



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

Area
[83655]
 Machine Id
19 GREENBELT DRIVE NORTH YORK EA GROUP 11903820

Component
Right Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PN0005733 | PN0004333 | PN0003126 |
| Sample Date | | Client Info | | 05 Jan 2024 | 19 Dec 2022 | 11 Dec 2021 |
| Machine Age | hrs | Client Info | | 688 | 673 | 659 |
| Oil Age | hrs | Client Info | | 673 | 30 | 16 |
| Filter Age | hrs | Client Info | | 673 | 30 | 16 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Not Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >90 | <1 | 1 | 1 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | 2 | 2 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

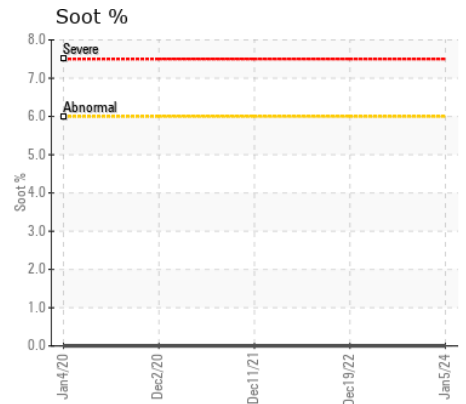
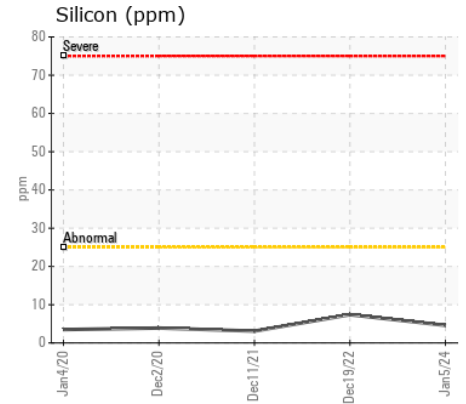
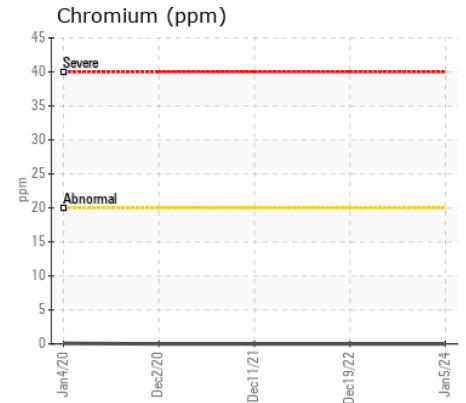
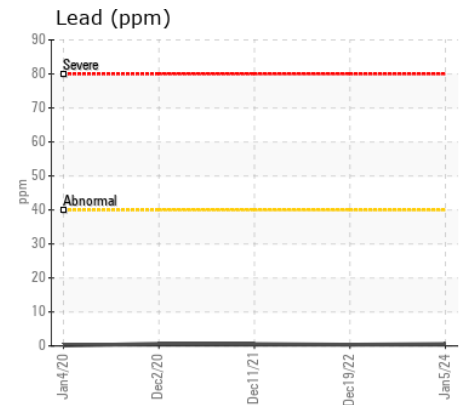
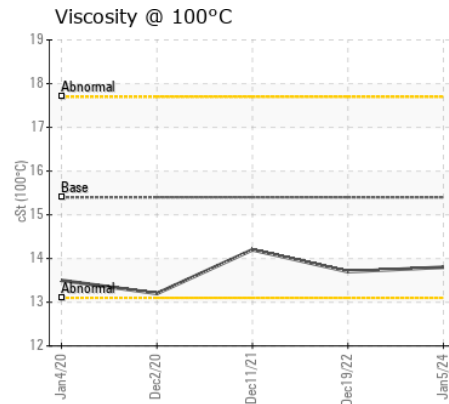
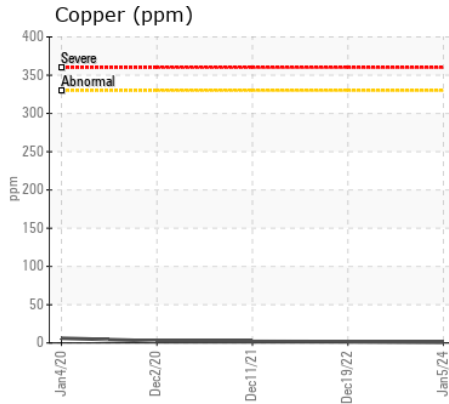
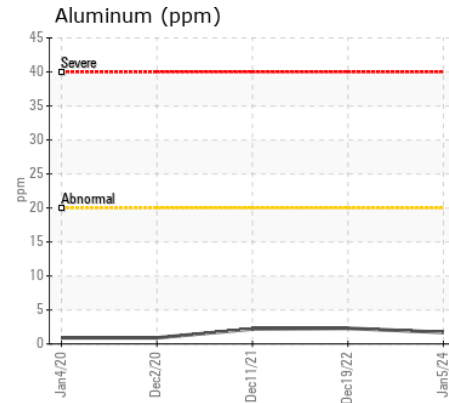
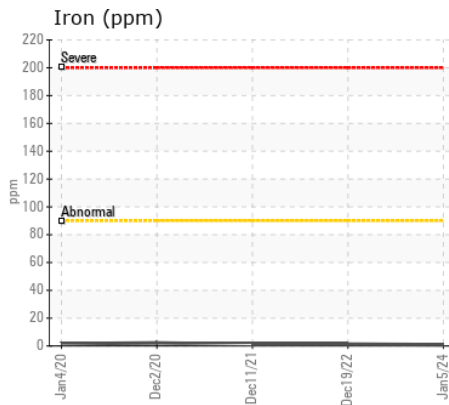
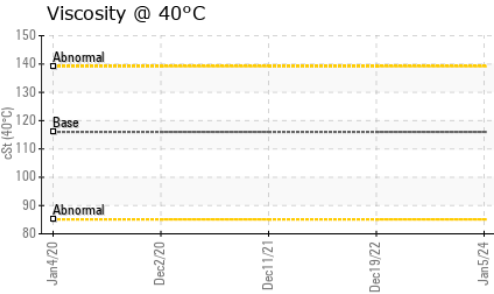
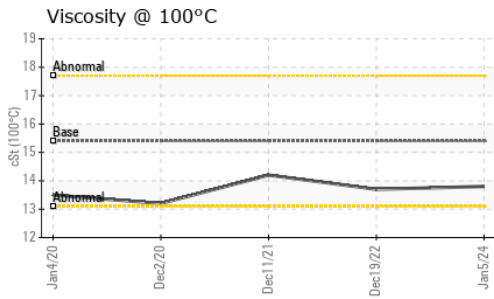
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 5 | 7 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <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* | >6 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 6.5 | 5.7 | 7.2 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 17.0 | 16.1 | 18.8 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|----------------------|----------|---------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | >192 | <1 | 2 | 2 |
| Boron | ppm | ASTM D5185(m) | | 61 | 79 | 80 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 25 | 81 | 83 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 210 | 34 | 81 |
| Calcium | ppm | ASTM D5185(m) | 3780 | 1828 | 2262 | 2134 |
| Phosphorus | ppm | ASTM D5185(m) | 1370 | 1001 | 1076 | 1067 |
| Zinc | ppm | ASTM D5185(m) | 1500 | 1094 | 1146 | 1168 |
| Sulfur | ppm | ASTM D5185(m) | 3800 | 3311 | 3244 | 3339 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 12.3 | 9.7 | 13.2 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 116 | 99.2 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 13.8 | 13.7 | 14.2 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 140 | 140 | --- | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PN0005733 **Received** : 09 Jan 2024
Lab Number : 02607449 **Diagnosed** : 09 Jan 2024
Unique Number : 5708535 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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.

POWER STATION INC.
 1050 JAYSON COURT
 MISSISSAUGA, ON
 CA L4W 2V5
 Contact: Brett Kinkley
 Bkinkley@pwrstn.com
 T:
 F: (905)565-8544