



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

Machine Id
053
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON UHP 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | DE0000486 | DE0000612 | DE0000224 |
| Sample Date | | Client Info | | 04 Jun 2024 | 25 Oct 2023 | 15 Jun 2023 |
| Machine Age | mls | Client Info | | 261533 | 246602 | 230149 |
| Oil Age | mls | Client Info | | 261533 | 15000 | 11000 |
| Filter Age | mls | Client Info | | 261533 | 15000 | 11000 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | N/A | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >110 | 29 | 31 | 16 |
| Chromium | ppm | ASTM D5185m | >4 | 2 | 1 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 2 | 7 |
| Lead | ppm | ASTM D5185m | >45 | 6 | 7 | 3 |
| Copper | ppm | ASTM D5185m | >85 | 4 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

There is no indication of any contamination in the oil.

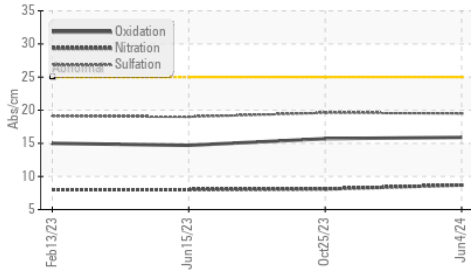
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >30 | 5 | 3 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 5 | 4 | <1 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.3 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.7 | 8.1 | 8.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.5 | 19.6 | 19.0 |
| 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 |

FLUID CONDITION

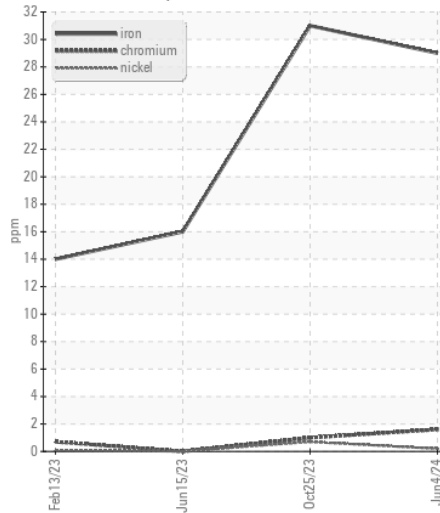
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|-------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 2 | 3 | 2 |
| Boron | ppm | ASTM D5185m | 2 | 5 | 7 | 6 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 66 | 55 | 63 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 1010 | 1010 | 884 | 1043 |
| Calcium | ppm | ASTM D5185m | 1070 | 1129 | 1000 | 1213 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1080 | 1054 | 1094 |
| Zinc | ppm | ASTM D5185m | 1270 | 1277 | 1194 | 1431 |
| Sulfur | ppm | ASTM D5185m | 2060 | 2820 | 2968 | 4026 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.9 | 15.7 | 14.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.4 | 8.2 | 8.8 |
| Visc @ 100°C | cSt | ASTM D445 | 15.52 | 12.9 | 13.0 | 12.9 |

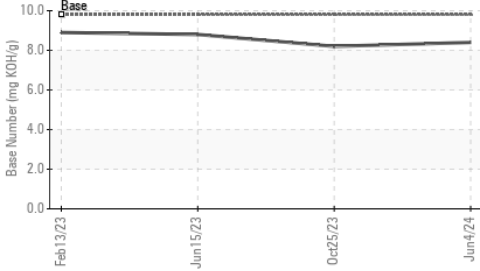
FT-IR (Direct Trend)



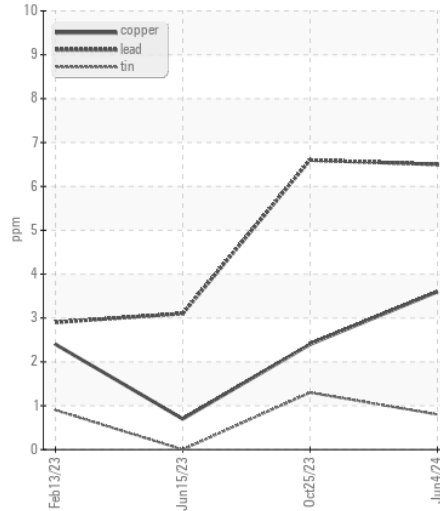
Ferrous Alloys



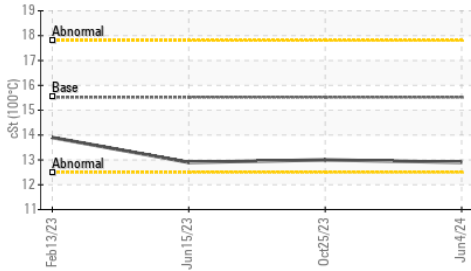
Base Number



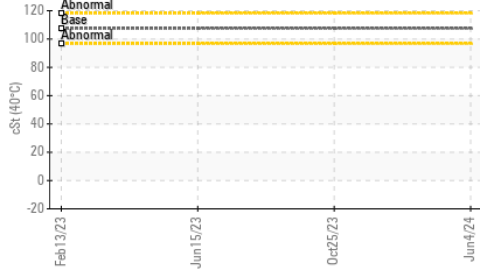
Non-ferrous Metals



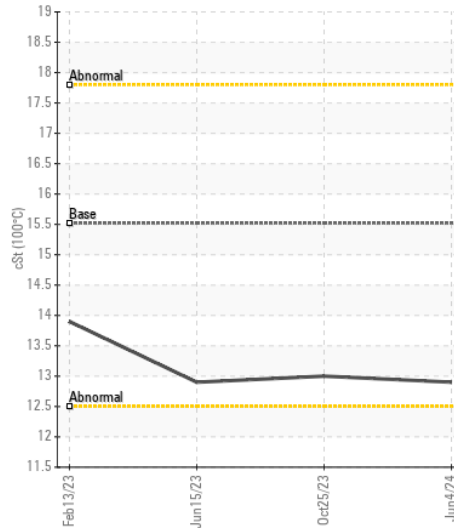
Viscosity @ 100°C



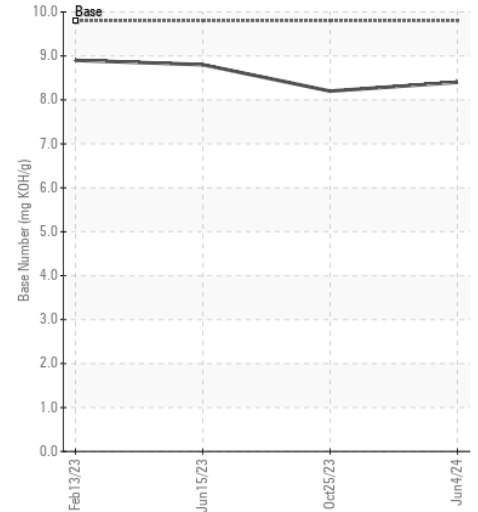
Viscosity @ 40°C



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DE0000486 **Received** : 28 Jun 2024
Lab Number : 06224194 **Tested** : 01 Jul 2024
Unique Number : 11102391 **Diagnosed** : 01 Jul 2024 - Angela Borella
Test Package : FLEET (Additional Tests: KV40)

Iroquois Bar Corp.
 155 Commerce Drive
 Lacakwana, NY
 US 14218
 Contact: Denver Persinger
 dpersinger@iroquoisbar.com
 T:
 F:

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)