

# WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

#### Machine Id **PIERCE TOWER 11** Component **Hydraulic System** Fluid **AW HYDRAULIC OIL ISO 68 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### WEAR

All component wear rates are normal.

## CONTAMINATION

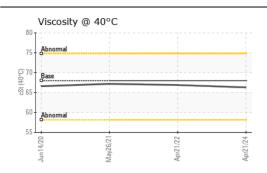
There is a moderate amount of visible silt present in the sample.

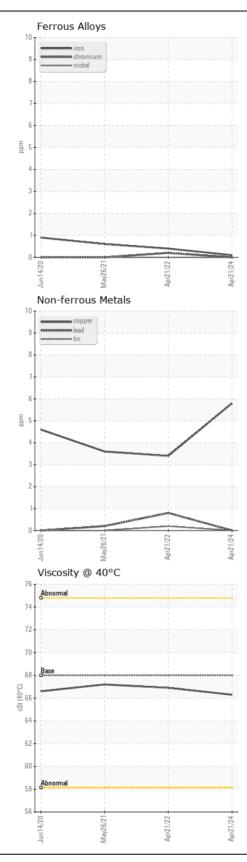
# FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| Test  |   |  |   |  |  |   |
|---|---|--|---|--|--|---|
| 1631  | UOM   | Method   | Limit/Abn   | Current  | History1   | History2  |
| Sample Number   |   | Client Info  |   | WC0930953  | WC0684011  | WC0572797   |
| Sample Date   |   | Client Info  |   | 21 Apr 2024  | 21 Apr 2022  | 26 May 2021   |
| Machine Age   | hrs   | Client Info  |   | 0  | 0  | 0   |
| Oil Age   | hrs   | Client Info  |   | 0  | 0  | 0   |
| Filter Age  | hrs   | Client Info  |   | 0  | 0  | 0   |
| Oil Changed   |   | Client Info  |   | N/A  | Not Changd   | N/A   |
| Filter Changed  |   | Client Info  |   | N/A  | Not Changd   | N/A   |
| Sample Status   |   |  |   | ABNORMAL   | NORMAL   | ABNORMAL  |
| Iron  | ppm   | ASTM D5185m  | >20   | <1   | <1   | <1  |
| Chromium  | ppm   | ASTM D5185m  | >10   | 0  | <1   | 0   |
| Nickel  | ppm   | ASTM D5185m  | >10   | 0  | 0  | 0   |
| Titanium  | ppm   | ASTM D5185m  | 210   | 0  | <1   | 0   |
| Silver  | ppm   | ASTM D5185m  |   | 0  | <1   | <1  |
| Aluminum  | ppm   | ASTM D5185m  | >10   | 0  | 0  | <1  |
| Lead  | ppm   | ASTM D5185m  | >10   | 0  | <1   | <1  |
| Copper  | ppm   | ASTM D5185m  | >75   | 6  | 3  | 4   |
| Tin   | ppm   | ASTM D5185m  | >10   | 0  | <1   | 0   |
| Vanadium  | ppm   | ASTM D5185m  |   | 0  | <1   | 0   |
| White Metal   | scalar  | *Visual  | NONE  | NONE   | NONE   | ▲ MODER   |
| Yellow Metal  | scalar  | *Visual  | NONE  | NONE   | NONE   | NONE  |
|   |   |  |   |  |  |   |
| Silicon   | ppm   | ASTM D5185m  | >20   | 1  | 2  | <1  |
| Potassium   | ppm   | ASTM D5185m  | >20   | <1   | 7  | 0   |
| Water   |   | WC Method  | >0.1  | NEG  | NEG  | NEG   |
| Silt  | scalar  | *Visual  | NONE  | A MODER  | NONE   | NONE  |
|   |   |  |   |  |  | NONE  |
| Debris  | scalar  | *Visual  | NONE  | NONE   | LIGHT  | ▲ MODER   |
| Sand/Dirt   | scalar  | *Visual  | NONE  | NONE   | NONE   | MODER<br>NONE   |
| Sand/Dirt<br>Appearance   | scalar<br>scalar  | *Visual<br>*Visual   | NONE  | NONE   | NONE   | MODER<br>NONE<br>NORML  |
| Sand/Dirt<br>Appearance<br>Odor   | scalar<br>scalar<br>scalar  | *Visual<br>*Visual<br>*Visual  | NONE<br>NORML<br>NORML  | NONE<br>NORML<br>NORML   | NONE<br>NORML<br>NORML   | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> </ul>   |
| Sand/Dirt<br>Appearance   | scalar<br>scalar  | *Visual<br>*Visual   | NONE  | NONE   | NONE   | MODER<br>NONE<br>NORML  |
| Sand/Dirt<br>Appearance<br>Odor   | scalar<br>scalar<br>scalar  | *Visual<br>*Visual<br>*Visual  | NONE<br>NORML<br>NORML  | NONE<br>NORML<br>NORML   | NONE<br>NORML<br>NORML   | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> </ul>   |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water   | scalar<br>scalar<br>scalar<br>scalar  | *Visual<br>*Visual<br>*Visual<br>*Visual   | NONE<br>NORML<br>NORML  | NONE<br>NORML<br>NORML<br>NEG  | NONE<br>NORML<br>NORML<br>NEG  | MODER<br>NONE<br>NORML<br>NORML<br>0.2%   |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium   | scalar<br>scalar<br>scalar<br>scalar<br>ppm                                 | *Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m  | NONE<br>NORML<br>NORML<br>>0.1  | NONE<br>NORML<br>NORML<br>NEG<br>2   | NONE<br>NORML<br>NORML<br>NEG<br>3   | MODER<br>NONE<br>NORML<br>0.2%  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron  | scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                          | *Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m  | NONE<br>NORML<br>NORML<br>>0.1  | NONE<br>NORML<br>NORML<br>NEG<br>2<br>0  | NONE<br>NORML<br>NORML<br>NEG<br>3<br><1                                     | MODER<br>NONE<br>NORML<br>0.2%<br>1<br>1  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium  | scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm                   | *Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | NONE<br>NORML<br>NORML<br>>0.1<br>5<br>5                                    | NONE<br>NORML<br>NORML<br>NEG<br>2<br>0<br>0   | NONE<br>NORML<br>NORML<br>NEG<br>3<br><1<br>0                                | MODER<br>NONE<br>NORML<br>0.2%<br>1<br>1<br>1<br>0  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum                                      | scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm                   | *Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | NONE<br>NORML<br>NORML<br>>0.1<br>5<br>5                                    | NONE<br>NORML<br>NORML<br>NEG<br>2<br>0<br>0<br>0  | NONE<br>NORML<br>NORML<br>NEG<br>3<br><1<br>0<br><1                          | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>0.2%</li> <li>1</li> <li>1</li> <li>0</li> <li>&lt;1</li> </ul>  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese                         | scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm            | *Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                                   | NONE<br>NORML<br>NORML<br>>0.1<br>5<br>5<br>5<br>5                          | NORML<br>NORML<br>NEG<br>2<br>0<br>0<br>0<br>0<br>0  | NONE<br>NORML<br>NEG<br>3<br><1<br>0<br><1<br>0                              | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>0.2%</li> <li>1</li> <li>1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>&lt;1</li> <li>0</li> </ul>                         |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium            | scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | *Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                               | NONE<br>NORML<br>NORML<br>>0.1<br>5<br>5<br>5<br>5<br>25                    | NORML<br>NORML<br>NEG<br>2<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | NONE<br>NORML<br>NEG<br>3<br><1<br>0<br><1<br>0<br><1<br>0<br>3              | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>0.2%</li> <li>1</li> <li>1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>1</li> </ul>              |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Malybdenum<br>Manganese<br>Magnesium<br>Calcium | scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | *Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | NONE<br>NORML<br>NORML<br>>0.1<br>5<br>5<br>5<br>5<br>2<br>2<br>2<br>0<br>0 | NORML<br>NORML<br>NEG<br>2<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | NONE<br>NORML<br>NEG<br>3<br><1<br>0<br><1<br>0<br><1<br>0<br>3<br>71        | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>0.2%</li> <li>1</li> <li>1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>109</li> </ul>                           |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium | scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | *Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | NONE<br>NORML<br>>0.1<br>5<br>5<br>5<br>5<br>25<br>25<br>200<br>300         | NONE<br>NORML<br>NEG<br>2<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>5578                                       | NONE<br>NORML<br>NEG<br>3<br><1<br>0<br><1<br>0<br><1<br>0<br>3<br>71<br>483 | <ul> <li>MODER</li> <li>NONE</li> <li>NORML</li> <li>0.2%</li> <li>1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>&lt;1</li> <li>0</li> <li>1</li> <li>0</li> <li>639</li> </ul> |

Submitted By: RANDY PRICE









Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0930953 Received : 10 May 2024 12730 CHAMPION FORREST DRIVE Lab Number : 06176355 Tested : 13 May 2024 HOUSTON, TX : 14 May 2024 - Don Baldridge Unique Number : 11022408 Diagnosed US 77066 Test Package : FLEET Contact: EDGAR HILLAND HARDY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. hilland.hardy@caufd@com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (281)444-2014 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (281)444-1524 Submitted By: RANDY PRICE Page 2 of 2