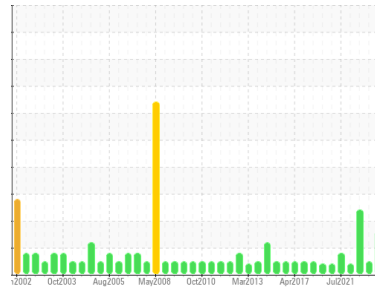




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
BDE - UNIT 6 GENERATOR BEARING (S/N 59811)

Component
Bearing

Fluid
PETRO CANADA TURBOFLO XL46 (1435 LTR)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material and/or dirt.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0762267 | WC0682610 | WC |
| Sample Date | Client Info | | 29 Feb 2024 | 05 Jun 2023 | 27 Dec 2022 |
| Machine Age | hrs | Client Info | 88507 | 88507 | 0 |
| Oil Age | hrs | Client Info | 88507 | 88507 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | ABNORMAL | NORMAL | ATTENTION |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >2 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Iron | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | 3 | 11 | 38 |
| Copper | ppm | ASTM D5185(m) | >20 | <1 | 0 | <1 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 | |
|------------|--------|---------------|---------|--------------|----------|------|
| Boron | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185(m) | | 0 | 0 | 5 |
| Phosphorus | ppm | ASTM D5185(m) | | 2 | 1 | 44 |
| Zinc | ppm | ASTM D5185(m) | 0 | <1 | <1 | 41 |
| Sulfur | ppm | ASTM D5185(m) | | 467 | 564 | 1299 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

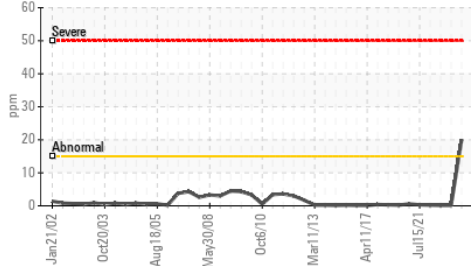
CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Silicon | ppm | ASTM D5185(m) | >15 | ▲ 20 | <1 | <1 |
| Sodium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 0 | 0 |

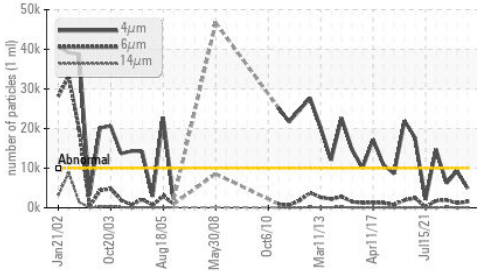
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >10000 | 4915 | 9260 | 6177 |
| Particles >6µm | ASTM D7647 | >2500 | 1541 | 1186 | 1917 |
| Particles >14µm | ASTM D7647 | >160 | 116 | 32 | 187 |
| Particles >21µm | ASTM D7647 | >40 | 23 | 6 | 59 |
| Particles >38µm | ASTM D7647 | >10 | 2 | 1 | 3 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 1 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >20/18/14 | 19/18/14 | 20/17/12 | 20/18/15 |

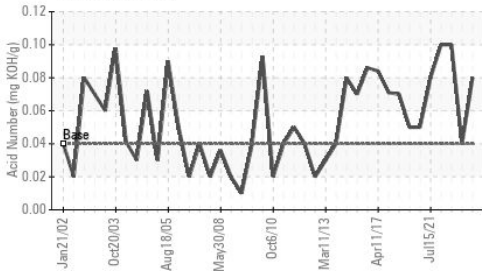
▲ Silicon (ppm)



