

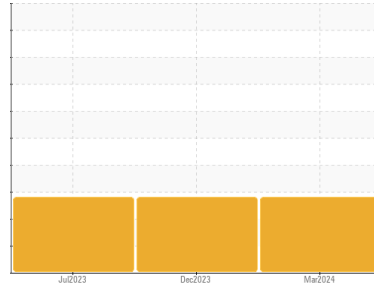


OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Area
[187637-N2STV4W]
 Machine Id
BT 5165 VHP2
 Component
Pump Hydraulic System
 Fluid
MOBIL DTE 25 (15 GAL)



DIAGNOSIS

Recommendation

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

Wear

The iron level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates 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 | | PH06131397 | PH06034128 | PH05938843 |
| Sample Date | Client Info | | 11 Mar 2024 | 12 Dec 2023 | 27 Jul 2023 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | ABNORMAL | ABNORMAL | ATTENTION |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.05 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | ▲ 49 | ▲ 52 | ▲ 35 |
| Chromium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 2 | 1 | <1 |
| Lead | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >20 | 1 | <1 | <1 |
| Tin | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 123 | 139 | 124 |
| Phosphorus | ppm | ASTM D5185m | 491 | 514 | 490 |
| Zinc | ppm | ASTM D5185m | 682 | 796 | 666 |
| Sulfur | ppm | ASTM D5185m | 6960 | 8542 | 7258 |

CONTAMINANTS

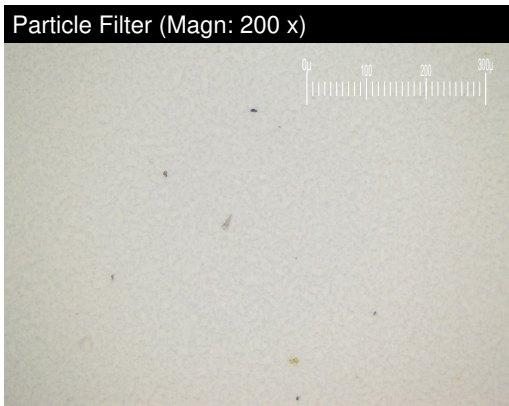
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 2 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | 3 |
| Potassium | ppm | ASTM D5185m >20 | 1 | 1 | 0 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 | >640 | ▲ 1700 | ● 905 | ● 841 |
| Particles >6µm | ASTM D7647 | >160 | ▲ 825 | ▲ 324 | ● 270 |
| Particles >14µm | ASTM D7647 | >20 | ▲ 94 | ▲ 42 | ● 36 |
| Particles >21µm | ASTM D7647 | >4 | ▲ 21 | ● 10 | ● 9 |
| Particles >38µm | ASTM D7647 | >3 | 2 | 1 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >16/14/11 | ▲ 18/17/14 | ▲ 17/16/13 | ● 17/15/12 |

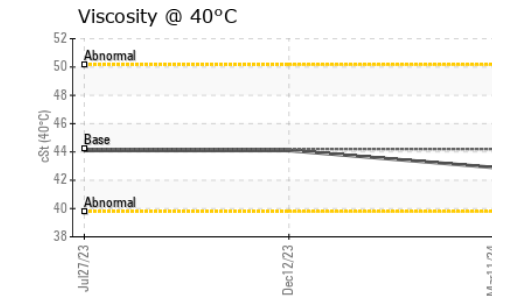
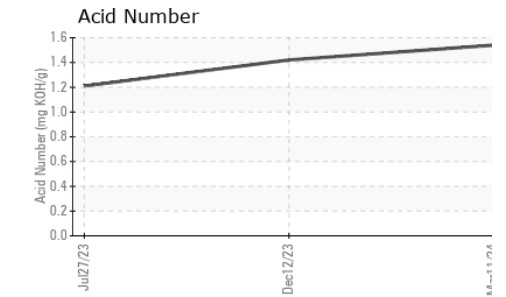
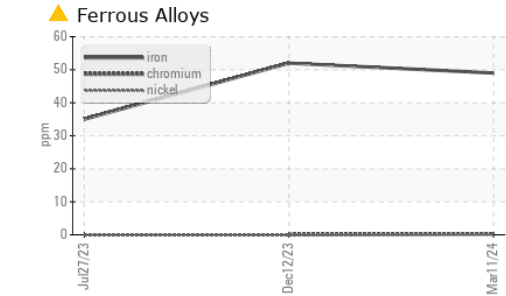
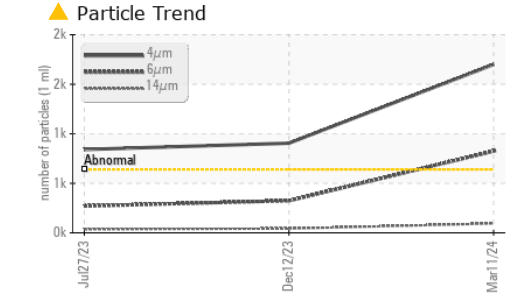
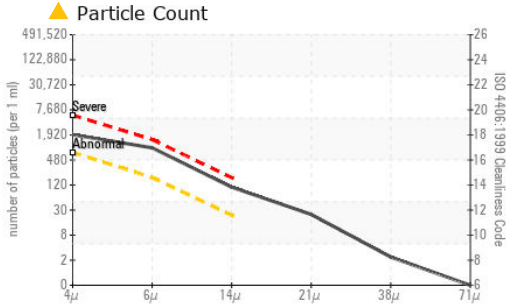
FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.54 | 1.42 | 1.21 |





