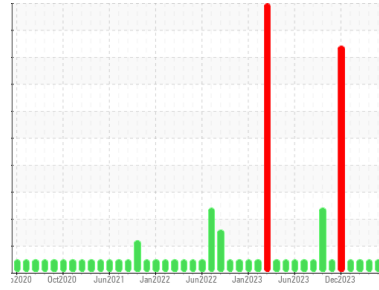


OIL ANALYSIS REPORT

Area
TEAM 1
Machine Id
122553 Turbo Generator
Component
Hydraulic System
Fluid
PETRO CANADA TURBOFLO R&O 32 (1250 GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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 | | | PC0080400 | PC0078775 | PC0078800 |
| Sample Date | Client Info | | | 27 Jun 2024 | 28 May 2024 | 22 Jan 2024 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.05 | NEG | NEG | NEG |

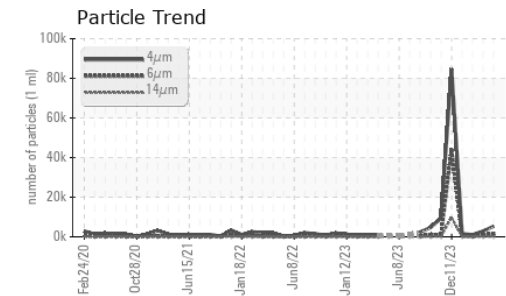
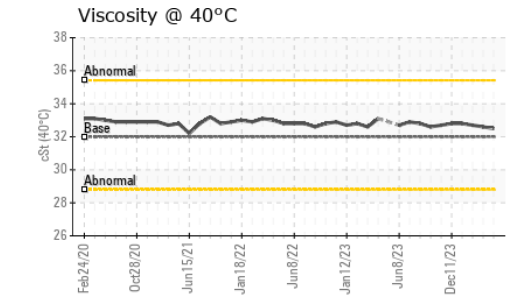
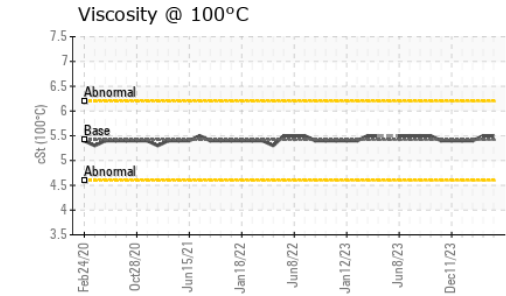
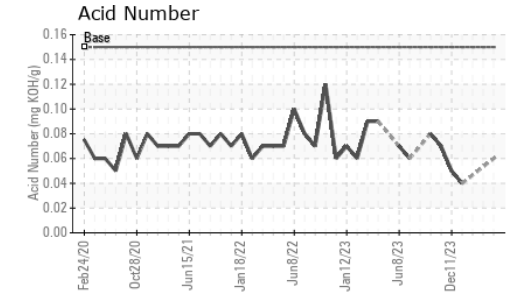
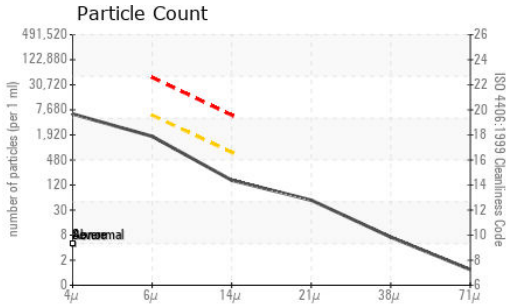
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) | >20 | 1 | <1 | 2 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185(m) | >20 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| 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 | <1 | 0 |
| Barium | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | <1 | <1 | 0 |
| Calcium | ppm | ASTM D5185(m) | 0 | <1 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) | 4 | 5 | 5 | 12 |
| Zinc | ppm | ASTM D5185(m) | 0 | 2 | 2 | 3 |
| Sulfur | ppm | ASTM D5185(m) | | 393 | 403 | 1161 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

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

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 5327 | 2880 | 1082 |
| Particles >6µm | | ASTM D7647 | >5000 | 1553 | 912 | 309 |
| Particles >14µm | | ASTM D7647 | >640 | 138 | 88 | 23 |
| Particles >21µm | | ASTM D7647 | >160 | 46 | 27 | 8 |
| Particles >38µm | | ASTM D7647 | >40 | 6 | 2 | 1 |
| Particles >71µm | | ASTM D7647 | >10 | 1 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/19/16 | 20/18/14 | 19/17/14 | 17/15/12 |

OIL ANALYSIS REPORT

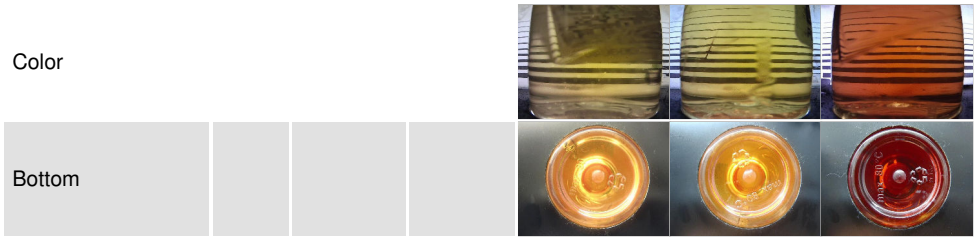


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.15 | 0.06 | --- | --- |

| 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* | >0.05 | 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) | 32.0 | 32.5 | 32.6 | 32.7 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 5.42 | 5.5 | 5.5 | 5.4 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 103 | 104 | 104 | 97 |

SAMPLE IMAGES



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080400
Lab Number : **02646231**
Unique Number : 5811783
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

Received : 08 Jul 2024
Tested : 09 Jul 2024
Diagnosed : 09 Jul 2024 - Wes Davis

Dryden Fibre
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 Dryden, ON
 CA P8N 2Z7
 Contact: Adebukola Adekanye
 aadekanye@drydenfibre.ca
 T: (807)223-9950
 F: (807)223-9176

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.