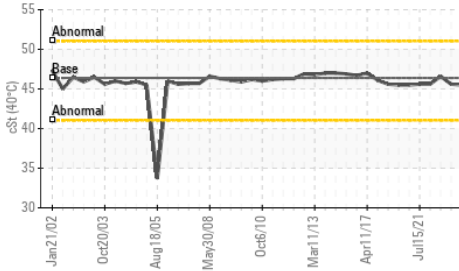
Particle Trend



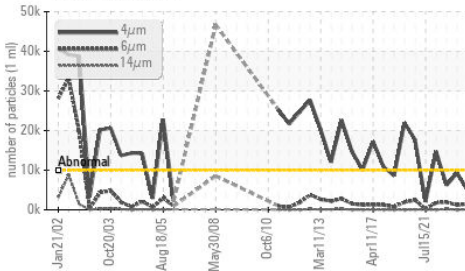
Acid Number



Viscosity @ 40°C



Particle Trend



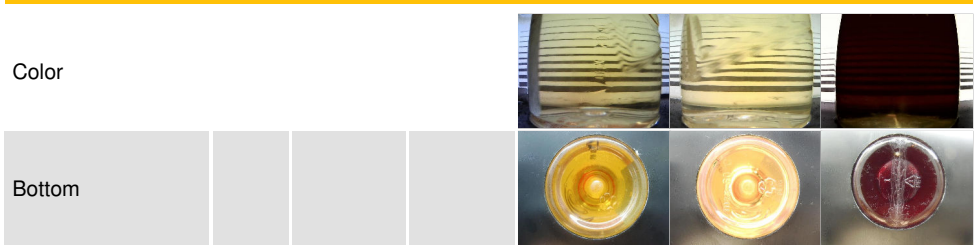
FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | | |
|---------------------------|------------|---------|-------------|--------------|----------|----------|
| Acid Number (AN) mg KOH/g | ASTM D974* | 0.04 | 0.08 | 0.04 | 0.10 | |
| 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 | VLITE | 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* | >2 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

FLUID PROPERTIES

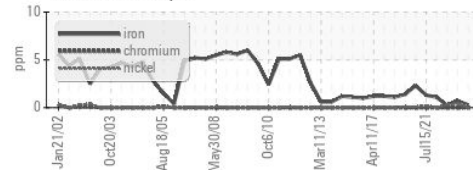
| method | limit/base | current | history1 | history2 | |
|-----------------|---------------|---------|-------------|----------|------|
| Visc @ 40°C cSt | ASTM D7279(m) | 46.39 | 45.5 | 45.6 | 46.6 |

SAMPLE IMAGES

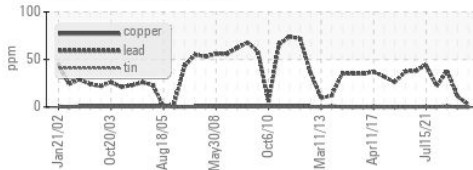


GRAPHS

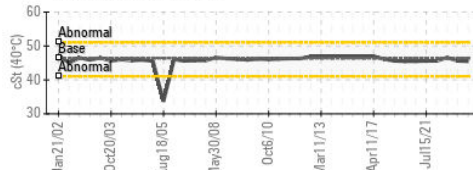
Ferrous Alloys



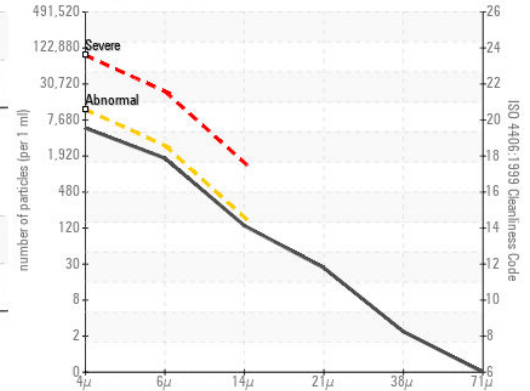
Non-ferrous Metals



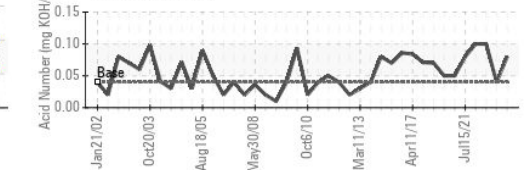
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0762267
Lab Number : **02625300**
Unique Number : 5750419
Test Package : IND 2 (Additional Tests: TAN Man)
Received : 28 Mar 2024
Tested : 01 Apr 2024
Diagnosed : 01 Apr 2024 - Kevin Marson

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 F: (709)882-3161

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.