



# OIL ANALYSIS REPORT

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

Machine Id

**42**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON HP 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0867925</b>   | WC0740588   | WC0740629   |
| Sample Date    |     | Client Info |           | <b>02 Feb 2024</b> | 26 Oct 2023 | 14 Feb 2023 |
| Machine Age    | mls | Client Info |           | <b>10040</b>       | 94911       | 84744       |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

Metal levels are typical for a new component breaking in.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>19</b>    | 12   | 25   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | <1   |
| 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>8</b>     | 4    | 10   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 0    | <1   |
| Copper       | ppm    | ASTM D5185m | >330 | <b>1</b>     | <1   | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 0    | <1   |
| 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

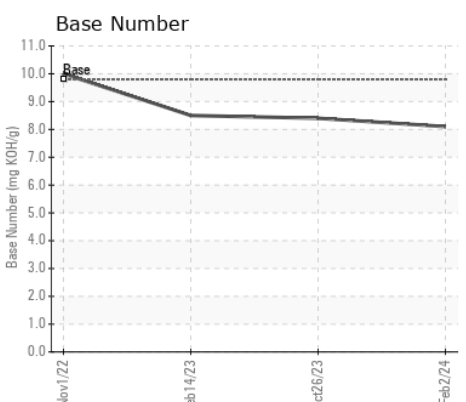
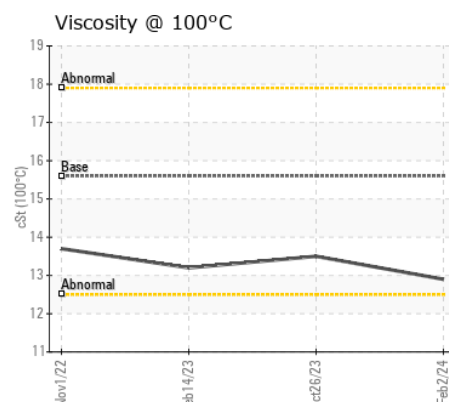
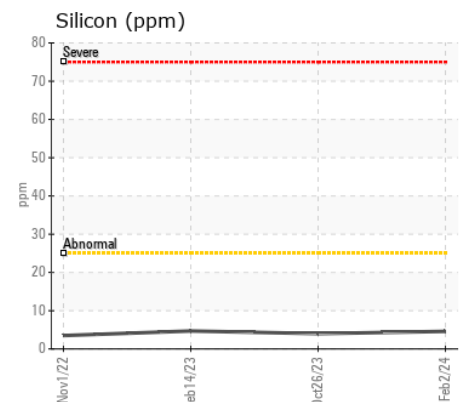
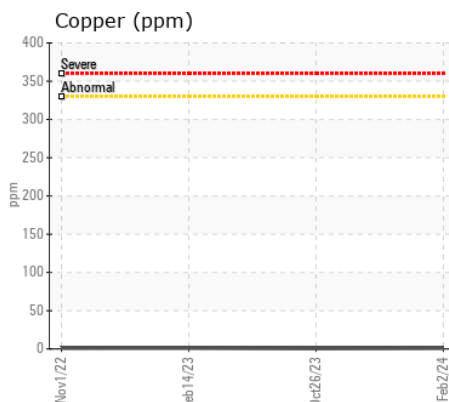
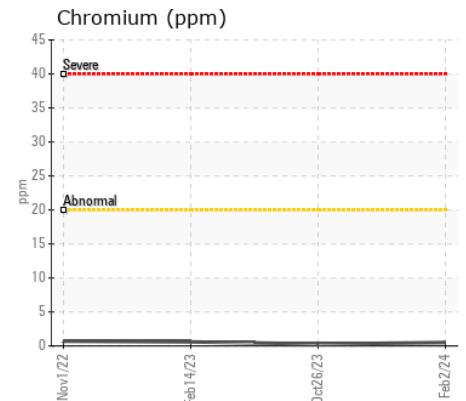
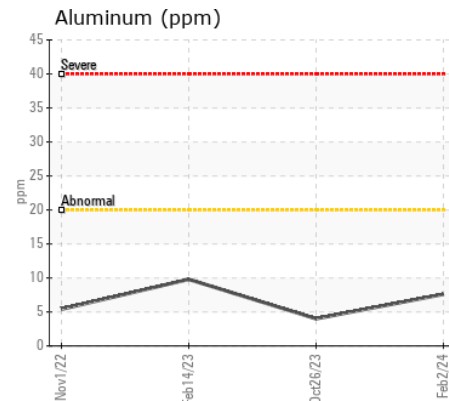
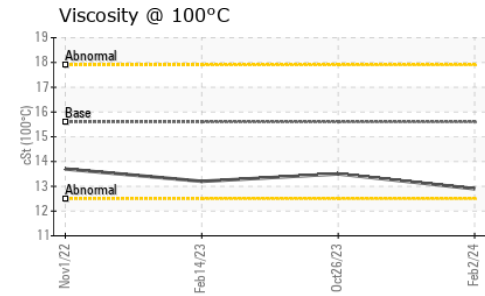
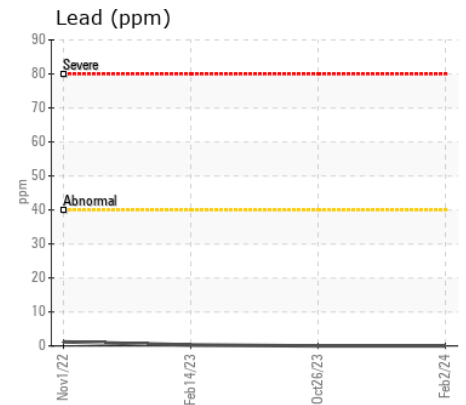
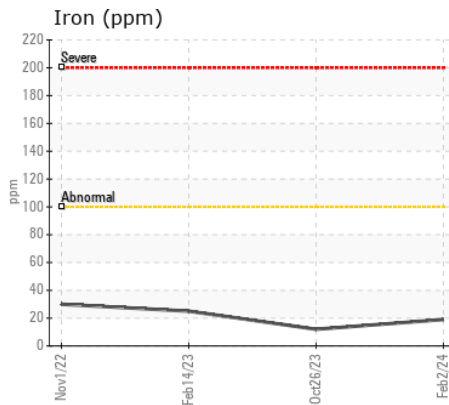
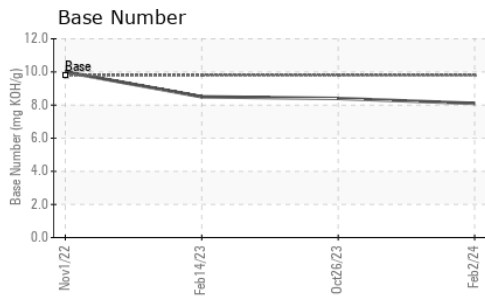
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>5</b>       | 4     | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>6</b>       | 5     | 4     |
| Fuel             |          | WC Method   | >5    | <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 | >3    | <b>1.2</b>     | 0.6   | 1.2   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.9</b>     | 7.5   | 9.5   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>20.9</b>    | 19.5  | 20.8  |
| 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 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 |      | <b>2</b>     | 0    | 2    |
| Boron            | ppm      | ASTM D5185m |      | <b>5</b>     | 8    | 4    |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>59</b>    | 64   | 61   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>847</b>   | 796  | 899  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1257</b>  | 1183 | 1102 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>991</b>   | 903  | 993  |
| Zinc             | ppm      | ASTM D5185m |      | <b>1233</b>  | 1213 | 1210 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3137</b>  | 3147 | 3482 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>17.3</b>  | 15.1 | 16.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.8  | <b>8.1</b>   | 8.4  | 8.5  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.6 | <b>12.9</b>  | 13.5 | 13.2 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0867925 **Received** : 23 Feb 2024  
**Lab Number** : 06098955 **Tested** : 26 Feb 2024  
**Unique Number** : 10897185 **Diagnosed** : 26 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ANSON CO SCHOOL BUS GARAGE**  
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Certificate L2367  
 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)