



# OIL ANALYSIS REPORT

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

Machine Id  
**281**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (42 GAL)**

## RECOMMENDATION

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0846901</b>   | WC0776076   | WC0731650   |
| Sample Date    |     | Client Info |           | <b>31 Jan 2024</b> | 23 Feb 2023 | 29 Aug 2022 |
| Machine Age    | kms | Client Info |           | <b>749059</b>      | 699641      | 665121      |
| Oil Age        | kms | Client Info |           | <b>30676</b>       | 34521       | 0           |
| Filter Age     | kms | Client Info |           | <b>30676</b>       | 34521       | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

Les taux d'usure de tous les composants sont normaux.

|          |     |               |      |              |    |    |
|----------|-----|---------------|------|--------------|----|----|
| Iron     | ppm | ASTM D5185(m) | >165 | <b>56</b>    | 91 | 91 |
| Chromium | ppm | ASTM D5185(m) | >5   | <b>1</b>     | 2  | 2  |
| Nickel   | ppm | ASTM D5185(m) | >4   | <b>&lt;1</b> | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2   | <b>0</b>     | <1 | <1 |
| Silver   | ppm | ASTM D5185(m) | >2   | <b>0</b>     | 0  | 0  |
| Aluminum | ppm | ASTM D5185(m) | >20  | <b>16</b>    | 33 | 28 |
| Lead     | ppm | ASTM D5185(m) | >150 | <b>2</b>     | 3  | 5  |
| Copper   | ppm | ASTM D5185(m) | >90  | <b>2</b>     | 3  | 2  |
| Tin      | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

## CONTAMINATION

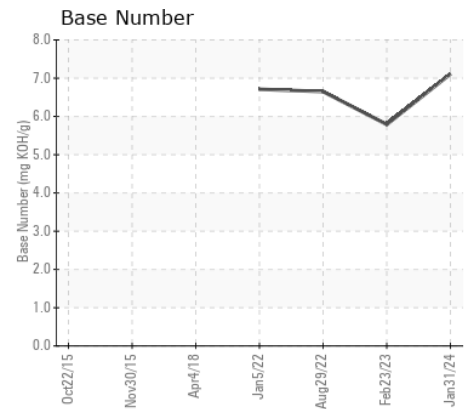
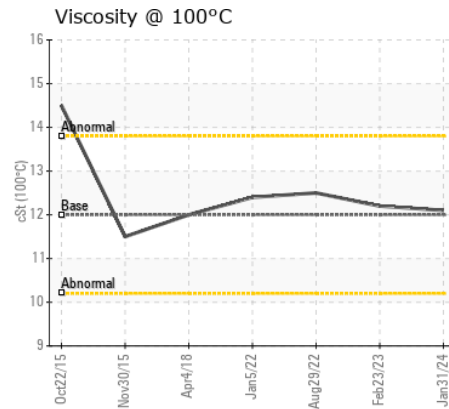
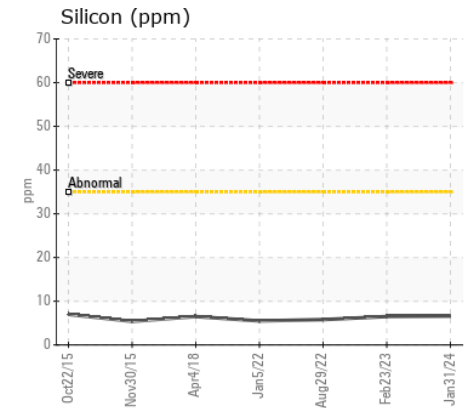
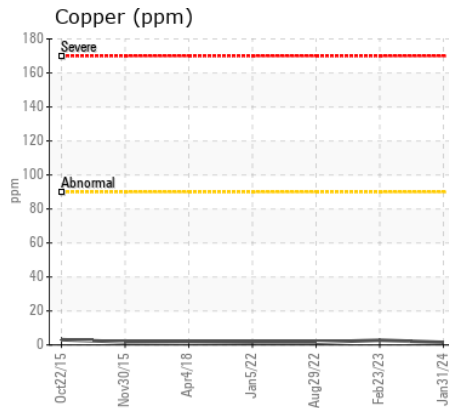
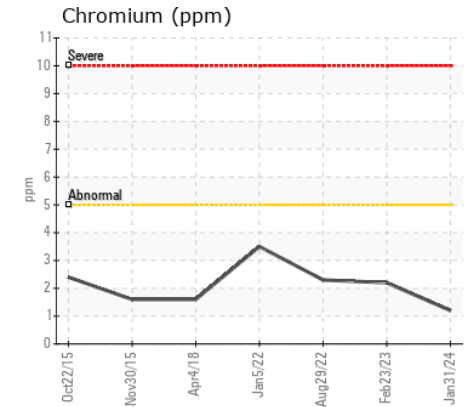
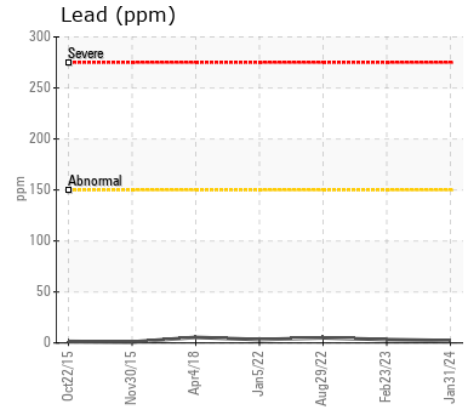
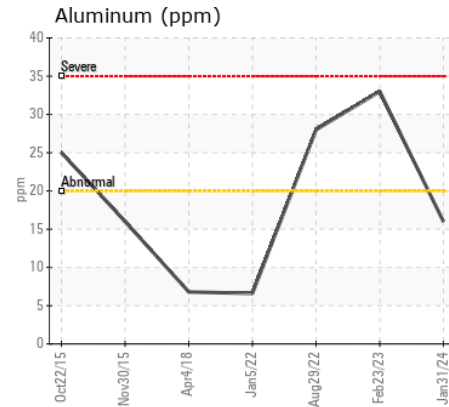
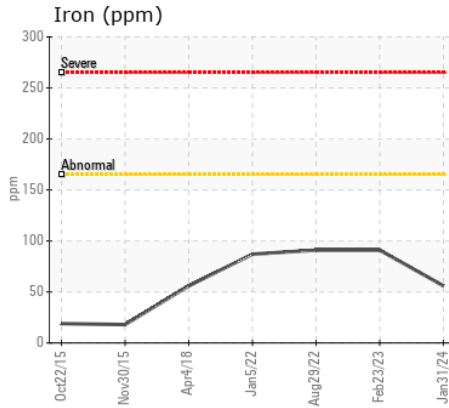
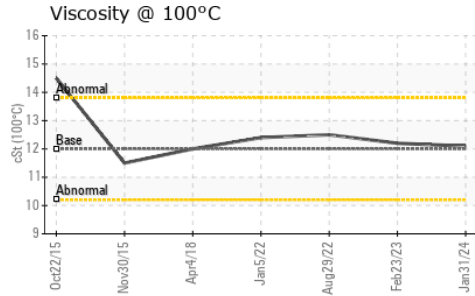
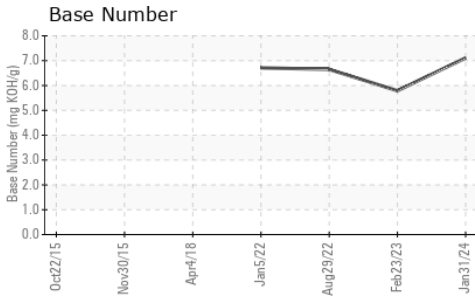
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Il n'y a aucun indice de contamination dans l'huile.

