

## **OIL ANALYSIS REPORT**

Sample Rating Trend





Component

Transmission (Auto)

## PETRO CANADA DuraDrive HD Synthetic 668 (32 QTS)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

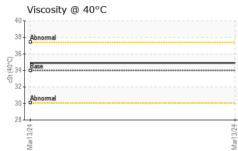
### Fluid Condition

The condition of the fluid is acceptable for the time in service.

| SAMPLE INFOR     | MATION                         | method      | limit/base | current     | history1 | history2 |  |  |
|------------------|--------------------------------|-------------|------------|-------------|----------|----------|--|--|
| Sample Number    |                                | Client Info |            | GFL0106779  |          |          |  |  |
| Sample Date      |                                | Client Info |            | 13 Mar 2024 |          |          |  |  |
| Machine Age      | hrs                            | Client Info |            | 2411        |          |          |  |  |
| Oil Age          | hrs                            | Client Info |            | 2405        |          |          |  |  |
| Oil Changed      |                                | Client Info |            | Changed     |          |          |  |  |
| Sample Status    |                                |             |            | NORMAL      |          |          |  |  |
| CONTAMINAT       | ΓΙΟΝ                           | method      | limit/base | current     | history1 | history2 |  |  |
| Water            |                                | WC Method   | >0.1       | NEG         |          |          |  |  |
| WEAR METAL       | _S                             | method      | limit/base | current     | history1 | history2 |  |  |
| Iron             | ppm                            | ASTM D5185m | >325       | 69          |          |          |  |  |
| Chromium         | ppm                            | ASTM D5185m | >2         | <1          |          |          |  |  |
| Nickel           | ppm                            | ASTM D5185m | >2         | 1           |          |          |  |  |
| Titanium         | ppm                            | ASTM D5185m | >3         | <1          |          |          |  |  |
| Silver           | ppm                            | ASTM D5185m | >5         | 0           |          |          |  |  |
| Aluminum         | ppm                            | ASTM D5185m | >75        | 17          |          |          |  |  |
| Lead             | ppm                            | ASTM D5185m | >40        | 6           |          |          |  |  |
| Copper           | ppm                            | ASTM D5185m | >50        | 8           |          |          |  |  |
| Tin              | ppm                            | ASTM D5185m | >10        | 3           |          |          |  |  |
| Vanadium         | ppm                            | ASTM D5185m |            | <1          |          |          |  |  |
| Cadmium          | ppm                            | ASTM D5185m |            | <1          |          |          |  |  |
| ADDITIVES        |                                | method      | limit/base | current     | history1 | history2 |  |  |
| Boron            | ppm                            | ASTM D5185m |            | 67          |          |          |  |  |
| Barium           | ppm                            | ASTM D5185m |            | 0           |          |          |  |  |
| Molybdenum       | ppm                            | ASTM D5185m |            | <1          |          |          |  |  |
| Manganese        | ppm                            | ASTM D5185m |            | 2           |          |          |  |  |
| Magnesium        | ppm                            | ASTM D5185m |            | 2           |          |          |  |  |
| Calcium          | ppm                            | ASTM D5185m |            | 79          |          |          |  |  |
| Phosphorus       | ppm                            | ASTM D5185m |            | 218         |          |          |  |  |
| Zinc             | ppm                            | ASTM D5185m |            | 7           |          |          |  |  |
| Sulfur           | ppm                            | ASTM D5185m |            | 1250        |          |          |  |  |
| CONTAMINAN       | NTS                            | method      | limit/base | current     | history1 | history2 |  |  |
| Silicon          | ppm                            | ASTM D5185m | >20        | 5           |          |          |  |  |
| Sodium           | ppm                            | ASTM D5185m |            | 6           |          |          |  |  |
| Potassium        | ppm                            | ASTM D5185m | >20        | 3           |          |          |  |  |
| VISUAL           |                                | method      | limit/base | current     | history1 | history2 |  |  |
| White Metal      | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Yellow Metal     | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Precipitate      | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Silt             | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Debris           | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Sand/Dirt        | scalar                         | *Visual     | NONE       | NONE        |          |          |  |  |
| Appearance       | scalar                         | *Visual     | NORML      | NORML       |          |          |  |  |
| Odor             | scalar                         | *Visual     | NORML      | NORML       |          |          |  |  |
| Emulsified Water | scalar                         | *Visual     | >0.1       | NEG         |          |          |  |  |
| Free Water       | scalar                         | *Visual     |            | NEG         |          |          |  |  |
| 47:35) Rev: 1    | Submitted By: Apolinar Zacaria |             |            |             |          |          |  |  |



