



OIL ANALYSIS REPORT

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

Machine Id
SUTPHEN 4035
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (38 LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0877844 | WC0755046 | WC0623546 |
| Sample Date | | Client Info | | 02 Jan 2024 | 03 Nov 2022 | 09 Apr 2022 |
| Machine Age | hrs | Client Info | | 5903 | 79896 | 67610 |
| Oil Age | hrs | Client Info | | 695 | 12286 | 9240 |
| Filter Age | hrs | Client Info | | 695 | 12286 | 9240 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >165 | 33 | 16 | 10 |
| Chromium | ppm | ASTM D5185(m) | >5 | 2 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 2 | 1 | 1 |
| Lead | ppm | ASTM D5185(m) | >150 | 11 | 2 | <1 |
| Copper | ppm | ASTM D5185(m) | >90 | 3 | 3 | 3 |
| Tin | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

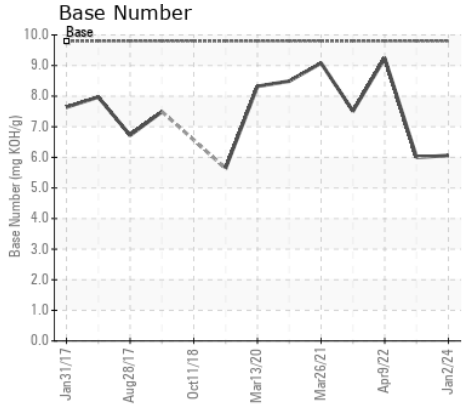
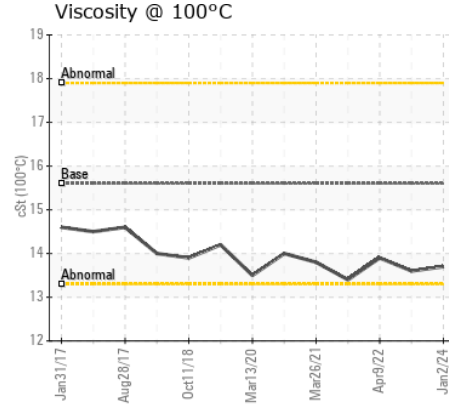
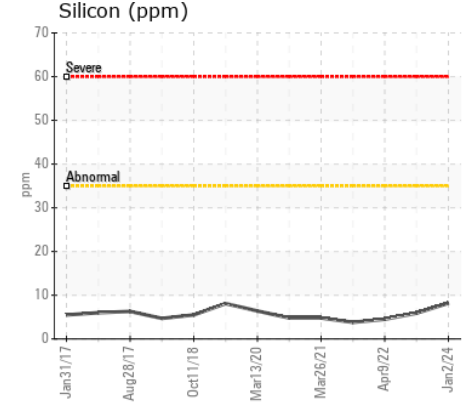
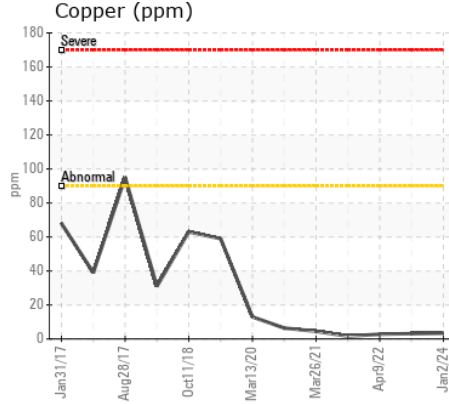
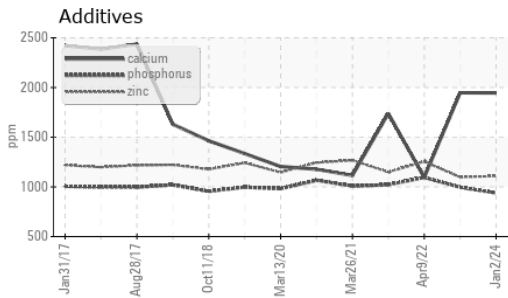
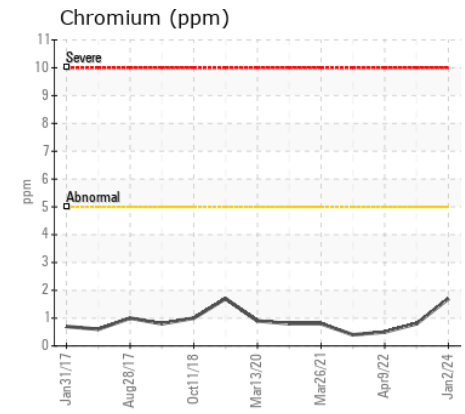
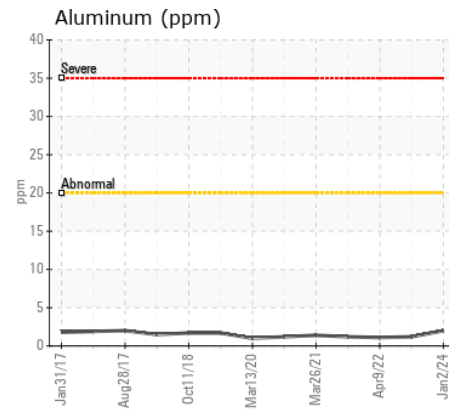
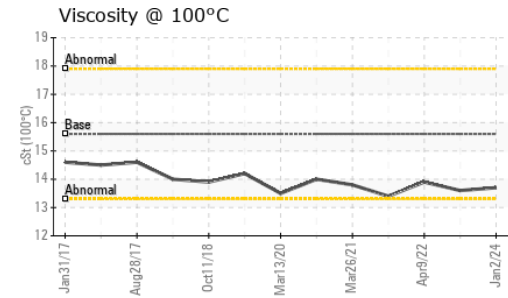
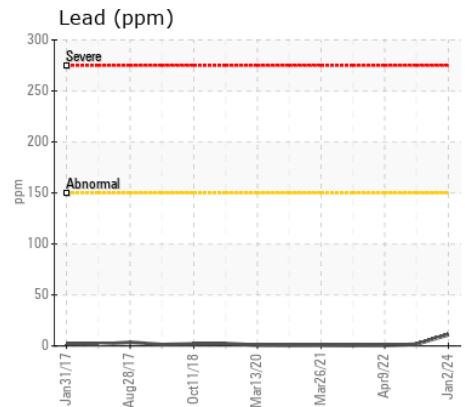
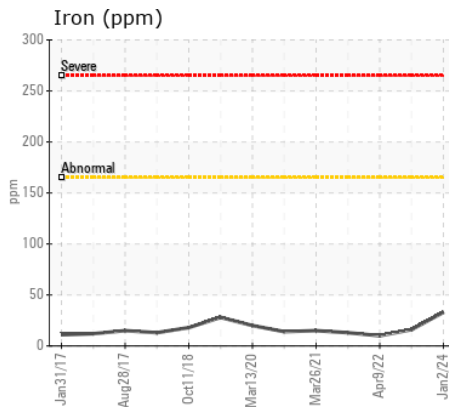
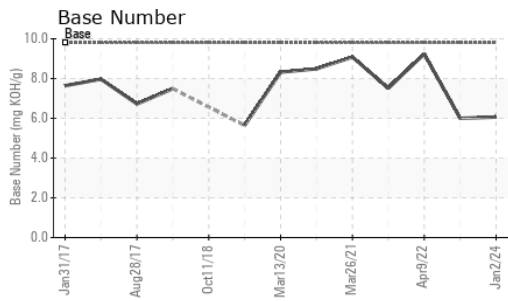
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >35 | 8 | 6 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 3 | 1 | <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* | >7.5 | 1.6 | 0.9 | 0.4 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 11.0 | 9.6 | 8.3 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 28.0 | 23.7 | 21.9 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
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 D5185(m) | | 2 | 2 | 1 |
| Boron | ppm | ASTM D5185(m) | 0 | 3 | 4 | 6 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 22 | 23 | 60 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 320 | 331 | 975 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1945 | 1947 | 1095 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 938 | 996 | 1095 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1109 | 1098 | 1255 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2983 | 2844 | 2723 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 17.4 | 14.3 | 15.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896* | 9.8 | 6.06 | 6.00 | 9.24 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.6 | 13.7 | 13.6 | 13.9 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0877844 **Received** : 05 Jan 2024
Lab Number : 02606687 **Diagnosed** : 05 Jan 2024
Unique Number : 5707773 **Diagnostician** : Wes Davis
Test Package : MOB 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 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.

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