



OIL ANALYSIS REPORT

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

Machine Id
AW 46
 Component
New (Unused) Oil
 Fluid
{not provided} (--- QTS)

RECOMMENDATION

This is a baseline read-out on the submitted sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | DC0033723 | DC0033603 | DC0033961 |
| Sample Date | | Client Info | | 03 Jul 2024 | 19 Jun 2024 | 28 May 2024 |
| 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 | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

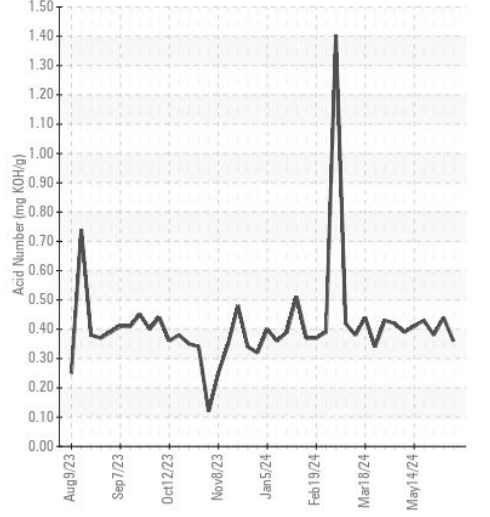
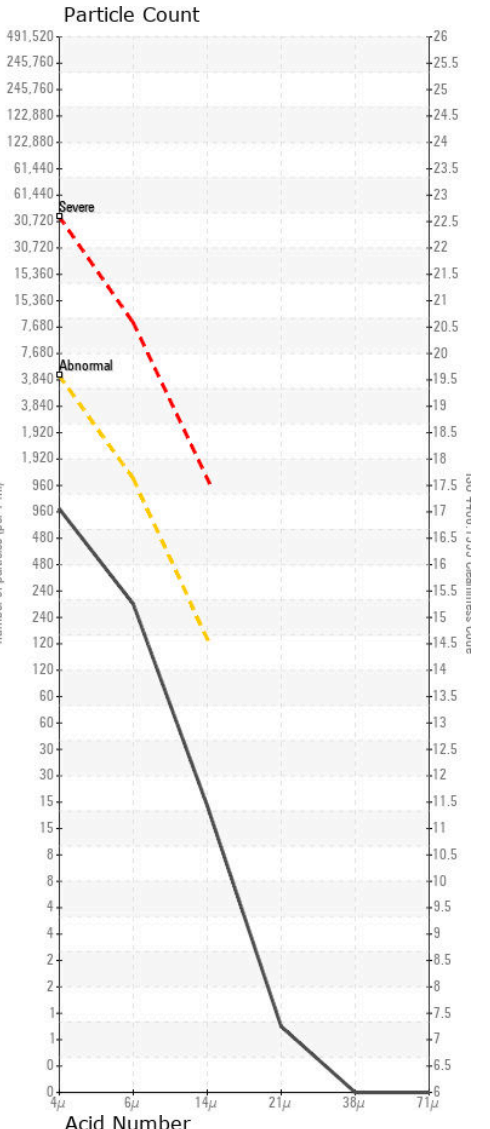
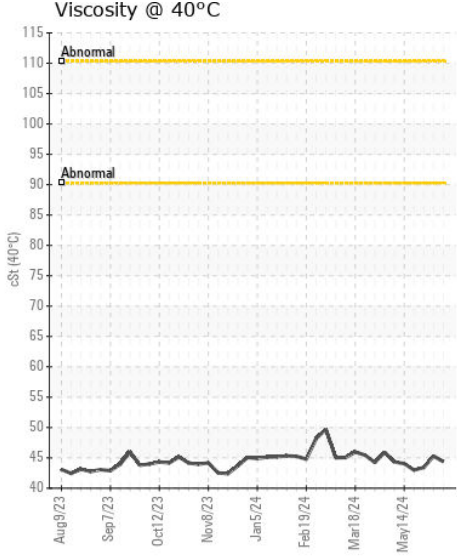
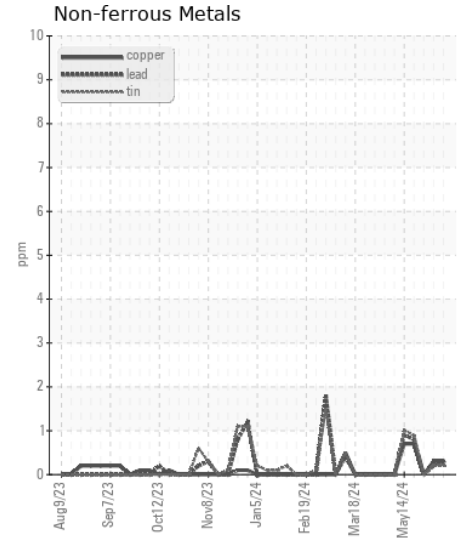
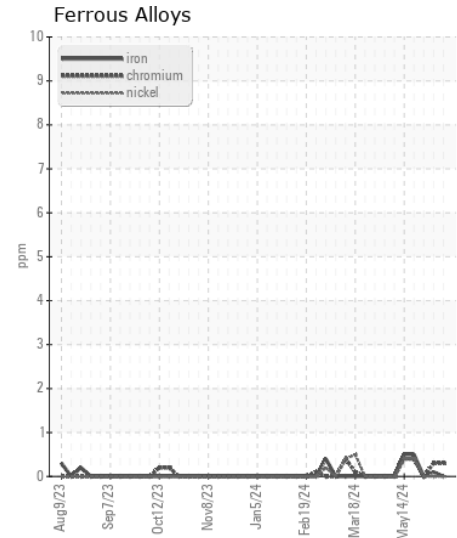
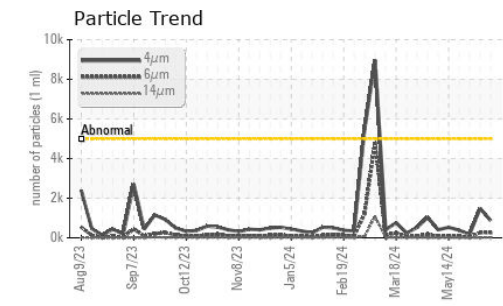
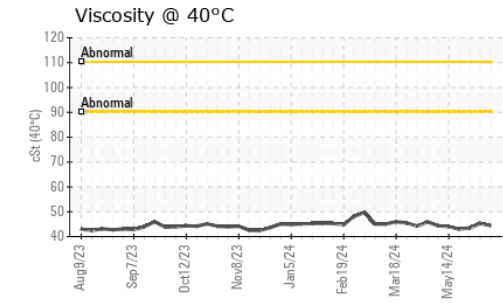
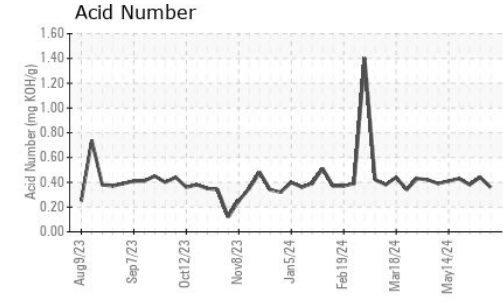
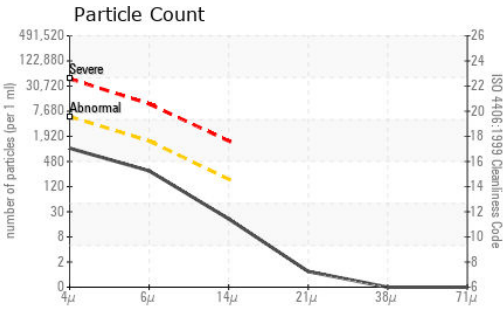
| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Chromium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | | 3 | 3 | 0 |
| Lead | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Tin | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|---------|
| Silicon | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 0 |
| Water | | WC Method | | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >5000 | 875 | 1484 | 175 |
| Particles >6µm | | ASTM D7647 | >1300 | 252 | 266 | 34 |
