**WEAR CONTAMINATION FLUID CONDITION** 

**NORMAL ABNORMAL NORMAL** 

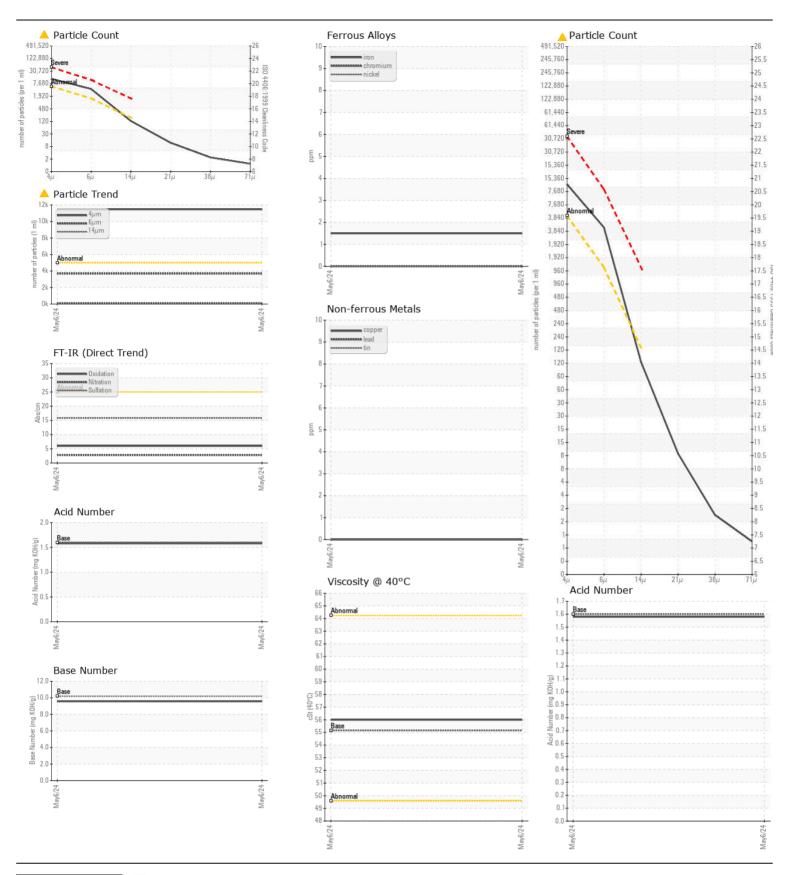
Machine Id

## **STORAGE**

New (Unused) Oil

| PETRO CANADA DURATRAN ( LTR)   |                  |          |               |           | .,            |          |          |
|--|------------------|----------|---------------|-----------|---------------|----------|----------|
| RECOMMENDATION   | Test             | UOM      | Method        | Limit/Abn | Current       | History1 | History2 |
|  | Sample Number    |          | Client Info   |           | PC0041319     |          |          |
| This is the baseline readout on this new (unused) oil. We advise that you                                      | Sample Date      |          | Client Info   |           | 06 May 2024   |          |          |
| follow the water drain-off procedure for this component. The fluid is suitable                                 | Machine Age      | hrs      | Client Info   |           | 0             |          |          |
| for service. We recommend an early resample to monitor this condition.   | Oil Age          | hrs      | Client Info   |           | 0             |          |          |
| NOTE: New oils are not generally filtered or guaranteed to a certain   | Filter Age       | hrs      | Client Info   |           | 0             |          |          |
| cleanliness code. We advise that you verify the target cleanliness code for                                    | Oil Changed      |          | Client Info   |           | N/A           |          |          |
| your application and recommend the use of a portable filter cart to fill any                                   | Filter Changed   |          | Client Info   |           | N/A           |          |          |
| system with a target code below the ISO cleanliness code of this product.                                      | Sample Status    |          |               |           | ABNORMAL      |          |          |
|  |                  |          |               |           |               |          |          |
| WEAR   | Iron             | ppm      | ASTM D5185(m) |           | 2             |          |          |
| ( ) ( ) ( )  | Chromium         | ppm      | ASTM D5185(m) |           | 0             |          |          |
| {not applicable}   | Nickel           | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Titanium         | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Silver           | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Aluminum         | ppm      | ASTM D5185(m) |           | 1             |          |          |
|  | Lead             | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Copper           | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Tin              | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | Vanadium         | ppm      | ASTM D5185(m) |           | 0             |          |          |
|  | White Metal      | scalar   | Visual*       | NONE      | NONE          |          |          |
|  | Yellow Metal     | scalar   | Visual*       | NONE      | NONE          |          |          |
|  |                  |          |               |           |               |          |          |
| CONTAMINATION  | Silicon          | ppm      | ASTM D5185(m) |           | 9             |          |          |
| There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Free water present. | Potassium        | ppm      | ASTM D5185(m) | >20       | <1            |          |          |
|  | Water            |          | WC Method     |           | NEG           |          |          |
|  | Soot %           | %        | ASTM D7844*   |           | 0             |          |          |
|  | Nitration        | Abs/cm   | ASTM D7624*   |           | 2.8           |          |          |
|  | Sulfation        | Abs/.1mm | ASTM D7415*   |           | 15.8          |          |          |
