MOB

WEAR CHECK

# OIL ANALYSIS REPORT

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

Area
**(EQ2588) W**
Machine Id
**Pembroke BPS (S/N 4624888G)**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON UHP 5W40 (16 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

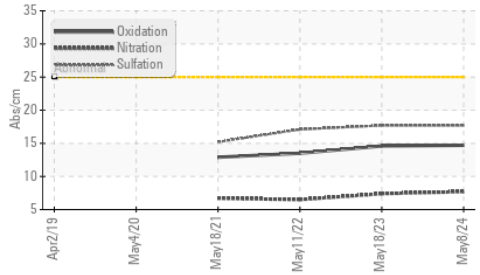
There is no indication of any contamination in the oil.

## FLUID CONDITION

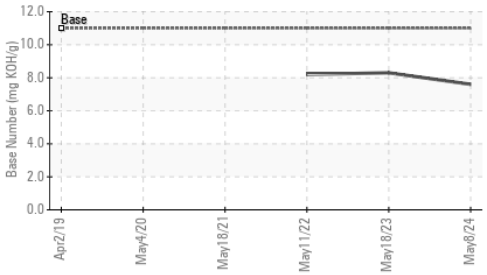
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0934069 | WC0810887 | WC0696108 |
| Sample Date | | Client Info | | 08 May 2024 | 18 May 2023 | 11 May 2022 |
| Machine Age | hrs | Client Info | | 742 | 709 | 680 |
| Oil Age | hrs | Client Info | | 62 | 144 | 0 |
| Filter Age | hrs | Client Info | | 0 | 144 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Changed |
| Filter Changed | | Client Info | | N/A | N/A | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >90 | 3 | <1 | 2 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 48 | 47 | 48 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | <1 | 1 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 4 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | <1 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >6 | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.7 | 7.4 | 6.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.7 | 17.7 | 17.1 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 6 | 5 | 6 |
| Boron | ppm | ASTM D5185m | 65 | 107 | 120 | 119 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 65 | 24 | 21 | 23 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1160 | 775 | 713 | 809 |
| Calcium | ppm | ASTM D5185m | 820 | 1243 | 1212 | 1304 |
| Phosphorus | ppm | ASTM D5185m | 1160 | 1039 | 948 | 1071 |
| Zinc | ppm | ASTM D5185m | 1260 | 1221 | 1174 | 1195 |
| Sulfur | ppm | ASTM D5185m | 3000 | 4172 | 3732 | 3320 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.7 | 14.6 | 13.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 11.0 | 7.6 | 8.3 | 8.2 |
| Visc @ 100°C | cSt | ASTM D445 | 14.3 | 12.7 | 13.0 | 13.6 |

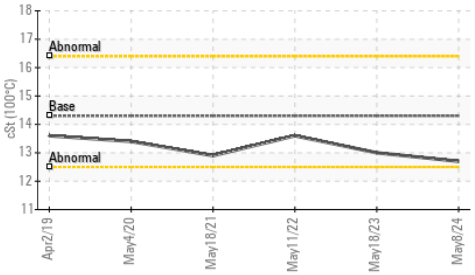
FT-IR (Direct Trend)



