



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

Machine Id  
**MWL**  
Component  
**Port Reduction Gear**  
Fluid  
**PETRO CANADA DURON MARINE SAE 40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>MW05824223</b>  | MW05749644  | MW05749645  |
| Sample Date    |     | Client Info |           | <b>18 Apr 2023</b> | 25 Jan 2023 | 24 Jan 2023 |
| Machine Age    | hrs | Client Info |           | <b>34900</b>       | 49384       | 33270       |
| Oil Age        | hrs | Client Info |           | <b>764</b>         | 1200        | 376         |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >150 | <b>17</b>    | 9    | 12   |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | 0    |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 3    | <1   |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>&lt;1</b> | 1    | <1   |
| Lead         | ppm    | ASTM D5185m | >100 | <b>0</b>     | <1   | <1   |
| Copper       | ppm    | ASTM D5185m | >50  | <b>7</b>     | <1   | 8    |
| Tin          | ppm    | ASTM D5185m | >10  | <b>0</b>     | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

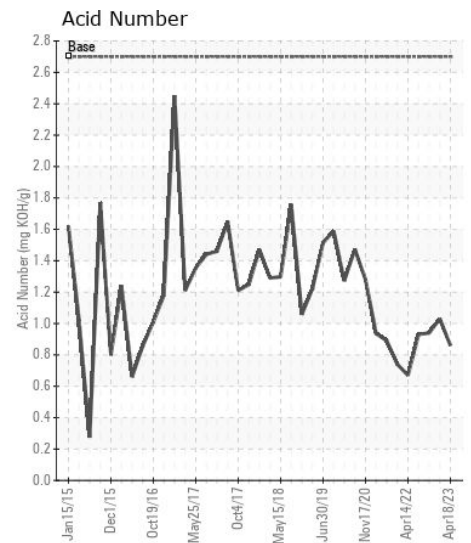
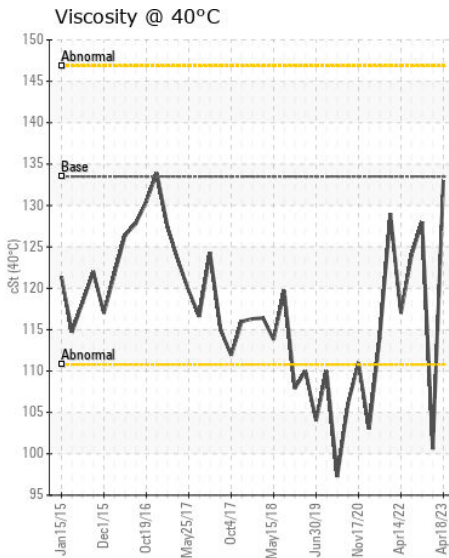
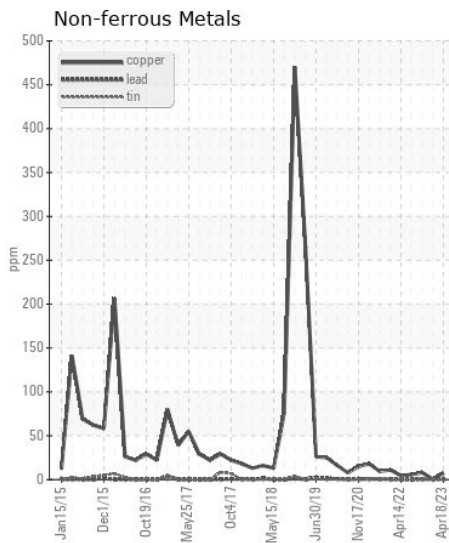
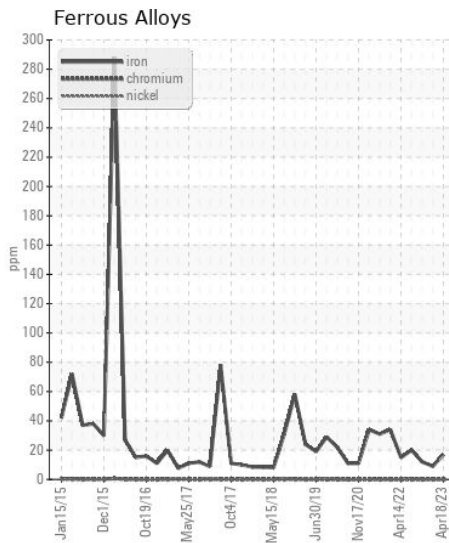
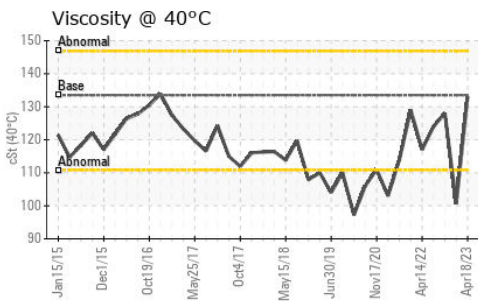
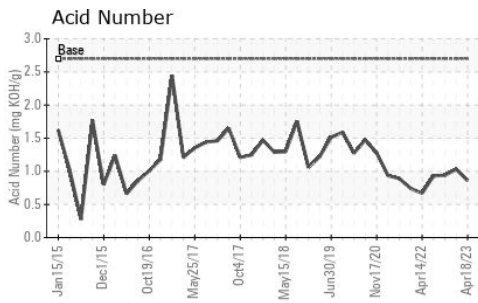
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >50   | <b>3</b>     | 5     | 4     |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>&lt;1</b> | 0     | 0     |
| Water            |        | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| 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     | >0.1  | <b>NEG</b>   | NEG   | NEG   |

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |       |              |       |      |
|------------------|----------|-------------|-------|--------------|-------|------|
| Sodium           | ppm      | ASTM D5185m |       | <b>2</b>     | 1     | 2    |
| Boron            | ppm      | ASTM D5185m | 1.0   | <b>280</b>   | 225   | 259  |
| Barium           | ppm      | ASTM D5185m | 1.0   | <b>0</b>     | 2     | 2    |
| Molybdenum       | ppm      | ASTM D5185m | 1.0   | <b>30</b>    | 52    | 30   |
| Manganese        | ppm      | ASTM D5185m | 1     | <b>&lt;1</b> | <1    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 15    | <b>58</b>    | 324   | 70   |
| Calcium          | ppm      | ASTM D5185m | 2540  | <b>2262</b>  | 1689  | 2157 |
| Phosphorus       | ppm      | ASTM D5185m | 1000  | <b>688</b>   | 629   | 623  |
| Zinc             | ppm      | ASTM D5185m | 1110  | <b>777</b>   | 764   | 755  |
| Sulfur           | ppm      | ASTM D5185m | 3700  | <b>3183</b>  | 2994  | 2939 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 2.7   | <b>0.86</b>  | 1.03  | 0.94 |
| Visc @ 40°C      | cSt      | ASTM D445   | 133.5 | <b>133</b>   | 100.6 | 128  |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05824223  
**Lab Number** : 05824223  
**Unique Number** : 10432306  
**Test Package** : MAR 2  
**Received** : 19 Apr 2023  
**Tested** : 20 Apr 2023  
**Diagnosed** : 21 Apr 2023 - Jonathan Hester

**ILLINOIS MARINE TOWING**  
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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)