# **OIL ANALYSIS REPORT**



|                               | FLUID PROPE<br>Visc @ 40°C           |                             | D445 34                         | 34.9      | history1                     |                            |
|-------------------------------|--------------------------------------|-----------------------------|---------------------------------|-----------|------------------------------|----------------------------|
|                               | SAMPLE IMAC                          | GES meth                    | nod limit/base                  | current   | history1                     | history                    |
|                               |                                      |                             |                                 |           |                              |                            |
|                               | Color                                |                             |                                 | no image  | no image                     | no image                   |
| Mar13/24                      | Detterre                             |                             |                                 |           |                              |                            |
|                               | Bottom                               |                             |                                 | no image  | no image                     | no image                   |
|                               | GRAPHS                               |                             |                                 |           |                              |                            |
|                               | Ferrous Alloys                       |                             |                                 |           |                              |                            |
|                               | 60 - iron                            |                             |                                 |           |                              |                            |
|                               | 50                                   |                             |                                 |           |                              |                            |
|                               | 40 -                                 |                             |                                 |           |                              |                            |
|                               | 30                                   |                             |                                 |           |                              |                            |
|                               | 20                                   |                             |                                 |           |                              |                            |
|                               |                                      |                             |                                 |           |                              |                            |
|                               | Mar13/24                             |                             | Mar13/24                        |           |                              |                            |
|                               | ≊<br>Non-ferrous Meta                | s                           | ×                               |           |                              |                            |
|                               | 10<br>g                              |                             |                                 |           |                              |                            |
|                               | 8 - tin                              |                             |                                 |           |                              |                            |
|                               | 7-                                   |                             |                                 |           |                              |                            |
|                               | ق 5 <b>-</b>                         |                             |                                 |           |                              |                            |
|                               | 3                                    |                             |                                 |           |                              |                            |
|                               | 2                                    |                             |                                 |           |                              |                            |
|                               | 0 42                                 |                             | 24 +                            |           |                              |                            |
|                               | Mar13/24                             |                             | Mar13/24                        |           |                              |                            |
|                               | Viscosity @ 40°C                     |                             |                                 |           |                              |                            |
|                               | 38<br>Abnormal                       |                             |                                 |           |                              |                            |
|                               | 37                                   |                             |                                 |           |                              |                            |
|                               | G 35-                                |                             |                                 |           |                              |                            |
|                               | Ф 34 - Вазе<br>33 -                  |                             |                                 |           |                              |                            |
|                               | 32                                   |                             |                                 |           |                              |                            |
|                               | 31<br>30 - Abnormal                  |                             |                                 |           |                              |                            |
|                               | 29                                   |                             | 24                              |           |                              |                            |
|                               | Mar13/24                             |                             | Mar13/24                        |           |                              |                            |
| Laboratory<br>Sample No.      | : WearCheck USA - 50<br>: GFL0106779 | 1 Madison Ave.,<br>Received | Cary, NC 27513<br>: 20 Mar 2024 | GFL En    | vironmental - 856<br>8515 Hi | - Houston So<br>ghway 6 So |
| Lab Number                    | : 06124101                           | Tested                      | : 21 Mar 2024                   | la Davi   | 001011                       | Houston,                   |
| Unique Number<br>Test Package |                                      | Diagnosed                   | : 21 Mar 2024 - V               | ves Davis | Contact: Ap                  | US 770<br>Iolinar Zaca     |
|                               | , contact Customer Serv              |                             |                                 |           | pzacariascar                 |                            |

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)