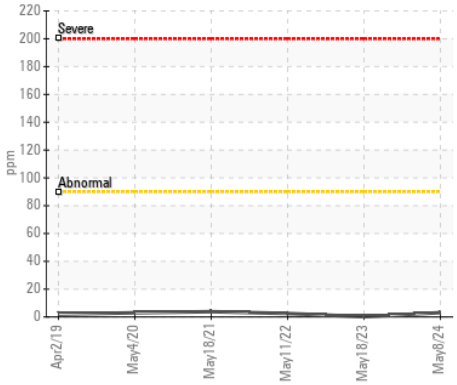

Base Number



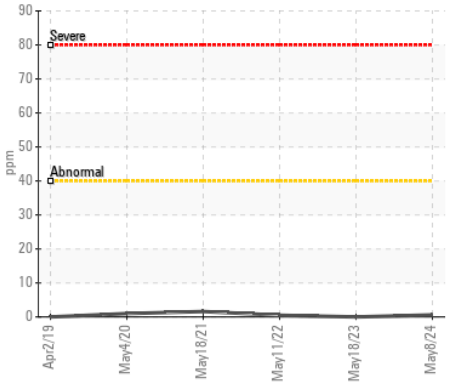

Viscosity @ 100°C



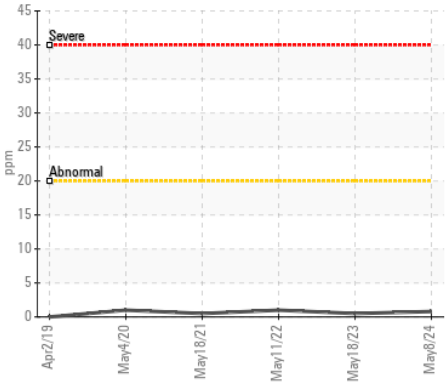

Iron (ppm)



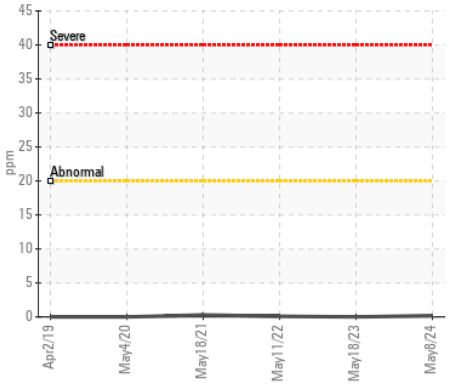

Lead (ppm)



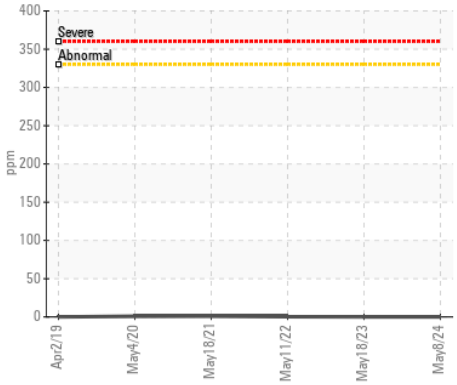

Aluminum (ppm)



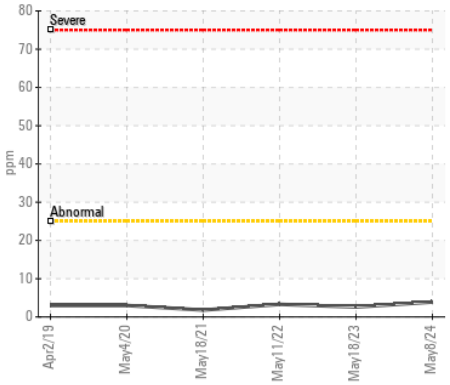

Chromium (ppm)



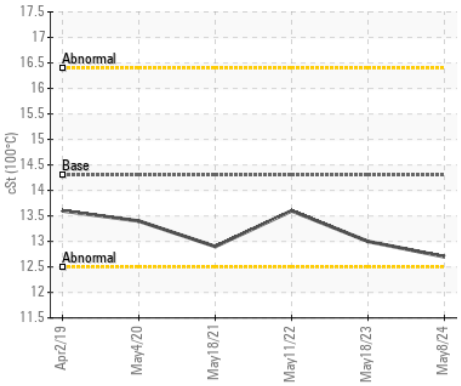

Copper (ppm)



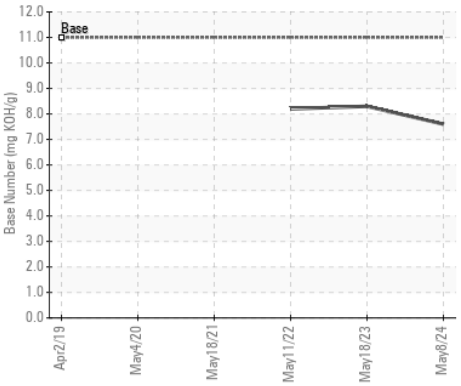

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0934069 **Received** : 13 May 2024
**Lab Number** : 06176916 **Tested** : 14 May 2024
**Unique Number** : 11022969 **Diagnosed** : 14 May 2024 - Sean Felton
**Test Package** : MOB 1 ( Additional Tests: TBN )

*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)*

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