WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

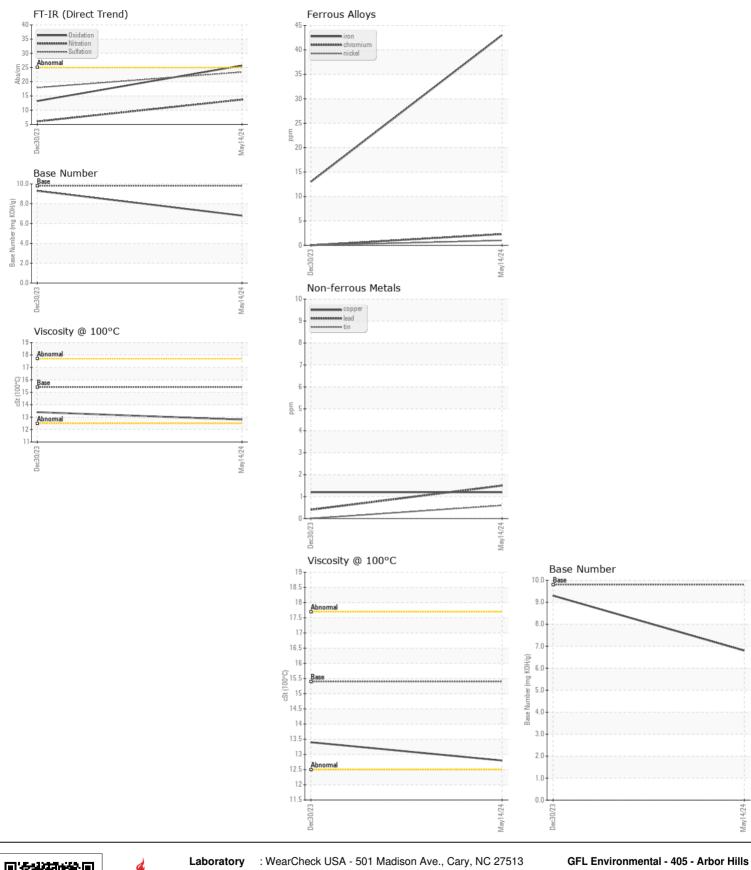
Area (BD08810)

425173

Diesel Engine

PETRO CANADA DURON SHP 15W40 (9 QTS)