|  | Particles >4µm   |          | ASTM D7647    | >5000     | <b>11465</b>  |          |          |
|  | Particles >6µm   |          | ASTM D7647    | >1300     | <b>△</b> 3686 |          |          |
|  | Particles >14µm  |          | ASTM D7647    | >160      | 110           |          |          |
|  | Particles >21µm  |          | ASTM D7647    | >40       | 10            |          |          |
|  | Particles >38µm  |          | ASTM D7647    | >10       | 2             |          |          |
|  | Particles >71µm  |          | ASTM D7647    | >3        | 1             |          |          |
|  | Oil Cleanliness  |          | ISO 4406 (c)  | >19/17/14 | <u> </u>      |          |          |
|  | Silt             | scalar   | Visual*       | NONE      | NONE          |          |          |
|  | Debris           | scalar   | Visual*       | NONE      | NONE          |          |          |
|  | Sand/Dirt        | scalar   | Visual*       | NONE      | NONE          |          |          |
|  | Appearance       | scalar   | Visual*       | NORML     | ▲ WGOIL       |          |          |
|  | Odor             | scalar   | Visual*       | NORML     | NORML         |          |          |
|  | Emulsified Water | scalar   | Visual*       |           | .2%           |          |          |
| ELUD CONDITION   | O - di-          |          | AOTH DESCE    |           |               |          |          |
| FLUID CONDITION  | Sodium           | ppm      | ASTM D5185(m) | 110       | 1             |          |          |
| The DN second testing about the section (0.11) in 10.00  | Boron            | ppm      | ASTM D5185(m) |           | 120           |          |          |
| The BN result indicates that there is suitable alkalinity remaining in the                                     | Barium           | ppm      | ASTM D5185(m) | 0.0       | 0             |          |          |
| oil. The AN level is acceptable for this fluid. The oil is still serviceable                                   | Molybdenum       | ppm      | ASTM D5185(m) |           | 0             |          |          |
| provided that the contaminant(s) can be reduced to acceptable levels.  | Manganese        | ppm      |               | 1         | 0             |          |          |
|  | Magnesium        | ppm      | ASTM D5185(m) |           | 21            |          |          |
|  | Calcium          | ppm      | ASTM D5185(m) | 3610      | 3520          |          |          |
|  | Phosphorus       | ppm      | ASTM D5185(m) | 1192      | 1140          |          |          |
|  | Zinc             | ppm      | ASTM D5185(m) | 1455      | 1410          |          |          |
|  | Sulfur           | ppm      | ASTM D5185(m) | 2641      | 2700          |          |          |
|  | Oxidation        | Abs/.1mm | ASTM D7414*   |           | 6.0           |          |          |
|  | Acid Number (AN) |          | ASTM D974*    |           | 1.58          |          |          |
|  | Base Number (BN) | mg KOH/g | ASTM D2896*   | 10.2      | 9.57          |          |          |
|  | Visc @ 40°C      | cSt      | ASTM D7279(m) |           | 56.0          |          |          |
|  | Visc @ 100°C     | cSt      | ASTM D7279(m) | 9.38      | 8.8           |          |          |
|  | 10 9 1 1 (10)    | 0 1      | AOTAA DOOTO+  | 450       | 404           |          |          |

Viscosity Index (VI) Scale ASTM D2270\* 153





CALA ISO 17025:2017 Accredited Laboratory

Report Id: BREYOR [WCAMIS] 02634095 (Generated: 05/10/2024 08:56:11) Rev: 1

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Sample No. : PC0041319 Lab Number

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.

Received : 08 May 2024 : 02634095 **Tested** : 10 May 2024 Unique Number : 5775248

: 10 May 2024 - Kevin Marson Diagnosed

Test Package : MOB 2 ( Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

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YORKTON, SK

**BRENDONN HOLDINGS LTD** 

24 BROADWAY STREET WEST