



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

Machine Id
723054
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0101992 | GFL0101960 | GFL0078381 |
| Sample Date | | Client Info | | 30 Jan 2024 | 18 Dec 2023 | 07 Nov 2023 |
| Machine Age | hrs | Client Info | | 8236 | 8116 | 8005 |
| Oil Age | hrs | Client Info | | 231 | 0 | 8005 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Chngd | Not Chngd | Changed |
| Filter Changed | | Client Info | | Not Chngd | Not Chngd | Changed |
| Sample Status | | | | NORMAL | NORMAL | ATTENTION |

WEAR

All component wear rates are normal.

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

CONTAMINATION

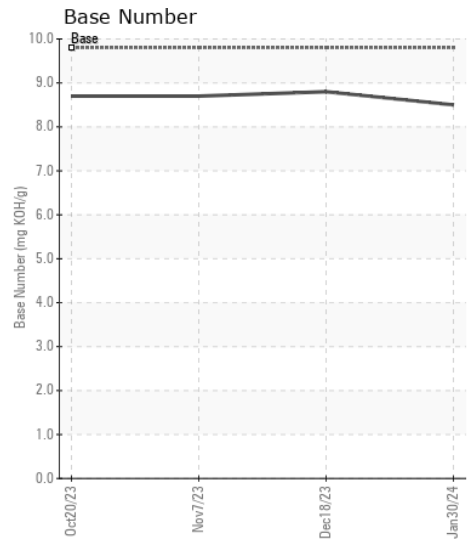
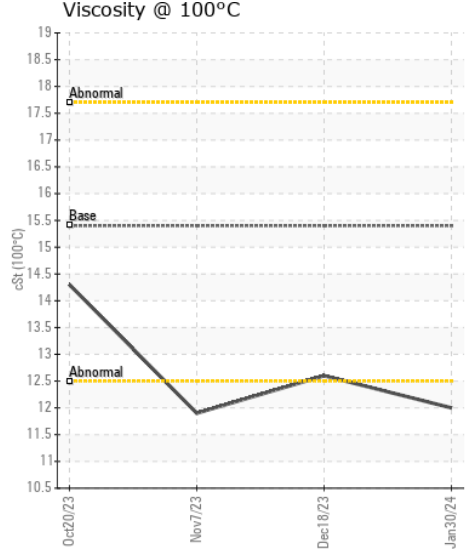
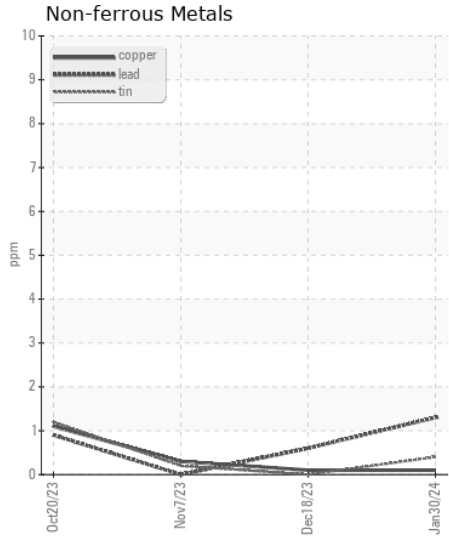
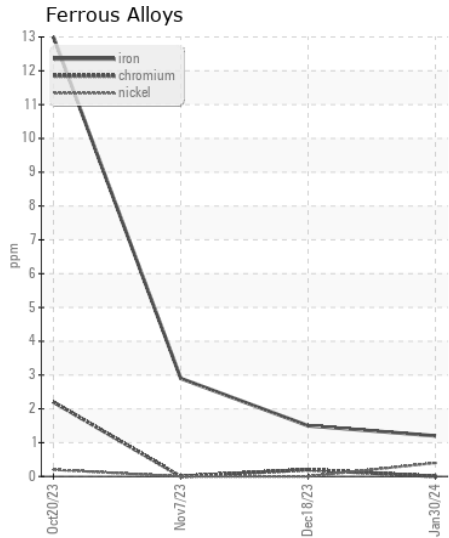
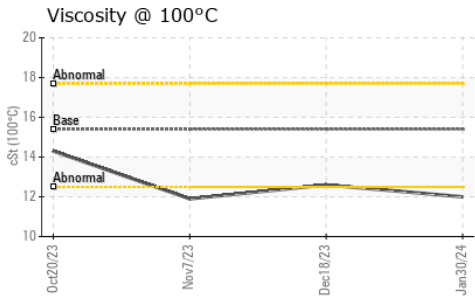
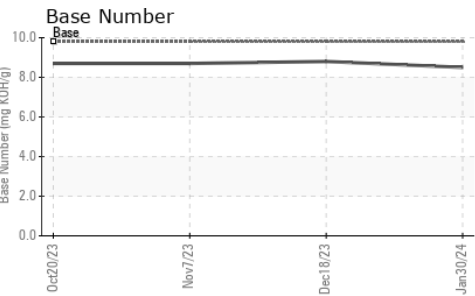
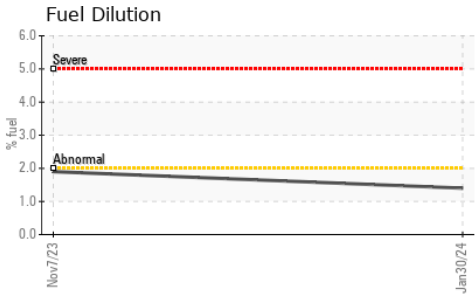
Light fuel dilution occurring. No other contaminants were detected in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 3 | 2 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 2 |
| Fuel | % | ASTM D3524 | >2.0 | 1.4 | <1.0 | 1.9 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.9 | 4.6 | 5.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.5 | 17.4 | 18.0 |
| 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 | | 2 | <1 | 4 |
| Boron | ppm | ASTM D5185m | 0 | 6 | 4 | 4 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 58 | 57 | 61 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 1010 | 895 | 868 | 956 |
| Calcium | ppm | ASTM D5185m | 1070 | 1015 | 1001 | 1097 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1076 | 932 | 1051 |
| Zinc | ppm | ASTM D5185m | 1270 | 1232 | 1106 | 1267 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3158 | 2908 | 2996 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.6 | 13.2 | 14.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.5 | 8.8 | 8.7 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 12.0 | 12.6 | ▲ 11.9 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101992 **Received** : 31 Jan 2024
Lab Number : 06075596 **Tested** : 05 Feb 2024
Unique Number : 10857687 **Diagnosed** : 05 Feb 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 894 - Ada Hauling
 1904 North Broadway, Suite D
 Ada, OK
 US 74820
 Contact: Johnny Spurlock
 jspurlock@gflenv.com
 T: (405)664-4476
 F:

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)