MOB II WEAR CHECK

# OIL ANALYSIS REPORT

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

Machine Id
## BLUE BIRD 247
Component
## Diesel Engine
Fluid
## DIESEL ENGINE OIL SAE 15W40 (--- QTS)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

Metal levels are typical for a new component breaking in.

## CONTAMINATION

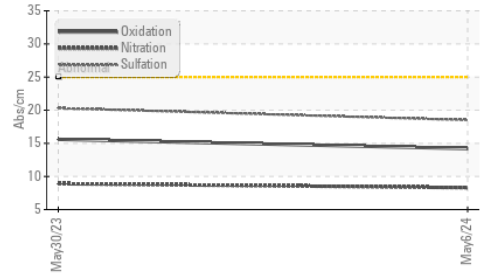
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## FLUID CONDITION

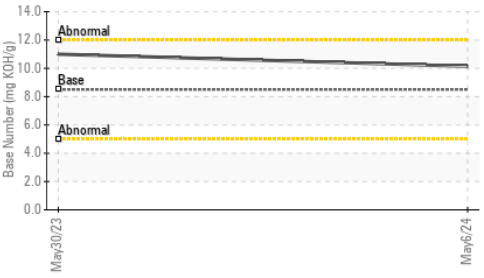
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | RW0004979 | RW0004208 | --- |
| Sample Date | | Client Info | | 06 May 2024 | 30 May 2023 | --- |
| Machine Age | mls | Client Info | | 48000 | 24000 | --- |
| Oil Age | mls | Client Info | | 12000 | 12000 | --- |
| Filter Age | mls | Client Info | | 12000 | 12000 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |
| Iron | ppm | ASTM D5185m | >100 | 26 | 46 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 2 | --- |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 10 | 22 | --- |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185m | >330 | 0 | 19 | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Silicon | ppm | ASTM D5185m | >25 | 5 | 10 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 16 | 52 | --- |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.6 | 0.6 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.3 | 8.9 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.5 | 20.3 | --- |
| 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 | >0.2 | NEG | NEG | --- |
| Sodium | ppm | ASTM D5185m | >158 | 1 | 3 | --- |
| Boron | ppm | ASTM D5185m | 250 | 7 | 9 | --- |
| Barium | ppm | ASTM D5185m | 10 | 1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 57 | 56 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 857 | 884 | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1088 | 1177 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1025 | 960 | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1165 | 1180 | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3306 | 3427 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.2 | 15.6 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 10.14 | 11.00 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 12.7 | 12.6 | --- |

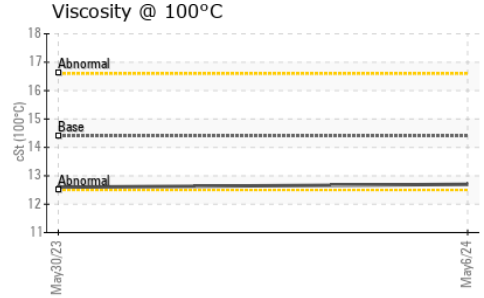
FT-IR (Direct Trend)



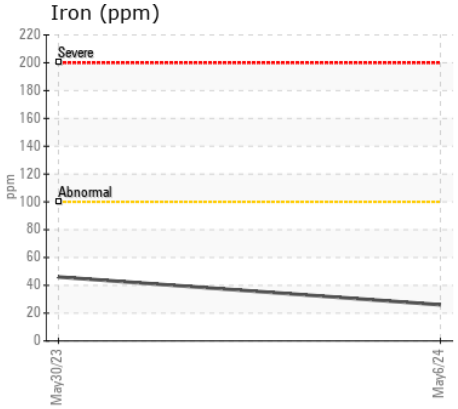

Base Number



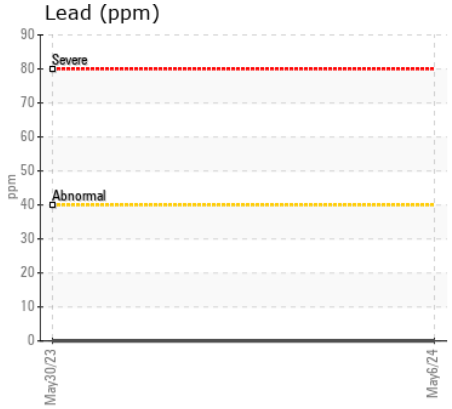

Viscosity @ 100°C



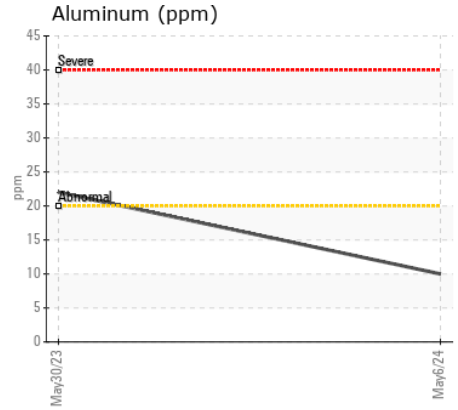

Iron (ppm)