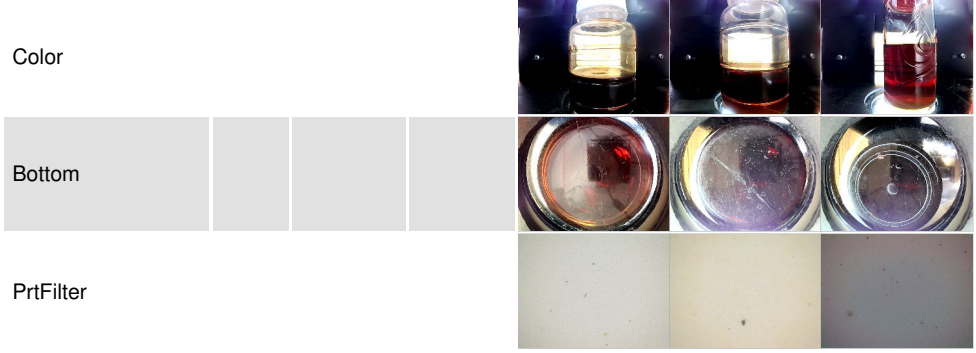
OIL ANALYSIS REPORT



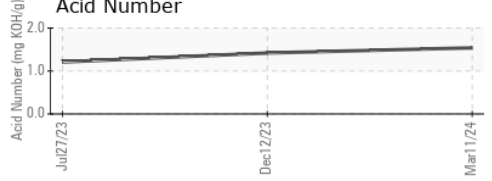
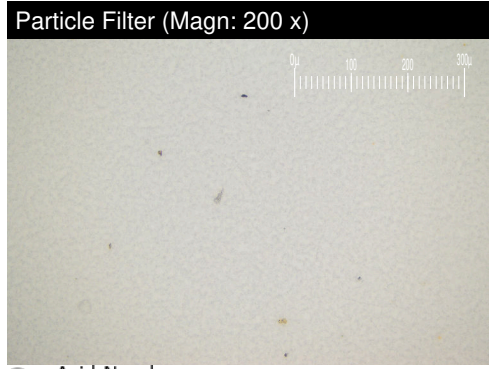
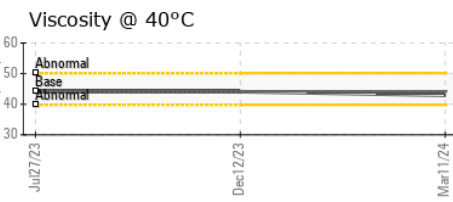
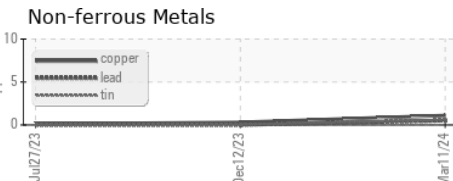
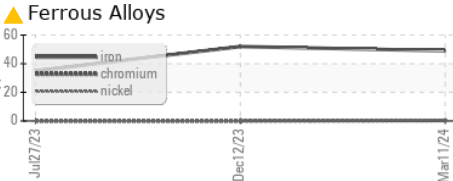
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 44.2 | 42.9 | 44.1 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH06131397 **Received** : 27 Mar 2024
Lab Number : **06131397** **Tested** : 02 Apr 2024
Unique Number : 10950862 **Diagnosed** : 02 Apr 2024 - Jonathan Hester
Test Package : PLANT (Additional Tests: PrtFilter)

MICROPORT ORTHOPEDICS INC
 5677 AIRLINE RD
 ARLINGTON, TN
 US 38002
 Contact: GARY HINES
 gary.hines@ortho.microport.com
 T: (901)831-6578
 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)