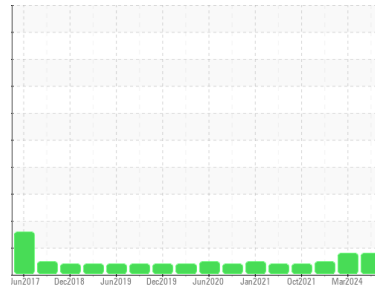




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

SPAM CANNING

Machine Id

B58933 - HOPPER TWIN SCREW FOILER SOUTH

Component

Gearbox

Fluid

PETRO CANADA PURITY FG EP GEAR OIL 220 (3 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0943532 | WC0894867 | WC0775077 |
| Sample Date | Client Info | | 12 Jun 2024 | 05 Mar 2024 | 23 Aug 2023 |
| Machine Age | mths | Client Info | 0 | 0 | 0 |
| Oil Age | mths | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | ATTENTION | ABNORMAL | NORMAL |

CONTAMINATION

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

WEAR METALS

| | method | limit/base | current | history1 | history2 | |
|----------|--------|-------------|---------|------------|----------|-----|
| Iron | ppm | ASTM D5185m | >200 | 15 | 20 | 13 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 3 | 4 | 5 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 1 |
| Aluminum | ppm | ASTM D5185m | >25 | 7 | 9 | 9 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >25 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | >5 | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 | |
|------------|--------|-------------|---------|-------------|----------|-----|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Calcium | ppm | ASTM D5185m | | 39 | 53 | 54 |
| Phosphorus | ppm | ASTM D5185m | | 380 | 391 | 413 |
| Zinc | ppm | ASTM D5185m | | 15 | 5 | 12 |
| Sulfur | ppm | ASTM D5185m | | 1258 | 992 | 867 |

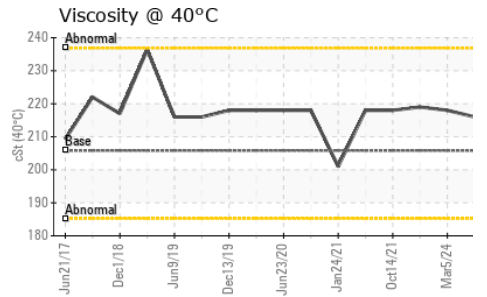
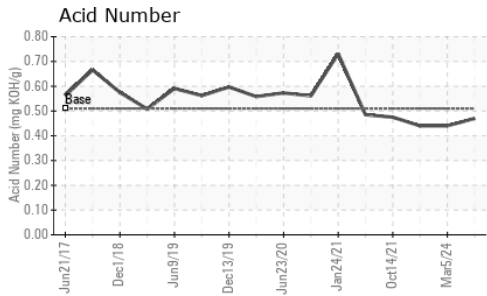
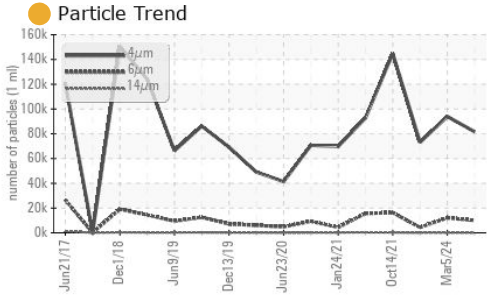
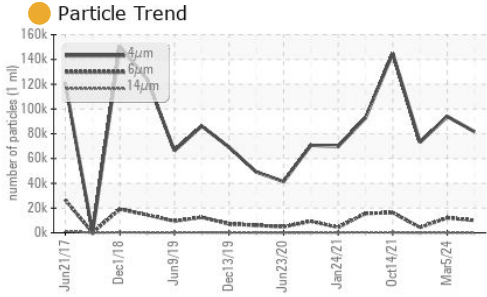
CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|-------------|---------|----------|----------|---|
| Silicon | ppm | ASTM D5185m | >50 | 2 | 3 | 5 |
| Sodium | ppm | ASTM D5185m | | 5 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 2 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|------------|----------|
| Particles >4µm | ASTM D7647 | | 81666 | 93912 | 73114 |
| Particles >6µm | ASTM D7647 | >5000 | 9961 | ▲ 12082 | 4361 |
| Particles >14µm | ASTM D7647 | >640 | 100 | 122 | 56 |
| Particles >21µm | ASTM D7647 | >160 | 15 | 17 | 11 |
| Particles >38µm | ASTM D7647 | >40 | 3 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >10 | 3 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/19/16 | 24/20/14 | ▲ 24/21/14 | 23/19/13 |

OIL ANALYSIS REPORT



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.51 | 0.47 | 0.44 | 0.44 |

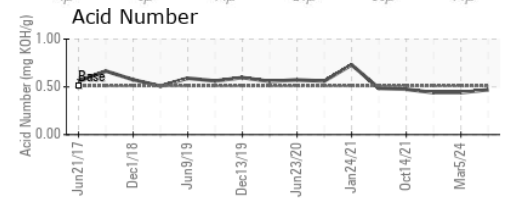
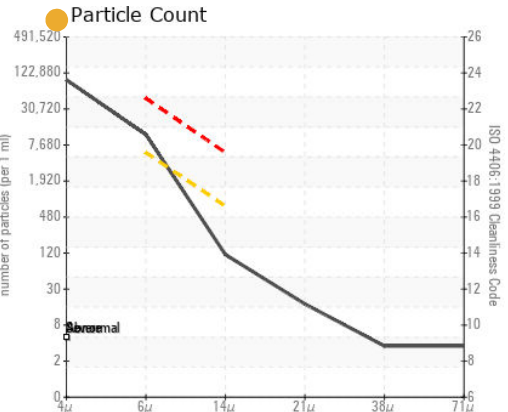
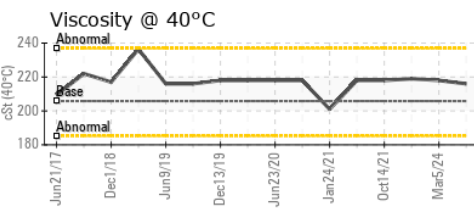
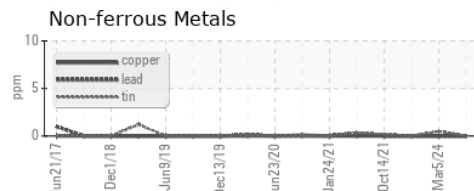
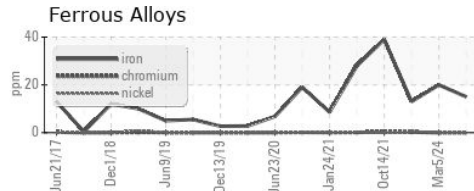
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 205.8 | 216 | 218 | 219 |

SAMPLE IMAGES

| method | limit/base | current | history1 | history2 |
|--------|------------|---------|----------|----------|
| Color | | | | |
| Bottom | | | | |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0943532 **Received** : 13 Jun 2024
Lab Number : 06208690 **Tested** : 14 Jun 2024
Unique Number : 11076151 **Diagnosed** : 15 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

PROGRESSIVE PROCESSING INC
 1205 CHAVENELLE CT
 DUBUQUE, IA
 US 52002
 Contact: BLAINE PURDY
 bepurdy@hormel.com
 T: (563)557-4500
 F: (563)557-4508

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)