

# **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id

# **PALFINGER 100717857**

Component Hydraulic System

**AW HYDRAULIC OIL ISO 46 (--- GAL)** 

## Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm.

All component wear rates are normal.

## Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

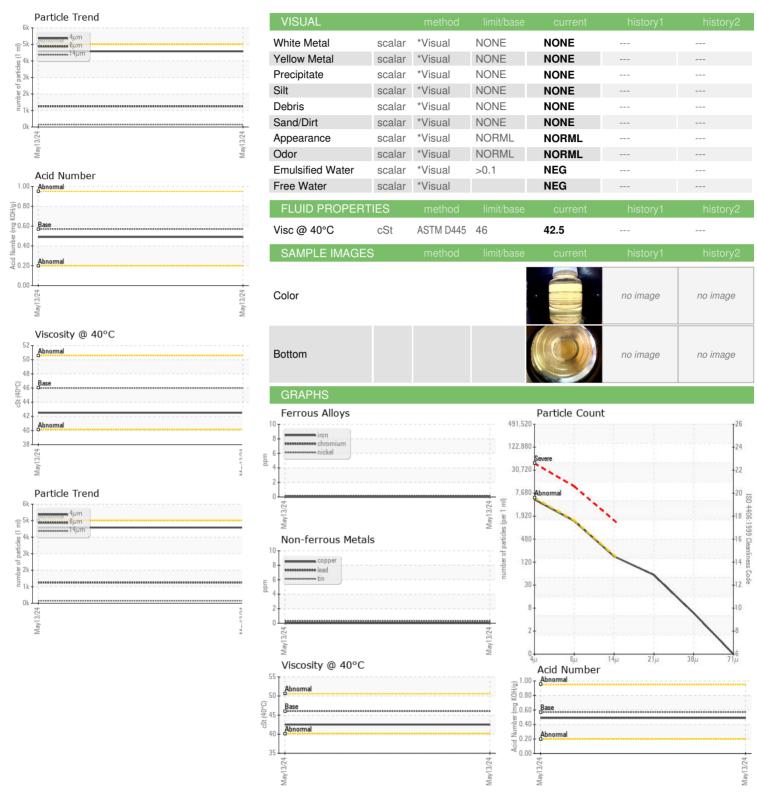
## **Fluid Condition**

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

|   |  |  | ,   | May/2024   |                   |                   |
|---|--|--|---|--|-------------------|-------------------|
|   |  |  | ,   | vidy2024   |                   |                   |
| SAMPLE INFOR  | MATION   | method   | limit/base  | current  | history1          | history2          |
| Sample Number   |  | Client Info  |   | WC0383178  |                   |                   |
| Sample Date   |  | Client Info  |   | 13 May 2024  |                   |                   |
| Machine Age   | hrs  | Client Info  |   | 0  |                   |                   |
| Oil Age   | hrs  | Client Info  |   | 0  |                   |                   |
| Oil Changed   |  | Client Info  |   | N/A  |                   |                   |
| Sample Status   |  |  |   | NORMAL   |                   |                   |
| CONTAMINATIO  | N  | 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   | 0  |                   |                   |
| Chromium  | ppm  | ASTM D5185m  | >10   | <1   |                   |                   |
| Nickel  | ppm  | ASTM D5185m  | >10   | 0  |                   |                   |
| Titanium  | ppm  | ASTM D5185m  |   | 0  |                   |                   |
| Silver  | ppm  | ASTM D5185m  |   | 0  |                   |                   |
| Aluminum  | ppm  | ASTM D5185m  | >10   | 0  |                   |                   |
| Lead  | ppm  | ASTM D5185m  | >10   | 0  |                   |                   |
| Copper  | ppm  | ASTM D5185m  | >75   | 0  |                   |                   |
| Tin   | ppm  | ASTM D5185m  | >10   | <1   |                   |                   |
| Vanadium  | ppm  | ASTM D5185m  |   | 0  |                   |                   |
| Cadmium   | ppm  | ASTM D5185m  |   | 0  |                   |                   |
| ADDITIVES   |  | method   | limit/base  | current  | history1          | history2          |
|   |  |  |   |  | ,                 |                   |
| Boron   | ppm  | ASTM D5185m  | 5   | 0  |                   |                   |
| Boron<br>Barium   | ppm  | ASTM D5185m<br>ASTM D5185m   | 5   | 0<br>1   |                   |                   |
|   |  |  |   |  |                   |                   |
| Barium  | ppm  | ASTM D5185m  | 5   | 1  |                   |                   |
| Barium<br>Molybdenum  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m   | 5   | 1<br>0   |                   |                   |
| Barium<br>Molybdenum<br>Manganese   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5   | 1<br>0<br>0  |                   |                   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium  | ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>25  | 1<br>0<br>0<br>8   |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium   | ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>25<br>200   | 1<br>0<br>0<br>8<br>54   |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>25<br>200<br>300  | 1<br>0<br>0<br>8<br>54<br>340  |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370   | 1<br>0<br>0<br>8<br>54<br>340<br>410                                     |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>25<br>200<br>300<br>370<br>2500   | 1<br>0<br>0<br>8<br>54<br>340<br>410                                     |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 5<br>5<br>25<br>200<br>300<br>370<br>2500   | 1<br>0<br>0<br>8<br>54<br>340<br>410<br>1110                             |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370<br>2500   | 1<br>0<br>0<br>8<br>54<br>340<br>410<br>1110<br>current                  |                   |                   |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium  | ppm              | ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20  | 1<br>0<br>0<br>8<br>54<br>340<br>410<br>1110<br>current<br><1            |                   | history2          |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium  | ppm              | ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20  | 1<br>0<br>0<br>8<br>54<br>340<br>410<br>1110<br>current<br><1<br><1      |                   | history2          |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN   | ppm              | ASTM D5185m MSTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  | 5<br>5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20  | 1<br>0<br>0<br>8<br>54<br>340<br>410<br>1110<br>current<br><1<br><1<br>0 |                   | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIF Particles >4µm Particles >14µm  | ppm              | ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base   | 1 0 0 8 8 54 340 410 1110 current <1 <1 0 current 4579 1252 150          |                   | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIft Particles >4µm Particles >14µm Particles >21µm                               | ppm              | ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300                       | 1 0 0 8 54 340 410 1110 current <1 <1 0 current 4579 1252                | history1 history1 | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIF Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm | ppm              | ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647          | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300<br>>160               | 1 0 0 8 54 340 410 1110 current <1 <1 0 0 current 4579 1252 150 49 5     |                   | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIF Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm | ppm              | ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647                                   | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300<br>>160<br>>40        | 1 0 0 8 54 340 410 1110 current <1 <1 0 0 current 4579 1252 150 49       |                   | history2 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium  FLUID CLEANLIF Particles >4µm Particles >6µm Particles >21µm Particles >38µm               | ppm              | ASTM D5185m  MEthod ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 5<br>5<br>25<br>200<br>300<br>370<br>2500<br>limit/base<br>>20<br>>20<br>limit/base<br>>5000<br>>1300<br>>160<br>>40<br>>10 | 1 0 0 8 54 340 410 1110 current <1 <1 0 0 current 4579 1252 150 49 5     |                   | history2 history2 |



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

Lab Number : 06178665 Unique Number : 11029991

: WC0383178 Test Package : MOBCE

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 May 2024 **Tested** : 15 May 2024

Diagnosed : 15 May 2024 - Wes Davis **PALFINGER - BRANCH 200** 5178 OLD DIXIE HWY FOREST PARK, GA US 30297 Contact: B. HAUSE

b.hause@palfinger.com T: (404)363-9990

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)