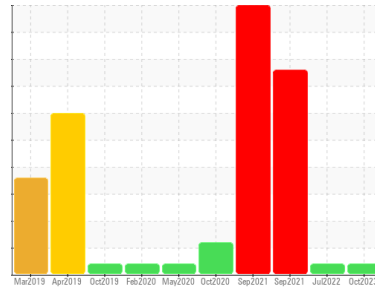




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
MIX CENTER 3 - WEST (S/N 10037016)

Component
Gearbox

Fluid
PETRO CANADA PURITY FG EP GEAR FLUID 460 (--- GAL)

DIAGNOSIS

▲ 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

Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0851710 | WC0483222 | WC0621316 |
| Sample Date | Client Info | | 28 Oct 2023 | 13 Jul 2022 | 06 Sep 2021 |
| Machine Age | mths | Client Info | 6 | 6 | 0 |
| Oil Age | mths | Client Info | 6 | 6 | 0 |
| Oil Changed | Client Info | | N/A | Not Changd | N/A |
| Sample Status | | | ATTENTION | ATTENTION | SEVERE |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.2 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|------------------|------------|----------|----------|
| PQ | ASTM D8184 | | 51 | 12 | 112 |
| Iron | ppm | ASTM D5185m >200 | 78 | 10 | ▲ 469 |
| Chromium | ppm | ASTM D5185m >15 | 0 | 0 | 1 |
| Nickel | ppm | ASTM D5185m >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >25 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185m >100 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >200 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m >25 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185m >5 | --- | --- | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-----------------|------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 2 |
| Barium | ppm | ASTM D5185m | 2 | 2 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 4 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | 0 | 5 | 3 |
| Phosphorus | ppm | ASTM D5185m 135 | 463 | 535 | 527 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m 660 | 763 | 1071 | 519 |

CONTAMINANTS

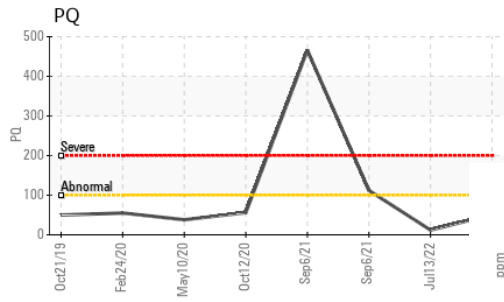
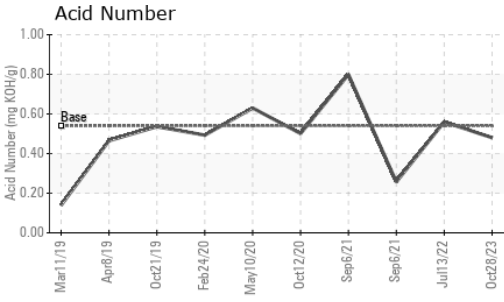
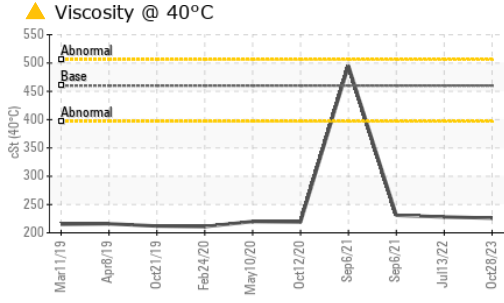
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >50 | 2 | 3 | 6 |
| Sodium | ppm | ASTM D5185m | <1 | 1 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | <1 | 2 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.54 | 0.48 | 0.56 | 0.257 |



OIL ANALYSIS REPORT

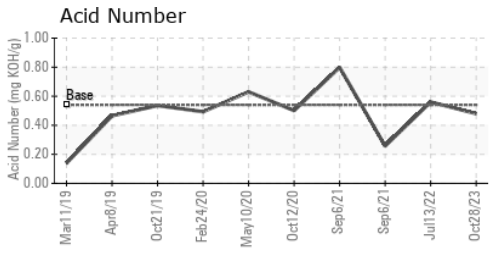
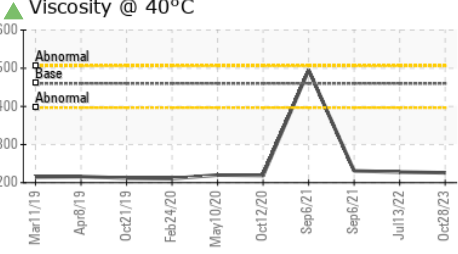
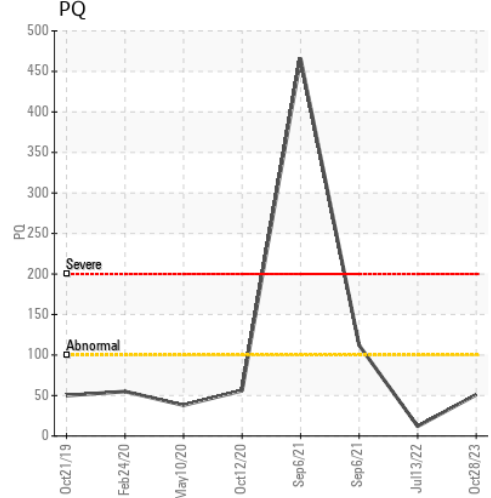
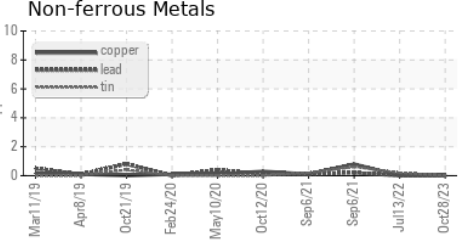
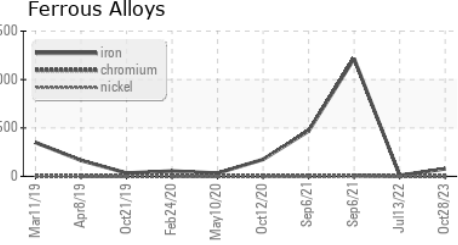


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | VLITE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | VLITE | VLITE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | 0.2% |
| Free Water | scalar | *Visual | | NEG | 🔴 >10% |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 460 | ▲ 226 | ▲ 228 | ▲ 230.9 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | no image | no image |
| Bottom | | | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0851710 **Recieved** : 11 Jan 2024
Lab Number : 06058288 **Diagnosed** : 14 Jan 2024
Unique Number : 10829670 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: PQ)

WORTHINGTON FOODS INC
 1675 FAIRVIEW ROAD
 ZANESVILLE, OH
 US 43701-5168
 Contact: Service Manager

Certificate L2367
 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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F: