LEAHY·WOLF
Lubricating specialists since 1946

# OIL ANALYSIS REPORT

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

Area
## K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
## 1126
Component
## Diesel Engine
Fluid
## LEAHY WOLF PREMIUM 15W40 (3 GAL)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

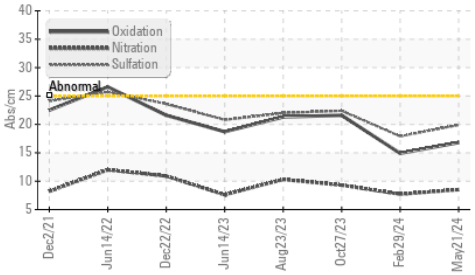
There is no indication of any contamination in the oil.

## FLUID CONDITION

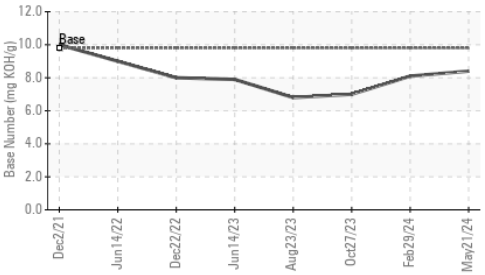
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | LW0009208 | LW0008879 | LW0008395 |
| Sample Date | | Client Info | | 21 May 2024 | 29 Feb 2024 | 27 Oct 2023 |
| Machine Age | hrs | Client Info | | 2525 | 2227 | 1936 |
| Oil Age | hrs | Client Info | | 298 | 1569 | 658 |
| Filter Age | hrs | Client Info | | 298 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | 12 | 50 | 15 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | 1 |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 1 | 6 | 3 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 3 | 0 |
| Copper | ppm | ASTM D5185m | >330 | <1 | 1 | 2 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 4 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 2 | 2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.1 | 0.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.5 | 7.7 | 9.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.9 | 17.9 | 22.4 |
| 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 | | 0 | 3 | 4 |
| Boron | ppm | ASTM D5185m | | 0 | 10 | 1 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185m | | 60 | 59 | 60 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 1068 | 1042 | 950 |
| Calcium | ppm | ASTM D5185m | | 1247 | 1222 | 1109 |
| Phosphorus | ppm | ASTM D5185m | | 1130 | 1112 | 1019 |
| Zinc | ppm | ASTM D5185m | | 1449 | 1333 | 1300 |
| Sulfur | ppm | ASTM D5185m | | 3829 | 3430 | 3681 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.8 | 14.9 | 21.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.4 | 8.1 | 7.0 |
| Visc @ 100°C | cSt | ASTM D445 | 15.6 | 13.9 | 13.9 | 13.7 |

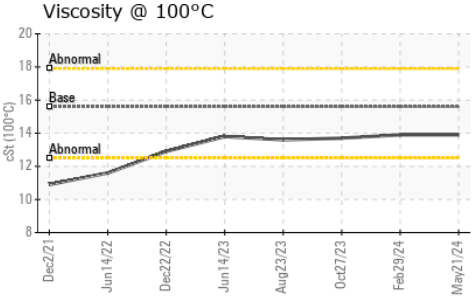
FT-IR (Direct Trend)



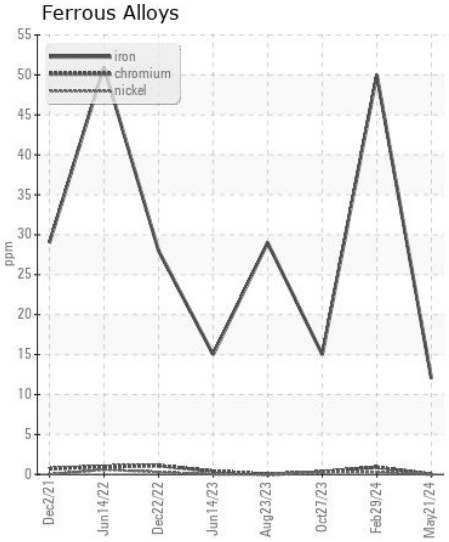

Base Number



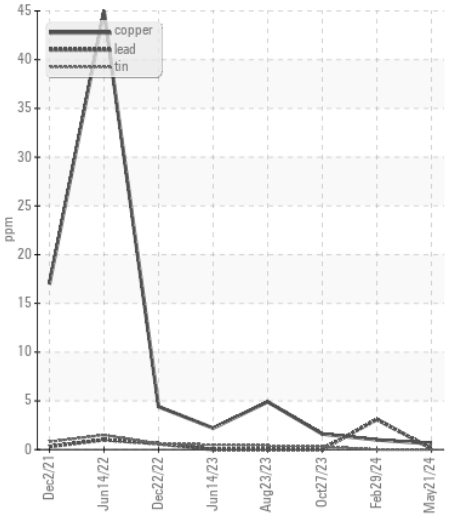

Viscosity @ 100°C



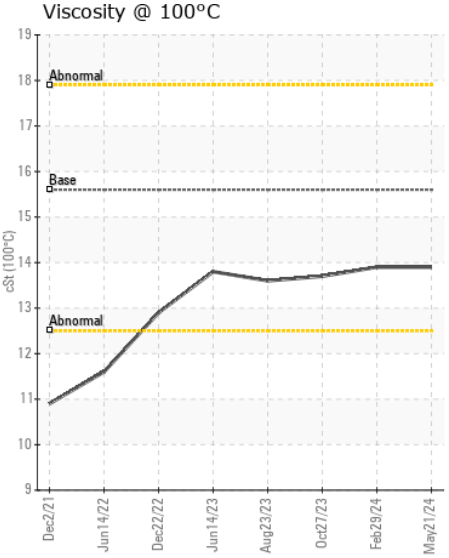

Ferrous Alloys



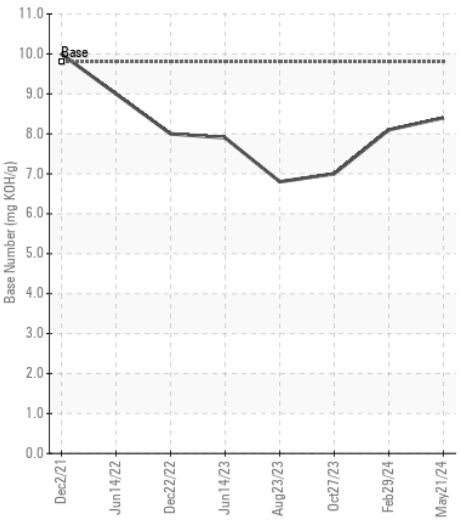

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : LW0009208
**Lab Number** : 06193197
**Unique Number** : 11049949
**Test Package** : FLEET

**Received** : 28 May 2024
**Tested** : 30 May 2024
**Diagnosed** : 30 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)*

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