| Particles >14µm | | ASTM D7647 | >160 | 18 | 9 | 3 |
| Particles >21µm | | ASTM D7647 | >40 | 1 | 0 | 0 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 17/15/11 | 18/15/10 | 15/12/9 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | | NEG | NEG | NEG |

FLUID CONDITION

| | | | | | | |
|----------------------|----------|-------------|--|--------------|-------|-------|
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 3 |
| Boron | ppm | ASTM D5185m | | <1 | 6 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 89 | 86 | 89 |
| Calcium | ppm | ASTM D5185m | | 63 | 232 | 92 |
| Phosphorus | ppm | ASTM D5185m | | 282 | 325 | 307 |
| Zinc | ppm | ASTM D5185m | | 368 | 421 | 381 |
| Sulfur | ppm | ASTM D5185m | | 6451 | 5633 | 6295 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.36 | 0.44 | 0.38 |
| Visc @ 40°C | cSt | ASTM D445 | | 44.39 | 45.29 | 43.42 |
| Visc @ 100°C | cSt | ASTM D445 | | 6.99 | 7.13 | 6.91 |
| Viscosity Index (VI) | Scale | ASTM D2270 | | 115 | 116 | 116 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0033723
Lab Number : 06232682
Unique Number : 11116175
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI)

THE UNITED OIL COMPANY - OPERATIONS
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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)