

WEAR NORMAL CONTAMINATION MARGINAL FLUID CONDITION ATTENTION

Machine Id **4384L** Component **Diesel Engine** Fluid **MOBIL 15W40 (--- GAL)**

| | | | | | ~~~~ | | |
|---|----------------------|------------|----------------------------|-----------|-------------|-------------|-------------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. | Sample Number | | Client Info | | IL0034600 | IL0032356 | IL0030089 |
| | Sample Date | | Client Info | | 16 Apr 2024 | 19 Oct 2023 | 06 Apr 2023 |
| | Machine Age | mls | Client Info | | 114428 | 99214 | 82479 |
| | Oil Age | mls | Client Info | | 15000 | 20000 | 13031 |
| | Filter Age | mls | Client Info | | 15000 | 20000 | 13031 |
| | Oil Changed | | Client Info | | Changed | Changed | Changed |
| | Filter Changed | | Client Info | | Changed | Changed | Changed |
| | Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 85 | 27 | 26 |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | | 2 | <1 | 0 |
| | Nickel | ppm | ASTM D5185m | | 0 | <1 | 0 |
| | Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| | Silver | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 9 | 5 | 13 |
| | Lead | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | | 72 | 1 | <1 |
| | Tin | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| | Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Ciliaan | | | 05 | | | 0 |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 23 | 7 8 | 6 |
| Light fuel dilution occurring. No other contaminants were detected in the oil. | Potassium Fuel | ppm % | ASTM D5185m ASTM D3524 | | 15 ▲ 2.8 | o <1.0 | 6 <1.0 |
| | Water | /0 | WC Method | | NEG | NEG | NEG |
| | Glycol | | WC Method | >0.2 | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | ~3 | 0.8 | 0.4 | 0.5 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 13.3 | 10.7 | 10.1 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 25.1 | 23.4 | 21.2 |
| | 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 |
| | 0 | | | 440 | <u>^</u> | 0 | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 6 | 0 | 1 |
| Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. | Boron | ppm | ASTM D5185m | | 30 | 0 | 3 |
| | Barium | ppm | ASTM D5185m | | 1 | 4 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | 46 5 | 65 | 57 |
| | Manganese | ppm | ASTM D5185m | | 5 | <1 | <1 |
| | Magnesium Calcium | ppm | ASTM D5185m ASTM D5185m | | 779 1162 | 953 1111 | 915 1141 |
| | Phosphorus | ppm ppm | ASTM D5185m | | 666 | 940 | 939 |
| | Zinc | | ASTM D5185m | | 831 | 1258 | 1229 |
| | Sulfur | ppm ppm | ASTM D5185m | | 2411 | 3329 | 3160 |
| | Oxidation | Abs/.1mm | *ASTM D5105111 | >25 | 2411 | 22.3 | 18.8 |
| | Date Newbor (DN) | | | 2LJ | 21.5 | 22.0 | 7.0 |

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

6.9

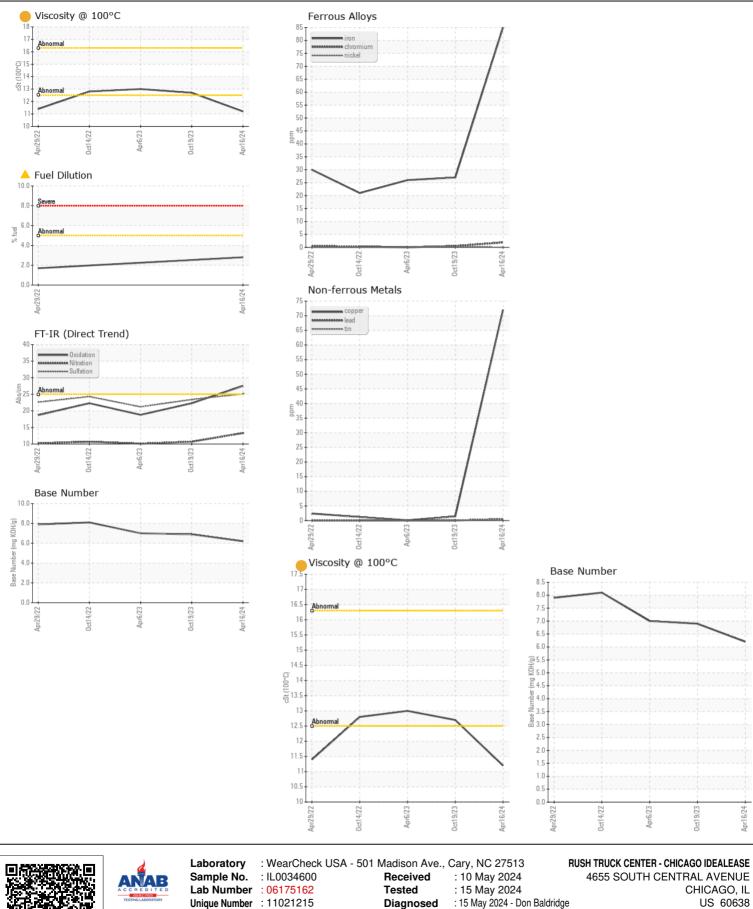
12.7

7.0

13.0

6.2

11.2



Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: MIKE LINLEY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. linleym@rushtruckcenters.com * - 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)

Contact/Location: MIKE LINLEY - IDECHIIL Page 2 of 2

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