



OIL ANALYSIS REPORT

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

Machine Id
ALS 15W40/307
 Component
New (Unused) Oil
 Fluid
{not provided} (--- LTR)

RECOMMENDATION

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

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | DC0035590 | DC0035591 | DC0031271 |
| Sample Date | | Client Info | | 14 Mar 2024 | 14 Mar 2024 | 01 Mar 2024 |
| Machine Age | mls | Client Info | | 0 | 0 | 0 |
| Oil Age | mls | Client Info | | 0 | 0 | 0 |
| Filter Age | mls | 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 |

WEAR

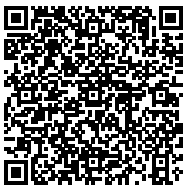
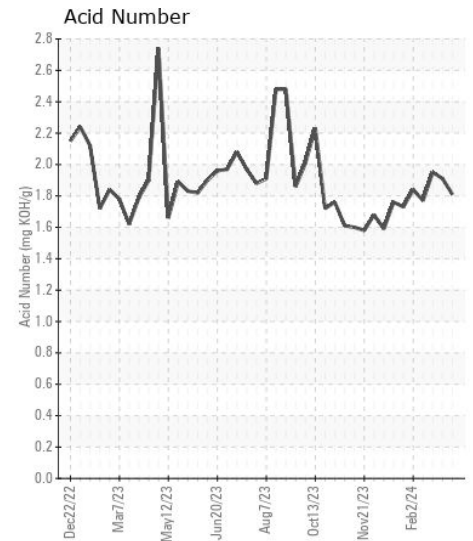
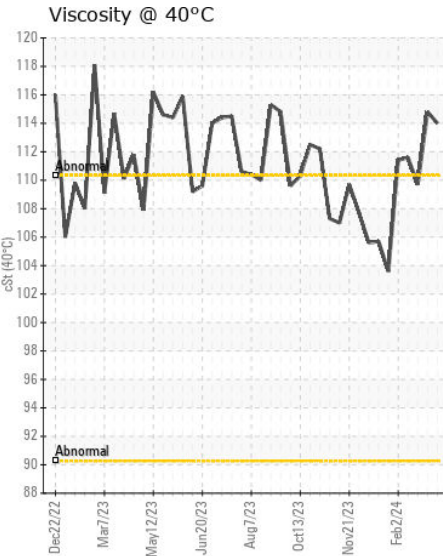
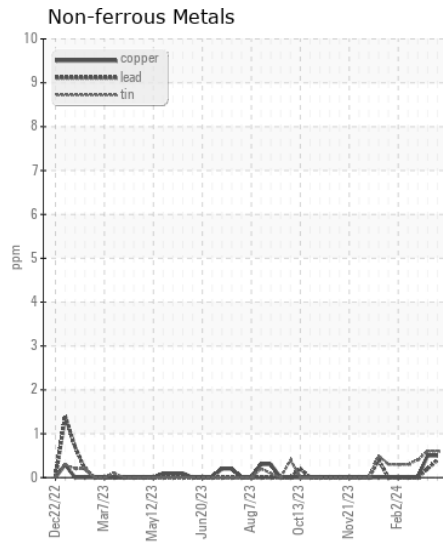
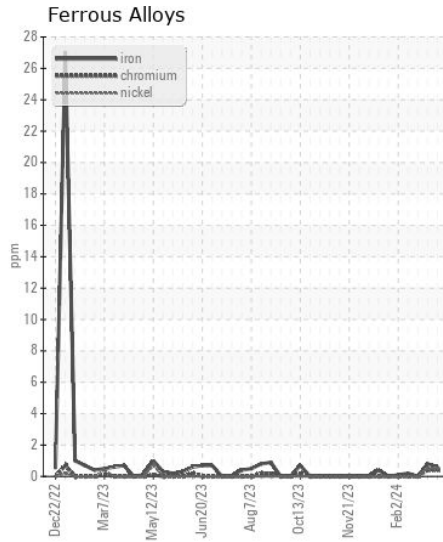
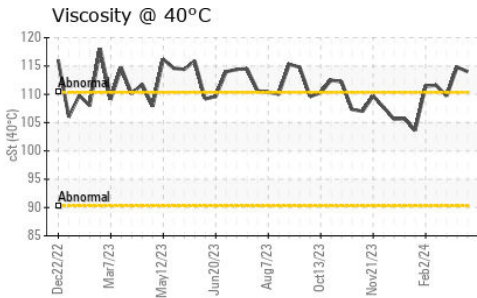
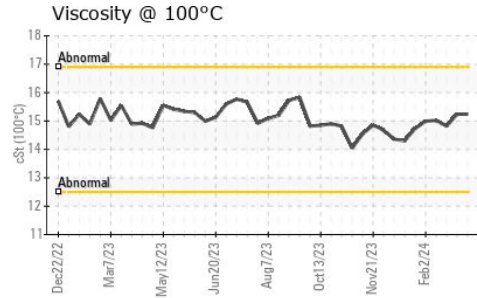
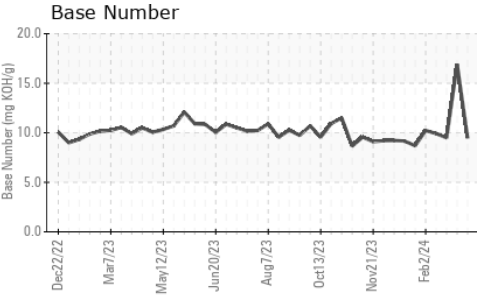
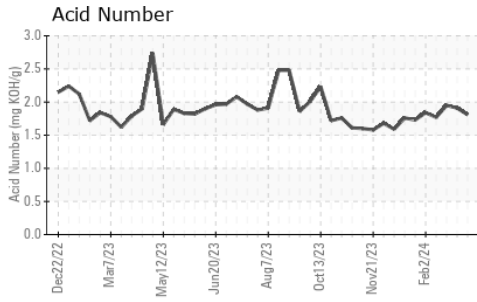
| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Chromium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | | 3 | 2 | <1 |
| Lead | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Tin | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | | 7 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <1 | 0 |
| Water | | WC Method | | NEG | NEG | NEG |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | 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 | | 3 | 1 | <1 |
| Boron | ppm | ASTM D5185m | | 12 | 9 | 10 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 76 | 59 | 50 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 1261 | 881 | 866 |
| Calcium | ppm | ASTM D5185m | | 1529 | 1153 | 1003 |
| Phosphorus | ppm | ASTM D5185m | | 1247 | 864 | 966 |
| Zinc | ppm | ASTM D5185m | | 1682 | 1165 | 1144 |
| Sulfur | ppm | ASTM D5185m | | 4597 | 2886 | 3863 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.81 | 1.91 | 1.95 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.47 | 16.91 | 9.49 |
| Visc @ 40°C | cSt | ASTM D445 | | 114.0 | 114.8 | 109.7 |
| Visc @ 100°C | cSt | ASTM D445 | | 15.24 | 15.24 | 14.82 |
| Viscosity Index (VI) | Scale | ASTM D2270 | | 139 | 138 | 139 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035590
Lab Number : 06124453
Unique Number : 10938604
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, Viscosity)

THE UNITED OIL COMPANY - OPERATIONS
 4405 E. BALTIMORE ST
 BALTIMORE, MD
 US 21224
 Contact: MICHELLE HORNING

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)

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