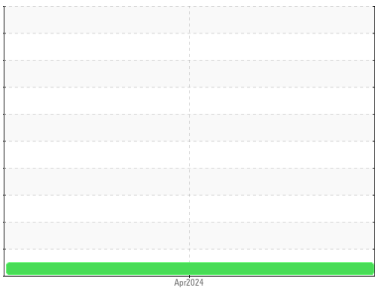
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
**South Molding**
Machine Id
**Press 7**
Component
**Gear Drive**
Fluid
**PETRO CANADA (10 GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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 | | **SBP0007435** | --- | --- |
| Sample Date | | Client Info | | **18 Apr 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **Not Changd** | --- | --- |
| Sample Status | | | | **NORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **16** | --- | --- |
| Iron | ppm | ASTM D5185m | >150 | **1** | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Silver | ppm | ASTM D5185m | | **<1** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **3** | --- | --- |
| Lead | ppm | ASTM D5185m | >100 | **<1** | --- | --- |
| Copper | ppm | ASTM D5185m | >50 | **<1** | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **<1** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 42 | **<1** | --- | --- |
| Barium | ppm | ASTM D5185m | 0.0 | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0.0 | **<1** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | 235 | **<1** | --- | --- |
| Calcium | ppm | ASTM D5185m | 346 | **0** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 309 | **198** | --- | --- |
| Zinc | ppm | ASTM D5185m | 364 | **0** | --- | --- |
| Sulfur | ppm | ASTM D5185m | 1370 | **6616** | --- | --- |

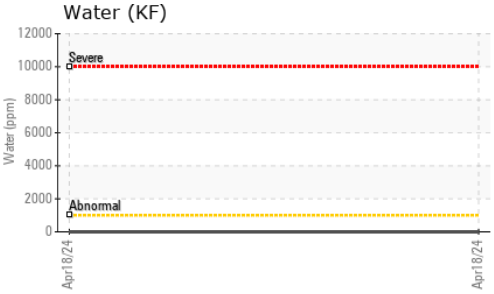
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **8** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **0** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **2** | --- | --- |
| Water | % | ASTM D6304 | >0.1 | **0.00** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >1000 | **0** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | **5369** | --- | --- |
| Particles >6µm | | ASTM D7647 | >5000 | **744** | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | **18** | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | **4** | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | **0** | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | **20/17/11** | --- | --- |

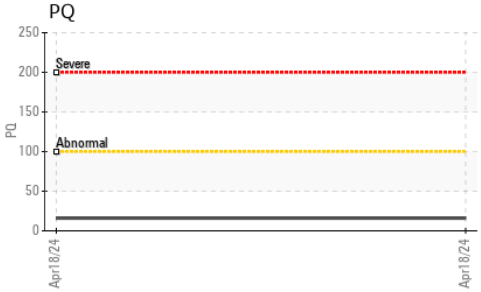
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.52** | --- | --- |

# OIL ANALYSIS REPORT

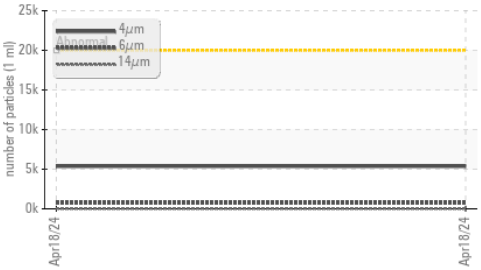
Water (KF)




PQ

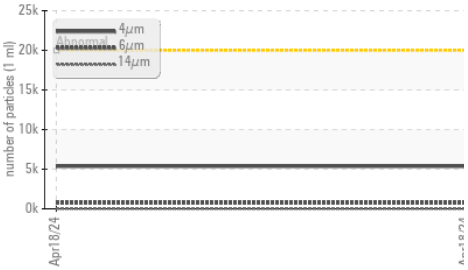



Particle Trend




PQ


Particle Trend



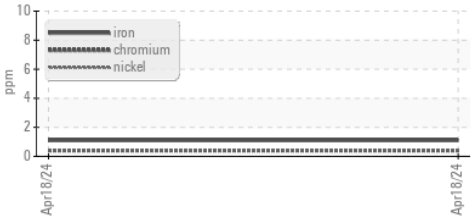

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | **NEG** | --- | --- |
| Free Water | scalar | *Visual | | **NEG** | --- | --- |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 114 | **344** | --- | --- |

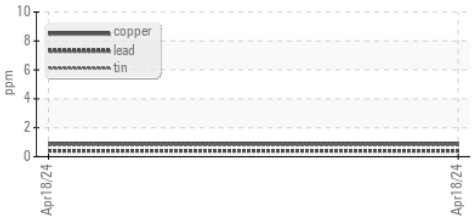
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

GRAPHS

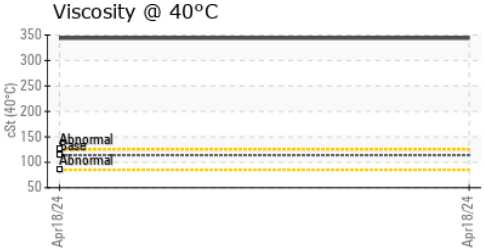
Ferrous Alloys



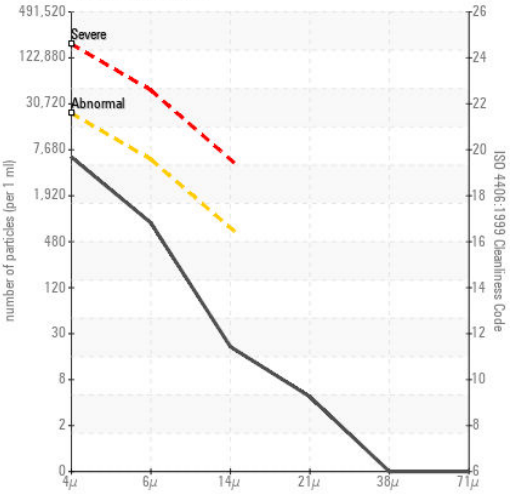

Non-ferrous Metals



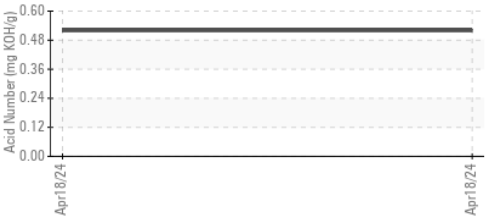

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : SBP0007435
**Lab Number** : 06156970
**Unique Number** : 10992393
**Test Package** : PLANT

**Received** : 22 Apr 2024
**Tested** : 23 Apr 2024
**Diagnosed** : 25 Apr 2024 - Jonathan Hester

*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)*

**BECTON DICKINSON BROKEN BOW**
150 S 1ST AVE
BROKEN BOW, NE
US 68822
Contact: JUSTIN HURLBURT
Justin_W_Hurlburt@bd.com
T:
F:

Report Id: BECBRONE [WUSCAR] 06156970 (Generated: 04/25/2024 07:55:03) Rev: 1

Submitted By: JUSTIN HURLBURT