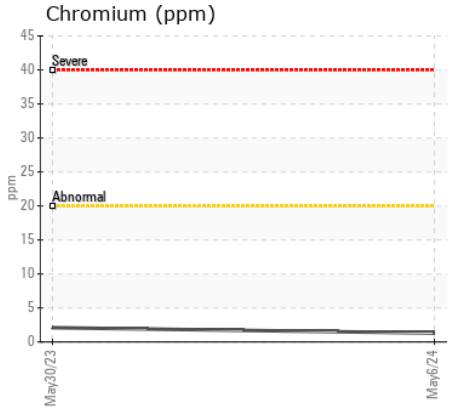

Lead (ppm)



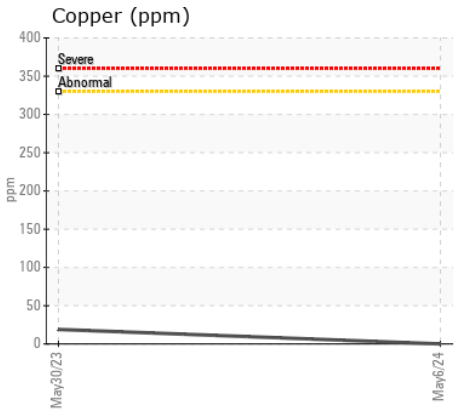

Aluminum (ppm)



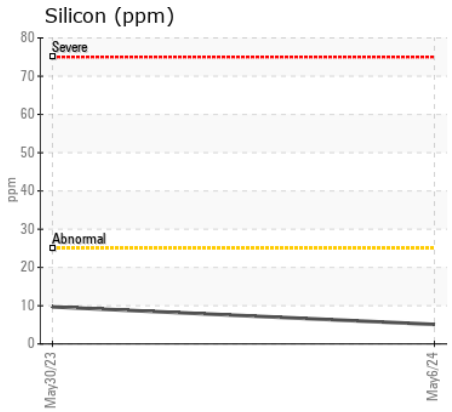

Chromium (ppm)



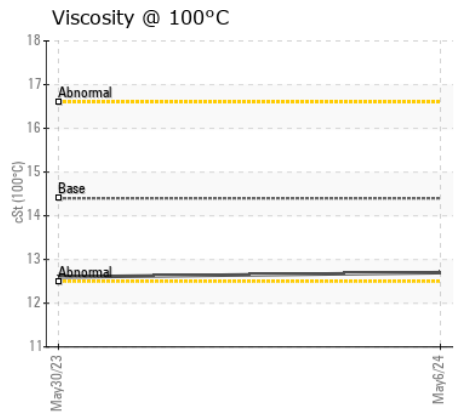

Copper (ppm)



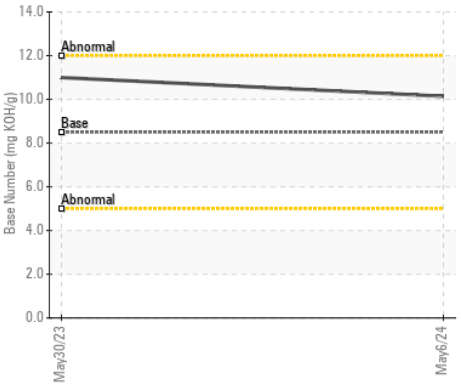

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RW0004979
**Lab Number** : 06177877
**Unique Number** : 11029203
**Test Package** : MOB 2

**Received** : 13 May 2024
**Tested** : 14 May 2024
**Diagnosed** : 14 May 2024 - Wes Davis

*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)*

**WEST BRANCH/ROSE CITY SCHOOLS**
224 THOMAS
WEST BRANCH, MI
US 48661
Contact: BUTCH HART
hartb@wbrc.k12.mi.us
T: (989)343-2240
F: (989)343-2249