lt;1</b> | ---      |
| Tin      | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | ---      |
| Vanadium | ppm        | ASTM D5185m     | <b>0</b>     | ---      |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | ---      |

## ADDITIVES

| method     | limit/base | current          | history1     | history2 |
|------------|------------|------------------|--------------|----------|
| Boron      | ppm        | ASTM D5185m 5    | <b>0</b>     | ---      |
| Barium     | ppm        | ASTM D5185m 5    | <b>&lt;1</b> | ---      |
| Molybdenum | ppm        | ASTM D5185m 5    | <b>&lt;1</b> | ---      |
| Manganese  | ppm        | ASTM D5185m      | <b>0</b>     | ---      |
| Magnesium  | ppm        | ASTM D5185m 25   | <b>3</b>     | ---      |
| Calcium    | ppm        | ASTM D5185m 200  | <b>61</b>    | ---      |
| Phosphorus | ppm        | ASTM D5185m 300  | <b>342</b>   | ---      |
| Zinc       | ppm        | ASTM D5185m 370  | <b>447</b>   | ---      |
| Sulfur     | ppm        | ASTM D5185m 2500 | <b>1232</b>  | ---      |

## CONTAMINANTS

| method    | limit/base | current         | history1     | history2 |
|-----------|------------|-----------------|--------------|----------|
| Silicon   | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | ---      |
| Sodium    | ppm        | ASTM D5185m     | <b>&lt;1</b> | ---      |
| Potassium | ppm        | ASTM D5185m >20 | <b>0</b>     | ---      |

## FLUID CLEANLINESS

| method          | limit/base   | current   | history1          | history2 |
|-----------------|--------------|-----------|-------------------|----------|
| Particles >4µm  | ASTM D7647   | >5000     | <b>▲ 6081</b>     | ---      |
| Particles >6µm  | ASTM D7647   | >1300     | <b>499</b>        | ---      |
| Particles >14µm | ASTM D7647   | >160      | <b>26</b>         | ---      |
| Particles >21µm | ASTM D7647   | >40       | <b>6</b>          | ---      |
| Particles >38µm | ASTM D7647   | >10       | <b>0</b>          | ---      |
| Particles >71µm | ASTM D7647   | >3        | <b>0</b>          | ---      |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | <b>▲ 20/16/12</b> | ---      |

## FLUID DEGRADATION

| method           | limit/base | current         | history1    | history2 |
|------------------|------------|-----------------|-------------|----------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 0.57 | <b>0.33</b> | ---      |

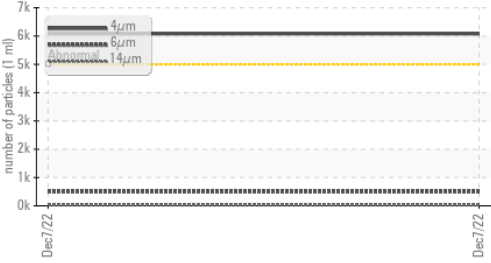


# OIL ANALYSIS REPORT

▲ Particle Trend



▲ Particle Trend



Acid Number



Viscosity @ 40°C



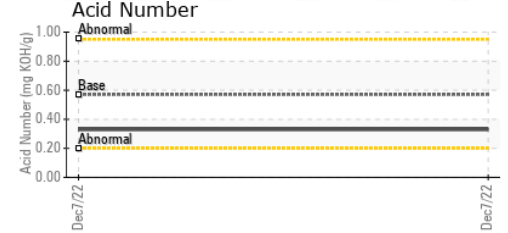
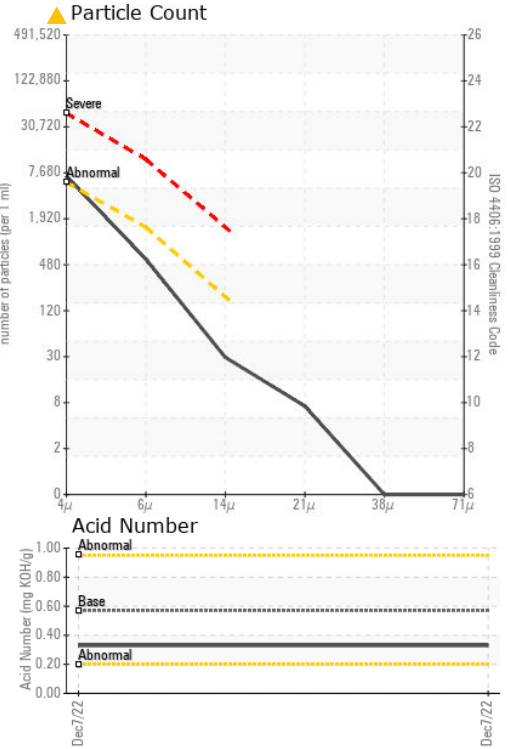
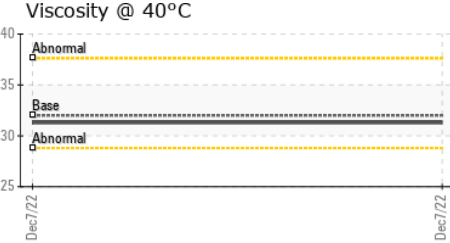
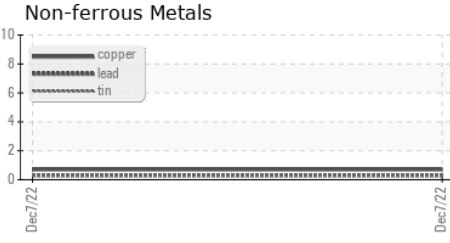
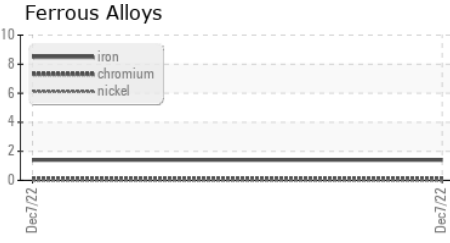
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      | --- |
| 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      | ---      | --- |
| Free Water       | scalar | *Visual    |         | NEG      | ---      | --- |

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 32 | 31.3    | ---      | ---      |

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

|        |  |  |  |          |          |
|--------|--|--|--|----------|----------|
| Color  |  |  |  | no image | no image |
| Bottom |  |  |  | no image | no image |

**GRAPHS**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0695630 **Received** : 20 Dec 2022  
**Lab Number** : 05721948 **Diagnosed** : 21 Dec 2022  
**Unique Number** : 10266529 **Diagnostician** : Don Baldrige  
**Test Package** : CONST

**PALFINGER - BRANCH 410**  
 632 CEDAR SWAMP RD  
 JACKSON, NJ  
 US 08527  
 Contact: DON DRESS  
 d.dress@palfinger.com  
 T:  
 F:

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)