



|                 |                  |
|-----------------|------------------|
| WEAR            | <b>NORMAL</b>    |
| CONTAMINATION   | <b>NORMAL</b>    |
| FLUID CONDITION | <b>ATTENTION</b> |

Machine Id  
**727112-3**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (6 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0113914</b>  | GFL0093730  | GFL0079047  |
| Sample Date    |     | Client Info |           | <b>11 Apr 2024</b> | 18 Oct 2023 | 09 May 2023 |
| Machine Age    | hrs | Client Info |           | <b>20730</b>       | 20585       | 20387       |
| Oil Age        | hrs | Client Info |           | <b>20585</b>       | 20585       | 20387       |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Changed     | Changed     |
| Sample Status  |     |             |           | <b>ATTENTION</b>   | ATTENTION   | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>15</b>    | 14   | 8    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>1</b>     | 2    | <1   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>&lt;1</b> | 1    | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

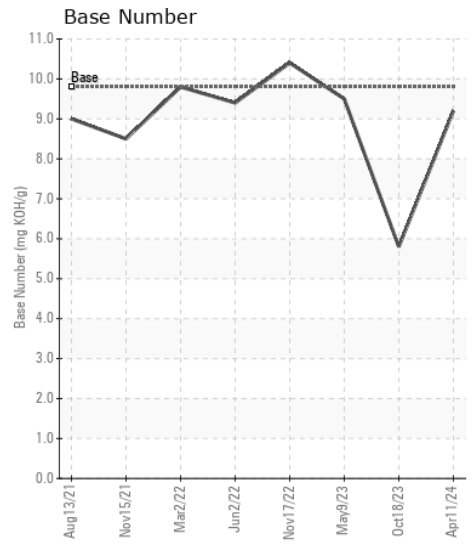
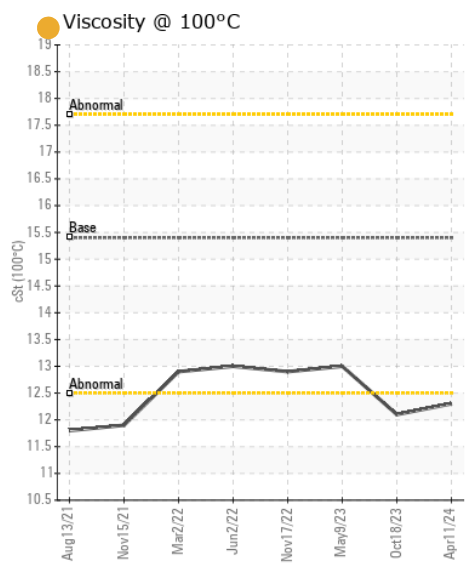
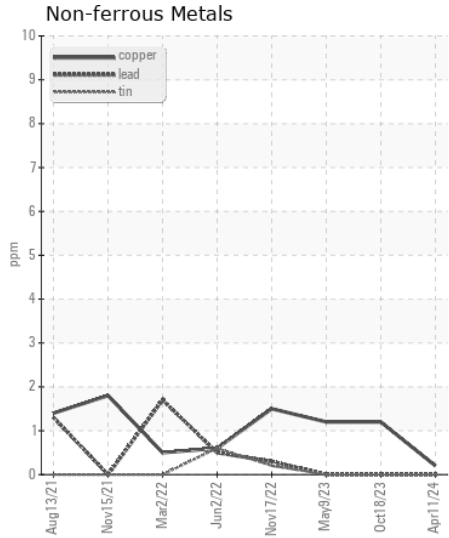
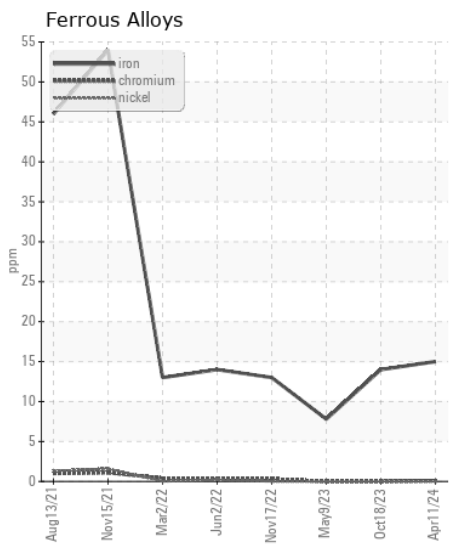
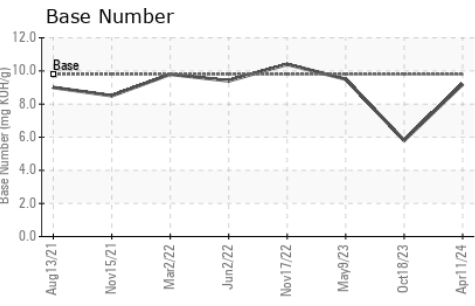
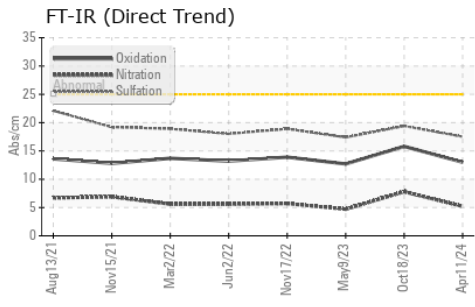
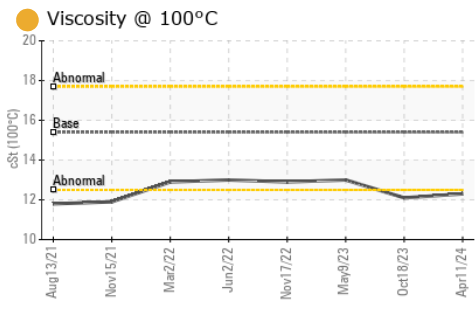
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>19</b>      | 4     | 3     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>5</b>       | 3     | 2     |
| Fuel             |          | WC Method   | >2.0  | <b>&lt;1.0</b> | 1.4   | <1.0  |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.2</b>     | 0.3   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>5.2</b>     | 7.8   | 4.7   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>17.5</b>    | 19.4  | 17.4  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

**FLUID CONDITION**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>3</b>     | 4    | 2    |
| Boron            | ppm      | ASTM D5185m | 0    | <b>4</b>     | 10   | 10   |
| Barium           | ppm      | ASTM D5185m | 0    | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 60   | <b>63</b>    | 56   | 57   |
| Manganese        | ppm      | ASTM D5185m | 0    | <b>&lt;1</b> | 0    | 0    |
| Magnesium        | ppm      | ASTM D5185m | 1010 | <b>1066</b>  | 881  | 907  |
| Calcium          | ppm      | ASTM D5185m | 1070 | <b>1132</b>  | 1053 | 1124 |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>1199</b>  | 958  | 1010 |
| Zinc             | ppm      | ASTM D5185m | 1270 | <b>1381</b>  | 1172 | 1232 |
| Sulfur           | ppm      | ASTM D5185m | 2060 | <b>3981</b>  | 2984 | 3563 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>13.0</b>  | 15.8 | 12.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.8  | <b>9.2</b>   | 5.8  | 9.5  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>12.3</b>  | 12.1 | 13.0 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0113914 **Received** : 15 Apr 2024  
**Lab Number** : 06149373 **Tested** : 16 Apr 2024  
**Unique Number** : 10979451 **Diagnosed** : 17 Apr 2024 - Don Baldrige  
**Test Package** : FLEET

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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)