

Machine Id INTERNATIONAL 7027367 Component Diesel Engine Fluid VALVOLINE 15W40 (--- GAL)

| | | | | | · · · · · · · · · · · · · · · · · · · | | |
|--|---------------------|--------------------|----------------------------|--------------|---------------------------------------|--------------|--------------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| | Sample Number | | Client Info | | IL0028422 | IL05828609 | IL05701251 |
| The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. | Sample Date | | Client Info | | 21 Feb 2024 | 12 Apr 2023 | 15 Nov 2022 |
| | Machine Age | mls | Client Info | | 169776 | 160545 | 149275 |
| | Oil Age | mls | Client Info | | 0 | 0 | 0 |
| | Filter Age | mls | Client Info | | 0 | 0 | 0 |
| | Oil Changed | | Client Info | | Changed | N/A | N/A |
| | Filter Changed | | Client Info | | Changed | N/A | N/A |
| | Sample Status | | | | NORMAL | NORMAL | ATTENTION |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 52 | 38 | 20 |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | | 2 | 2 | 2 |
| | Nickel | ppm | ASTM D5185m | | - <1 | 0 | 0 |
| | Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| | Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 5 | 2 | 3 |
| | Lead | ppm | ASTM D5185m | | <1 | <1 | 5 |
| | Copper | ppm | ASTM D5185m | | <1 | <1 | <1 |
| | Tin | ppm | ASTM D5185m | | <1 | <1 | 2 |
| | Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | | | | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 8 | 5 | 5 |
| Light fuel dilution occurring. No other contaminants were detected in | Potassium | ppm | ASTM D5185m | | 3 | 4 | <1 |
| the oil. | Fuel | % | | >2.0 | 1.7 | <1.0 | 1.8 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | 0/ | WC Method | 0 | NEG | NEG | NEG |
| | Soot % Nitration | % | *ASTM D7844 *ASTM D7624 | | 0.2 8.1 | 0.2 | 0.4 |
| | Sulfation | Abs/cm Abs/.1mm | *ASTM D7624 | >20 | 21.0 | 9.9 20.6 | 25.1 |
| | Silt | | *Visual | | NONE | 20.6 NONE | 25.1 NONE |
| | Debris | scalar | *Visual | NONE NONE | NONE | NONE | NONE |
| | Sand/Dirt | scalar 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 |
| | | 304141 | 1300 | 20.2 | | NLG | NEG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 2 | 2 | 3 |
| | Boron | ppm | ASTM D5185m | 39 | 211 | 61 | 29 |
| The BN result indicates that there is suitable alkalinity remaining in the | Barium | ppm | ASTM D5185m | 1 | 0 | 0 | 0 |
| oil. The condition of the oil is suitable for further service. | Molybdenum | ppm | ASTM D5185m | 49 | 85 | 60 | 60 |
| | Manganese | ppm | ASTM D5185m | | 1 | <1 | <1 |
| | Magnesium | ppm | ASTM D5185m | 616 | 483 | 719 | 737 |
| | Calcium | ppm | ASTM D5185m | 1554 | 1289 | 1187 | 1236 |
| | Phosphorus | ppm | ASTM D5185m | 899 | 912 | 747 | 710 |
| | Zinc | ppm | ASTM D5185m | 1069 | 1195 | 929 | 904 |
| | Sulfur | ppm | ASTM D5185m | 2624 | 3114 | 2453 | 2787 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.8 | 18.6 | 23.2 |
| | D N I (DI) | L/OL/ | LOTH DOGG | 0.0 | | | 0.0 |

Base Number (BN) mg KOH/g ASTM D2896 6.9

ASTM D445 13.6

Visc @ 100°C cSt

6.1

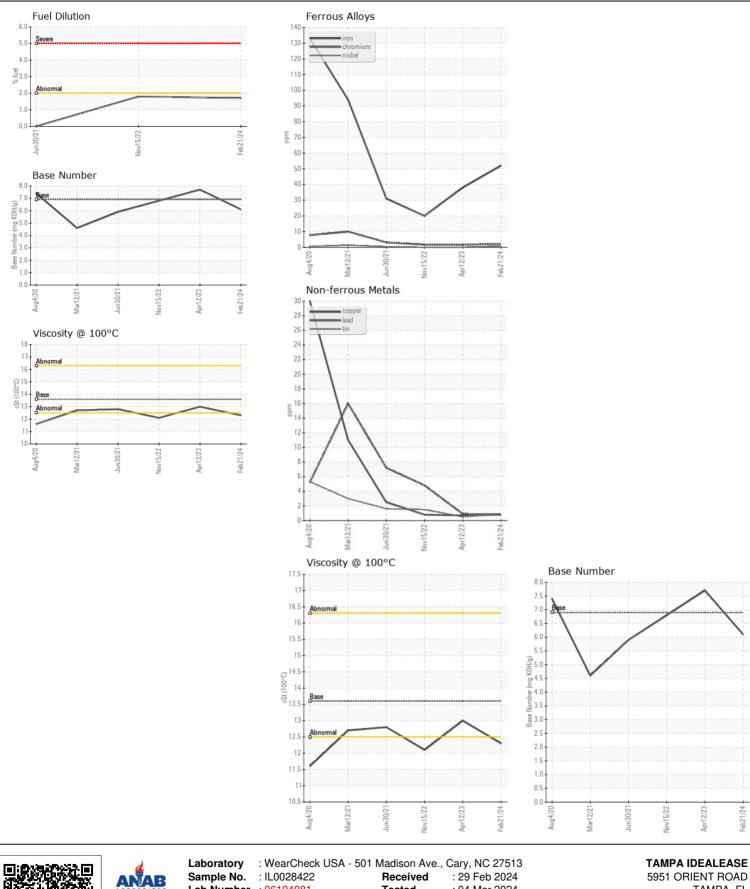
12.3

7.7

13.0

6.8

12.1



Sample No. : IL0028422 Received 5951 ORIENT ROAD : 29 Feb 2024 Lab Number : 06104081 Tested : 04 Mar 2024 TAMPA, FL Unique Number : 10902311 : 04 Mar 2024 - Wes Davis US 33610-9565 Diagnosed Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: Russ Cook Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. russcook@idealease.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (813)626-9285 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (844)270-1356