# OIL ANALYSIS REPORT

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

Machine Id
**BOMAG 54142**
Component
**Diesel Engine**
Fluid
**CHEVRON 15W40 (4 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

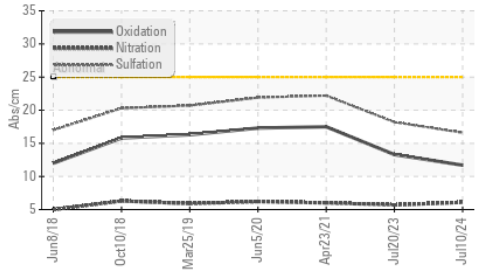
There is no indication of any contamination in the oil.

## FLUID CONDITION

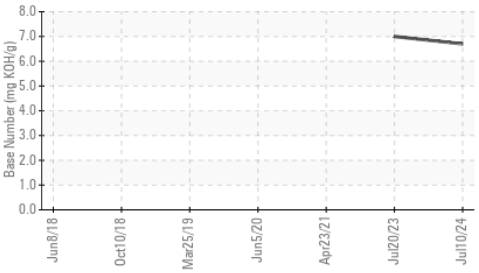
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0857129 | WC0809882 | WC0551184 |
| Sample Date | | Client Info | | 10 Jul 2024 | 20 Jul 2023 | 23 Apr 2021 |
| Machine Age | hrs | Client Info | | 710 | 1558 | 1266 |
| Oil Age | hrs | Client Info | | 200 | 292 | 546 |
| Filter Age | hrs | Client Info | | 200 | 292 | 546 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | 4 | 12 | 11 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | 2 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 4 | 3 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 5 | 10 | 13 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 2 |
| Fuel | % | ASTM D3524 | >5 | <1.0 | ▲ 3.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.1 | 5.7 | 6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.6 | 18.2 | 22.2 |
| 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 | >0.2 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | >50 | <1 | 2 | 1 |
| Boron | ppm | ASTM D5185m | | 132 | 296 | 416 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 75 | 65 | 118 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 165 | 407 | 548 |
| Calcium | ppm | ASTM D5185m | | 1770 | 1406 | 1422 |
| Phosphorus | ppm | ASTM D5185m | | 939 | 894 | 709 |
| Zinc | ppm | ASTM D5185m | | 1069 | 1137 | 885 |
| Sulfur | ppm | ASTM D5185m | | 3226 | ▲ 3574 | 2466 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 11.7 | 13.3 | 17.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 6.7 | 7.0 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 12.3 | 11.9 | 12.7 |

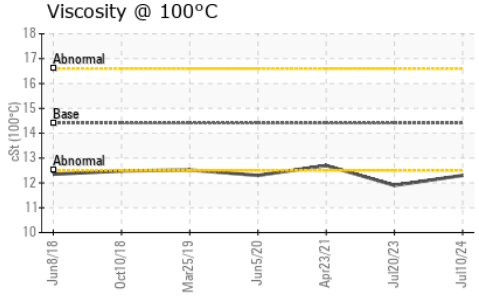
FT-IR (Direct Trend)



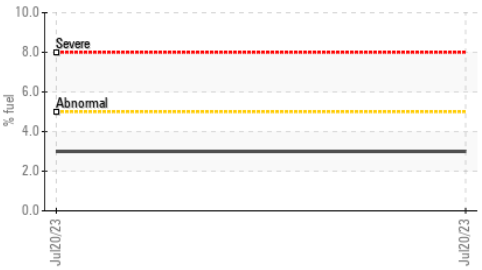

Base Number



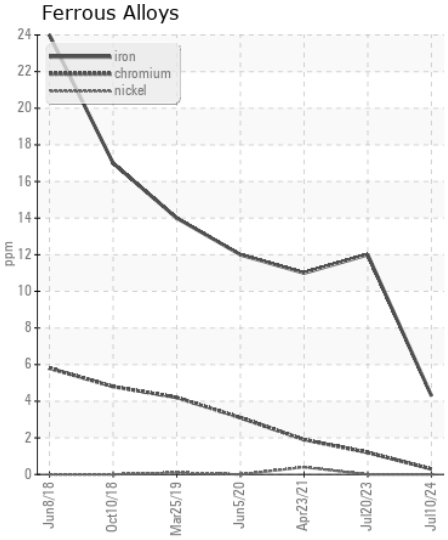

Viscosity @ 100°C



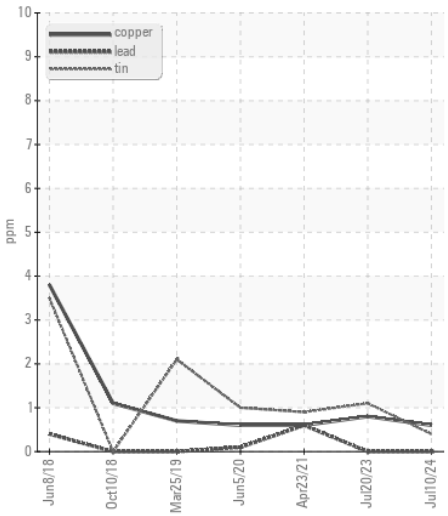

Fuel Dilution



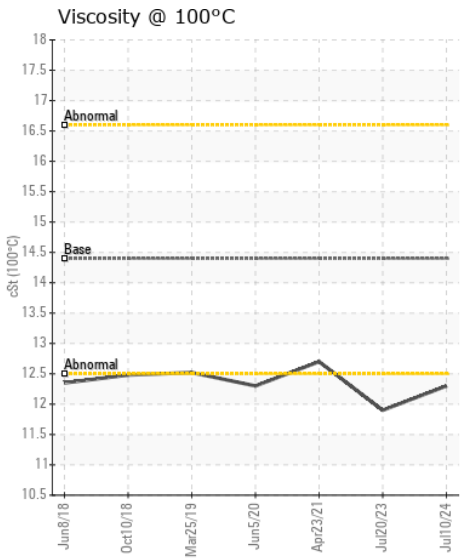

Ferrous Alloys



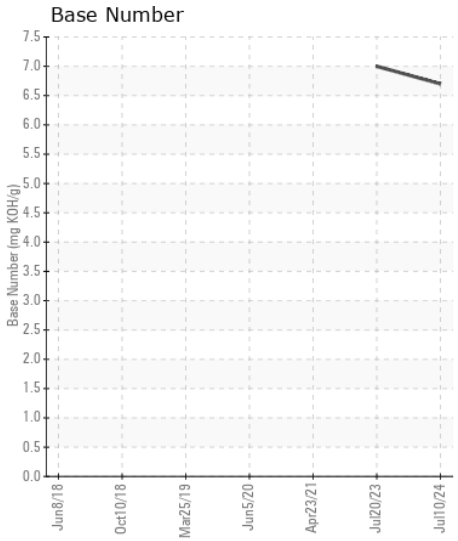

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0857129 **Received** : 11 Jul 2024
**Lab Number** : 06233042 **Tested** : 12 Jul 2024
**Unique Number** : 11116535 **Diagnosed** : 15 Jul 2024 - Jonathan Hester
**Test Package** : CONST ( Additional Tests: FuelDilution, TBN )

*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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