



OIL ANALYSIS REPORT

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

Machine Id
NOVA BUS 160
Component
Rear Diesel Engine
Fluid
ESSO XD-3 EXTRA 15W40 (24 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0889133 | WC0889177 | WC0730986 |
| Sample Date | | Client Info | | 15 Feb 2024 | 27 Dec 2023 | 07 Nov 2023 |
| Machine Age | kms | Client Info | | 0 | 0 | 0 |
| Oil Age | kms | Client Info | | 9083 | 10139 | 10656 |
| Filter Age | kms | Client Info | | 9083 | 10139 | 10656 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >75 | 30 | 35 | 52 |
| Chromium | ppm | ASTM D5185(m) | >5 | 1 | 1 | 3 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >15 | 3 | 3 | 4 |
| Lead | ppm | ASTM D5185(m) | >25 | <1 | <1 | 2 |
| Copper | ppm | ASTM D5185(m) | >100 | <1 | 1 | 2 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

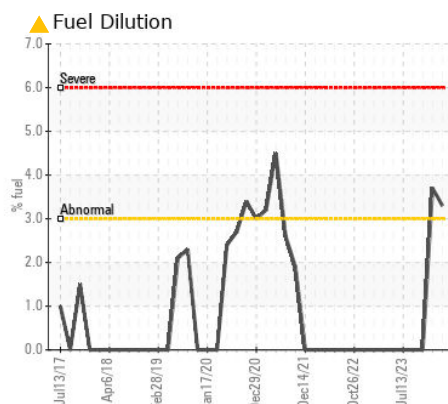
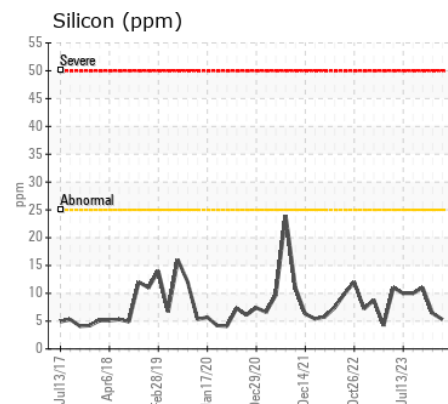
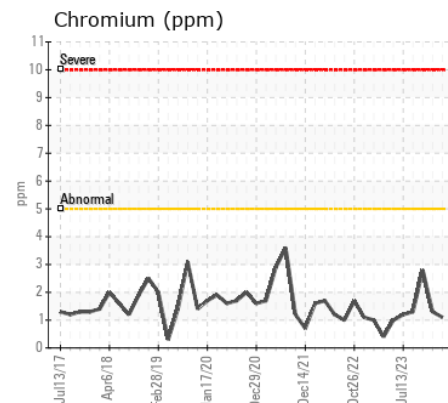
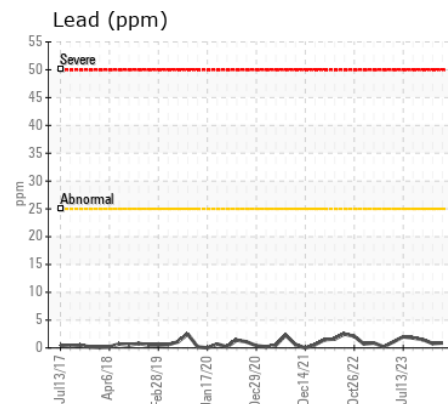
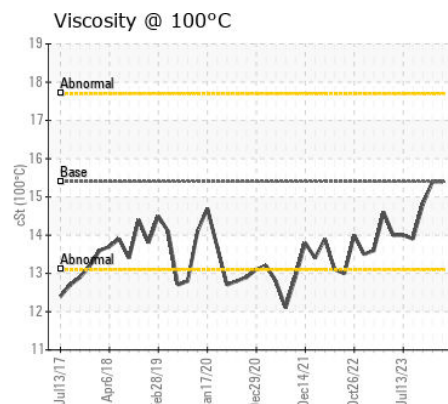
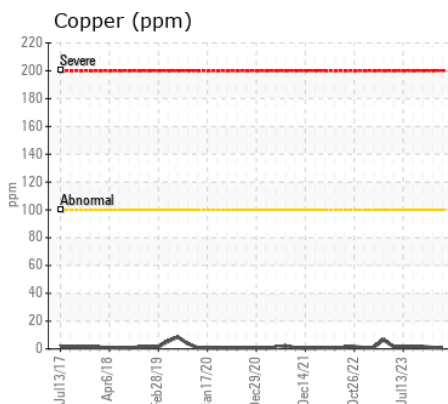
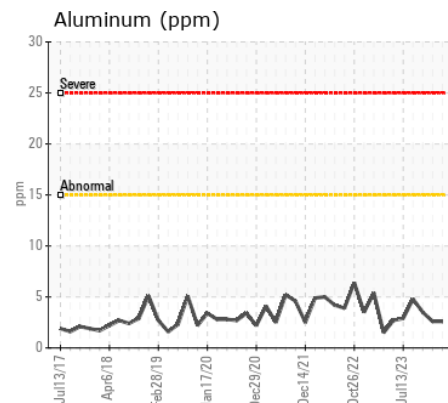
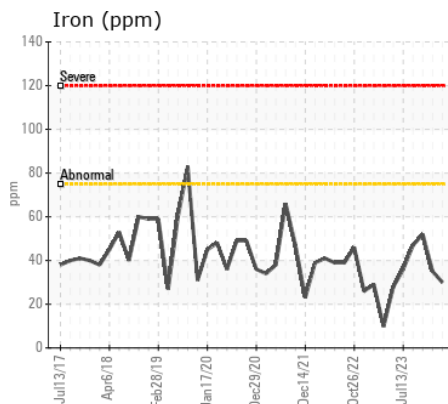
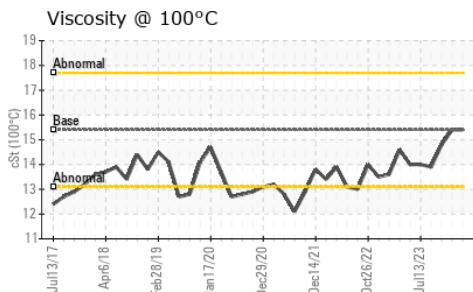
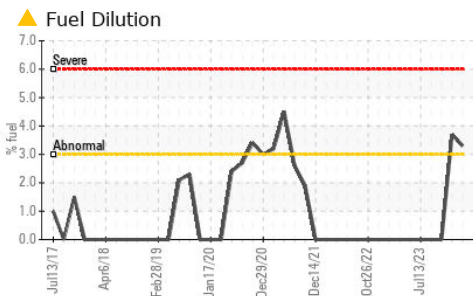
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