| ECOMMENDATION   | Test             | UOM            | Method       | Limit/Abn       | Current     | History1    | History |
|---|------------------|----------------|--------------|-----------------|-------------|-------------|---------|
| Resample at the next service interval to monitor.   | Sample Number    |                | Client Info  |                 | GFL0115061  | GFL0106650  |         |
|   | Sample Date      |                | Client Info  |                 | 14 May 2024 | 30 Dec 2023 |         |
|   | Machine Age      | hrs            | Client Info  |                 | 36116       | 35509       |         |
|   | Oil Age          | hrs            | Client Info  |                 | 607         | 612         |         |
|   | Filter Age       | hrs            | Client Info  |                 | 607         | 612         |         |
|   | Oil Changed      |                | Client Info  |                 | Changed     | Changed     |         |
|   | Filter Changed   |                | Client Info  |                 | Changed     | Changed     |         |
|   | Sample Status    |                |              |                 | NORMAL      | NORMAL      |         |
| /EAR  | Iron             | ppm            | ASTM D5185m  | <b>\</b> 85     | 43          | 13          |         |
| VEAIL .   | Chromium         |                | ASTM D5185m  |                 | 2           | 0           |         |
| All component wear rates are normal.  |                  | ppm            |              |                 |             |             |         |
|   | Nickel           | ppm            | ASTM D5185m  |                 | 1           | 0           |         |
|   | Titanium         | ppm            | ASTM D5185m  |                 | 0           | 0           |         |
|   | Silver           | ppm            | ASTM D5185m  |                 | 0           | 0           |         |
|   | Aluminum         | ppm            | ASTM D5185m  |                 | 7           | 2           |         |
|   | Lead             | ppm            | ASTM D5185m  |                 | 2           | <1          |         |
|   | Copper           | ppm            | ASTM D5185m  | >100            | 1           | 1           |         |
|   | Tin              | ppm            | ASTM D5185m  | >4              | <1          | 0           |         |
|   | Vanadium         | ppm            | ASTM D5185m  |                 | <1          | 0           |         |
|   | White Metal      | scalar         | *Visual      | NONE            | NONE        | NONE        |         |
|   | Yellow Metal     | scalar         | *Visual      | NONE            | NONE        | NONE        |         |
| ONTAMINATION  | Silicon          | ppm            | ASTM D5185m  | >15             | 11          | 2           |         |
| SITTAMINATION   | Potassium        | ppm            | ASTM D5185m  |                 | 4           | 2           |         |
| There is no indication of any contamination in the oil.   | Fuel             | ρρ             | WC Method    |                 | <1.0        | <1.0        |         |
|   | Water            |                | WC Method    |                 | NEG         | NEG         |         |
|   | Glycol           |                | WC Method    | <i>&gt;</i> 0.∠ | NEG         | NEG         |         |
|   | Soot %           | %              | *ASTM D7844  | . 2             | 0.9         | 0.5         |         |
|   | Nitration        |                | *ASTM D7644  |                 |             |             |         |
|   |                  | Abs/cm         |              | >20             | 13.7        | 6.0         |         |
|   | Sulfation        | Abs/.1mm       | *ASTM D7415  |                 | 23.4        | 17.9        |         |
|   | Silt             | scalar         | *Visual      | NONE            | NONE        | NONE        |         |
|   | Debris           | scalar         | *Visual      | NONE            | NONE        | NONE        |         |
|   | Sand/Dirt        | scalar         | *Visual      | NONE            | NONE        | NONE        |         |
|   | Appearance       | scalar         | *Visual      | NORML           | NORML       | NORML       |         |
|   | Odor             | scalar         | *Visual      | NORML           | NORML       | NORML       |         |
|   | Emulsified Water | scalar         | *Visual      | >0.2            | NEG         | NEG         |         |
| LUID CONDITION  | Sodium           | ppm            | ASTM D5185m  |                 | 14          | <1          |         |
|   | Boron            | ppm            | ASTM D5185m  | 0               | 2           | 3           |         |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium           | ppm            | ASTM D5185m  | 0               | 0           | 0           |         |
|   | Molybdenum       | ppm            | ASTM D5185m  |                 | 53          | 54          |         |
|   | Manganese        | ppm            | ASTM D5185m  |                 | <1          | 0           |         |
|   | Magnesium        | ppm            | ASTM D5185m  |                 | 889         | 874         |         |
|   | Calcium          | ppm            | ASTM D5185m  |                 | 924         | 993         |         |
|   | Phosphorus       | ppm            | ASTM D5185m  |                 | 898         | 928         |         |
|   | Zinc             | ppm            | ASTM D5185m  |                 | 1148        | 1221        |         |
|   | Sulfur           |                | ASTM D5185m  |                 | 3089        | 2827        |         |
|   | Oxidation        | ppm<br>Abo/1mm | *ASTM D7414  |                 |             |             |         |
|   | Base Number (BN) | Abs/.1mm       |              |                 | 25.7<br>6.8 | 13.2<br>9.3 |         |
|   |                  | ma K()H/a      | 4511/1112896 | 9 X             | h X         | 9.3         |         |







Certificate L2367

Sample No.

: GFL0115061 Lab Number : 06190234 Unique Number : 11046986 Test Package : FLEET

Received : 24 May 2024

**Tested** Diagnosed

: 29 May 2024 : 29 May 2024 - Sean Felton

7811 Chubb Rd NORTHVILLE, MI US 48168 Contact: John Nahal jnahal@gflenv.com

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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