



OIL ANALYSIS REPORT

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

Machine Id
PETERBILT 453754
Component
Diesel Engine
Fluid
CITGO CITGUARD 600 15W40 (44 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | RPL0012807 | RPL0012787 | RPL0004505 |
| Sample Date | | Client Info | | 13 Jun 2024 | 15 Apr 2024 | 01 Mar 2023 |
| Machine Age | hrs | Client Info | | 8702 | 7886 | 3069 |
| Oil Age | hrs | Client Info | | 1290 | 677 | 3069 |
| Filter Age | hrs | Client Info | | 1290 | 677 | 3069 |
| Oil Changed | | Client Info | | Changed | Not Changd | Changed |
| Filter Changed | | Client Info | | Changed | Not Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-------|
| Iron | ppm | ASTM D5185m | >100 | 91 | 24 | ▲ 149 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | 2 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 8 | 4 | 67 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 5 | 1 | 43 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | 4 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

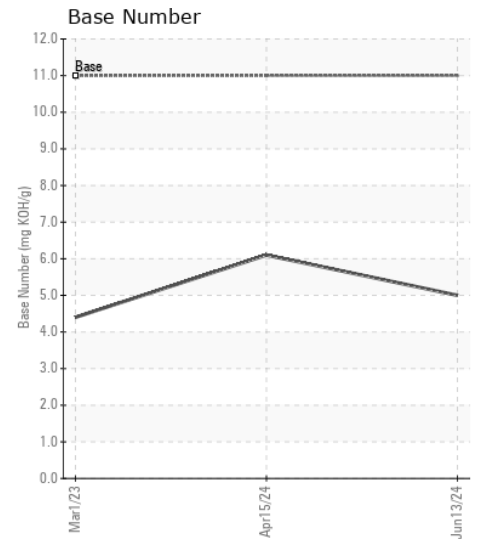
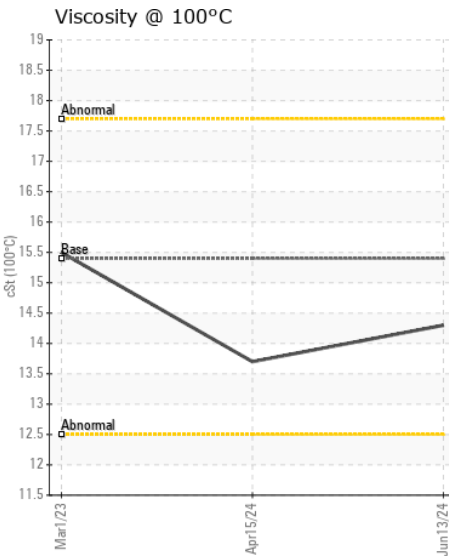
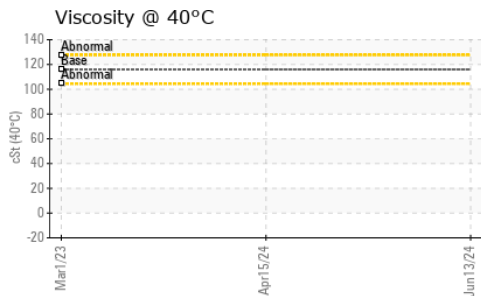
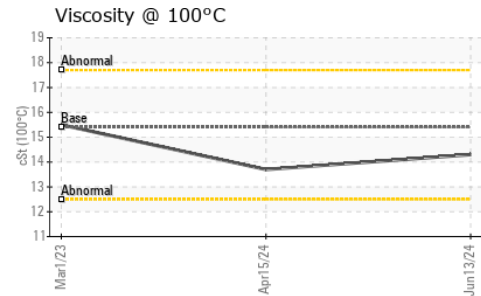
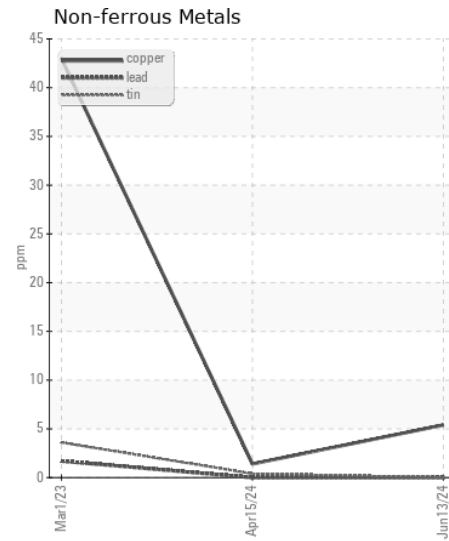
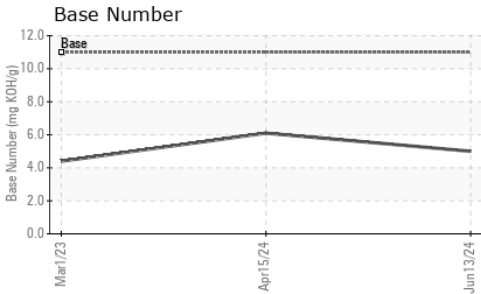
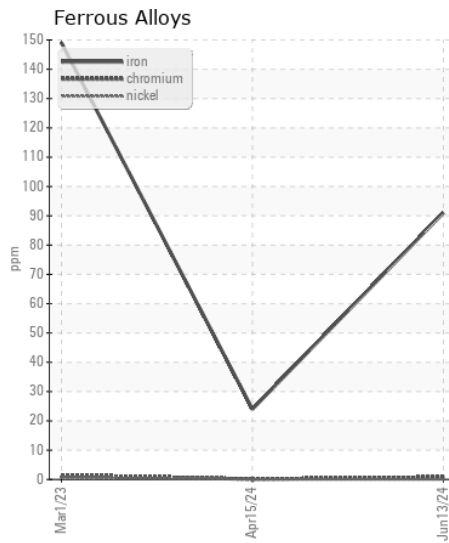
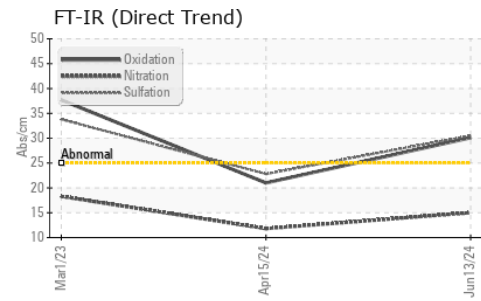
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 11 | 8 | 23 |
| Potassium | ppm | ASTM D5185m | >20 | 6 | <1 | 192 |
| 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 | 0.7 | 0.4 | 0.9 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 15.0 | 11.8 | 18.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 30.5 | 22.8 | 33.8 |
| 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 |

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.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 8 | <1 | 6 |
| Boron | ppm | ASTM D5185m | 13 | 0 | <1 | 9 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m | 57 | 65 | 65 | 43 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 3 |
| Magnesium | ppm | ASTM D5185m | 825 | 424 | 437 | 708 |
| Calcium | ppm | ASTM D5185m | 1100 | 2073 | 1839 | 1606 |
| Phosphorus | ppm | ASTM D5185m | 933 | 1100 | 1061 | 904 |
| Zinc | ppm | ASTM D5185m | 1089 | 1303 | 1305 | 1131 |
| Sulfur | ppm | ASTM D5185m | 2769 | 3464 | 3697 | 2816 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 30.1 | 21.0 | 37.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 11.0 | 5.0 | 6.1 | 4.4 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.3 | 13.7 | 15.5 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0012807 **Received** : 11 Jul 2024
Lab Number : 06234257 **Tested** : 16 Jul 2024
Unique Number : 11123091 **Diagnosed** : 16 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: KV40)

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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)