| | | | | | | |
|------------------|----------|---------------|------|--------------|-------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 5 | 6 | 11 |
| Potassium | ppm | ASTM D5185(m) | >20 | 9 | 8 | 8 |
| Fuel | % | ASTM D7593* | >3.0 | ▲ 3.3 | ▲ 3.7 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >6 | 1.7 | 1.6 | 1.6 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 13.5 | 13.6 | 13.2 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 30.3 | 30.7 | 32.7 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

| | | | | | | |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | >192 | 11 | 12 | 14 |
| Boron | ppm | ASTM D5185(m) | | 64 | 69 | 58 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | | 1 | <1 | <1 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 22 | 16 | 19 |
| Calcium | ppm | ASTM D5185(m) | 3780 | 2459 | 2419 | 2414 |
| Phosphorus | ppm | ASTM D5185(m) | 1370 | 1013 | 1002 | 956 |
| Zinc | ppm | ASTM D5185(m) | 1500 | 1222 | 1221 | 1215 |
| Sulfur | ppm | ASTM D5185(m) | 3800 | 2939 | 2979 | 2759 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 27.4 | 28.1 | 32.4 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 15.4 | 15.4 | 14.8 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889133 **Received** : 28 Feb 2024
Lab Number : 02618653 **Tested** : 29 Feb 2024
Unique Number : 5735763 **Diagnosed** : 29 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

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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.