|                  |          |               |      |                |      |      |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon          | ppm      | ASTM D5185(m) | >35  | <b>7</b>       | 6    | 6    |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>19</b>      | 42   | 45   |
| Fuel             |          | WC Method     | >3.0 | <b>&lt;1.0</b> | <1.0 | <1.0 |
| Water            |          | WC Method     | >0.2 | <b>NEG</b>     | NEG  | NEG  |
| Glycol           |          | WC Method     |      | <b>NEG</b>     | NEG  | NEG  |
| Soot %           | %        | ASTM D7844*   | >7.5 | <b>0.9</b>     | 0.8  | 1.1  |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>15.2</b>    | 14.7 | 15.7 |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>27.7</b>    | 29.2 | 31.4 |
| Emulsified Water | scalar   | Visual*       | >0.2 | <b>NEG</b>     | NEG  | NEG  |

## FLUID CONDITION

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. L'état de l'huile permet d'en prolonger l'utilisation.

|                  |          |               |       |             |      |      |
|------------------|----------|---------------|-------|-------------|------|------|
| Sodium           | ppm      | ASTM D5185(m) |       | <b>6</b>    | 7    | 7    |
| Boron            | ppm      | ASTM D5185(m) | 2     | <b>14</b>   | 18   | 10   |
| Barium           | ppm      | ASTM D5185(m) | 0     | <b>0</b>    | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185(m) | 50    | <b>61</b>   | 65   | 66   |
| Manganese        | ppm      | ASTM D5185(m) | 0     | <b>0</b>    | 1    | 1    |
| Magnesium        | ppm      | ASTM D5185(m) | 950   | <b>1122</b> | 1173 | 1235 |
| Calcium          | ppm      | ASTM D5185(m) | 1050  | <b>899</b>  | 952  | 987  |
| Phosphorus       | ppm      | ASTM D5185(m) | 995   | <b>1054</b> | 1138 | 1224 |
| Zinc             | ppm      | ASTM D5185(m) | 1180  | <b>1238</b> | 1309 | 1408 |
| Sulfur           | ppm      | ASTM D5185(m) | 2600  | <b>2935</b> | 2913 | 2913 |
| Oxidation        | Abs/.1mm | ASTM D7414*   | >25   | <b>24.2</b> | 24.4 | 28.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896*   |       | <b>7.11</b> | 5.79 | 6.65 |
| Visc @ 100°C     | cSt      | ASTM D7279(m) | 12.00 | <b>12.1</b> | 12.2 | 12.5 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0846901  
**Lab Number** : 02616157  
**Unique Number** : 5733267  
**Test Package** : MOB 2  
**Received** : 16 Feb 2024  
**Tested** : 20 Feb 2024  
**Diagnosed** : 20 Feb 2024 - Wes Davis

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.