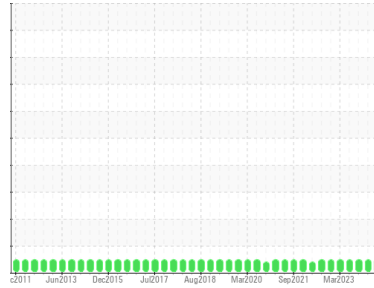




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BRUCE B/5/33120
 Machine Id
5-33120-P2-PM Up Brg
 Component
Upper Bearing
 Fluid
MOBIL DTE 732 (280 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

The Direct-Reading Ferrographic data (DL, DS, %large) is normal. All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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 | | WC0900691 | WC | WC0791620 |
| Sample Date | Client Info | | 11 Mar 2024 | 18 Dec 2023 | 06 Sep 2023 |
| 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 |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >1 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185(m) >1 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >1 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) >5 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >1 | <1 | <1 | 0 |
| Lead | ppm | ASTM D5185(m) >3 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) >1 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185(m) >1 | 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 |

DR-FERROGRAPHY

| | method | limit/base | current | history1 | history2 |
|----------------------------|----------|------------|------------|----------|----------|
| Large Particles | DR-Ferr* | | 2.0 | 17.2 | 1.2 |
| Small Particles | DR-Ferr* | | 0.5 | 2.7 | 1.3 |
| Total Particles | DR-Ferr* | >--- | 2.5 | 19.9 | 2.5 |
| Large Particles Percentage | % | DR-Ferr* | 60 | 72.9 | 0 |
| Severity Index | DR-Ferr* | | 3 | 249 | 0 |

ADDITIVES

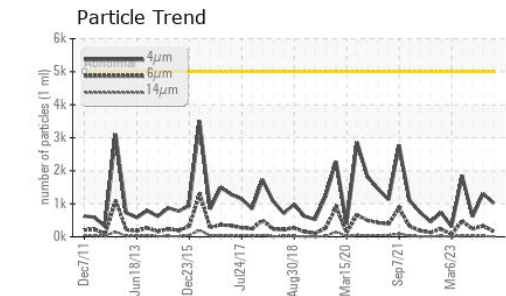
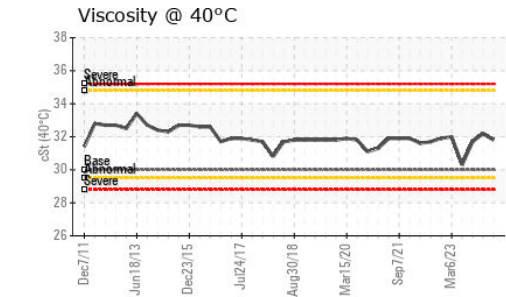
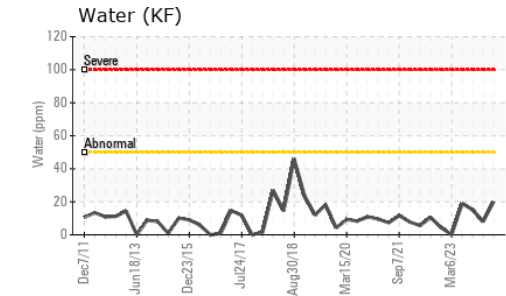
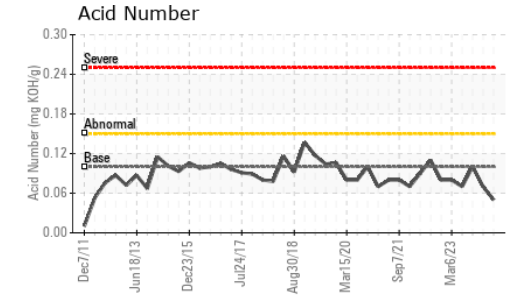
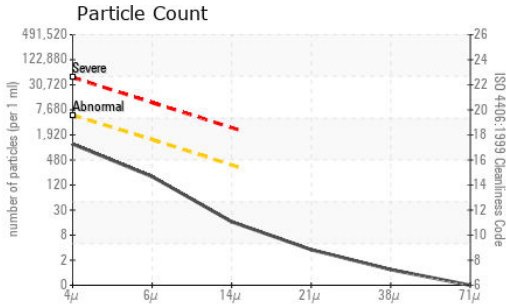
| | method | limit/base | current | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 0 | <1 | 0 |
| Calcium | ppm | ASTM D5185(m) | <1 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Zinc | ppm | ASTM D5185(m) | <1 | <1 | 1 |
| Sulfur | ppm | ASTM D5185(m) | 20 | 17 | 34 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >5 | 0 | 0 | 0 |
| Sodium | ppm | ASTM D5185(m) >5 | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | 0 | <1 |
| Water | % | ASTM D6304* >0.005 | 0.002 | 0.001 | 0.002 |
| ppm Water | ppm | ASTM D6304* >50 | 20 | 8 | 15.2 |



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0900691 **Received** : 19 Mar 2024
Lab Number : **02623072** **Tested** : 20 Mar 2024
Unique Number : 5748191 **Diagnosed** : 20 Mar 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, DR-Ferr)

Bruce Power - Bruce A PdM
 P.O.Box 1540, 177 Tie Road., RM-222 U2 Column 2N11 615
 Tiverton, ON
 CA N0G 2T0
 Contact: Pierre Adouki
 pierre.adouki@brucepower.com
 T: (519)361-2673
 F:

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.

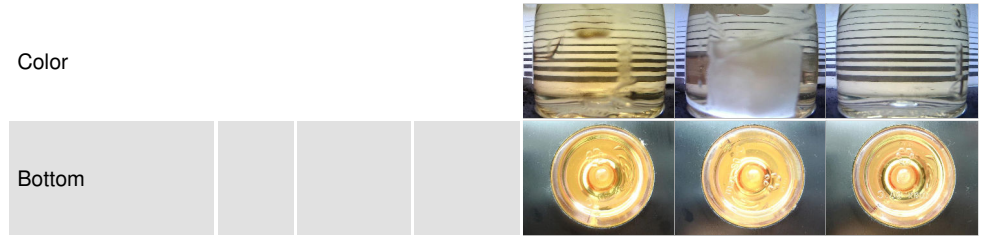
| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 1018 | 1305 | 613 |
| Particles >6µm | ASTM D7647 | >1300 | 168 | 329 | 232 |
| Particles >14µm | ASTM D7647 | >320 | 14 | 20 | 23 |
| Particles >21µm | ASTM D7647 | >80 | 3 | 3 | 7 |
| Particles >38µm | ASTM D7647 | >20 | 1 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/15 | 17/15/11 | 18/16/11 | 16/15/12 |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|---------------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g ASTM D974* | 0.10 | 0.05 | 0.07 | 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 | 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* | >0.005 | 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) | 30.0 | 31.8 | 32.2 | 31.7 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



Color

 Bottom