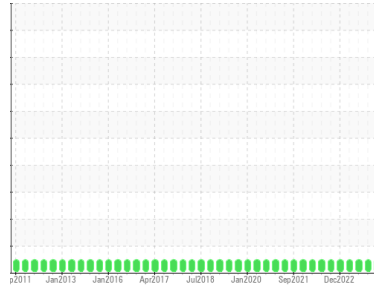




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**BRUCE B/8/33120**  
 Machine Id  
**8-33120-P4-PM Lower Brg**  
 Component  
**Lower Bearing**  
 Fluid  
**MOBIL DTE 732 (30 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 |             | <b>WC0900614</b>   | WC0845375   | WC0791583   |
| Sample Date   | Client Info |             | <b>18 Mar 2024</b> | 11 Jan 2024 | 14 Jul 2023 |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR METALS

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

## DR-FERROGRAPHY

|                            | method   | limit/base | current    | history1 | history2 |
|----------------------------|----------|------------|------------|----------|----------|
| Large Particles            | DR-Ferr* |            | <b>1.7</b> | 4.4      | 2.7      |
| Small Particles            | DR-Ferr* |            | <b>0.8</b> | 3.5      | 2.5      |
| Total Particles            | DR-Ferr* | >---       | <b>2.5</b> | 7.9      | 5.2      |
| Large Particles Percentage | %        | DR-Ferr*   | <b>36</b>  | 11.4     | 3.8      |
| Severity Index             | DR-Ferr* |            | <b>2</b>   | 4        | 1        |

## ADDITIVES

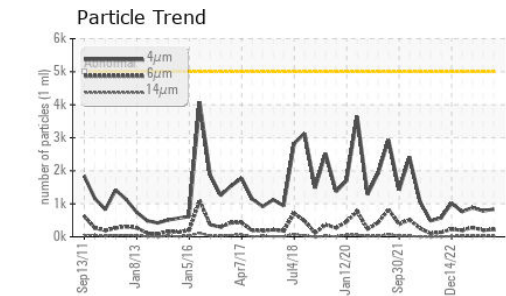
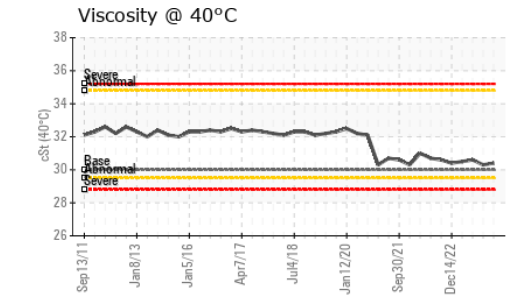
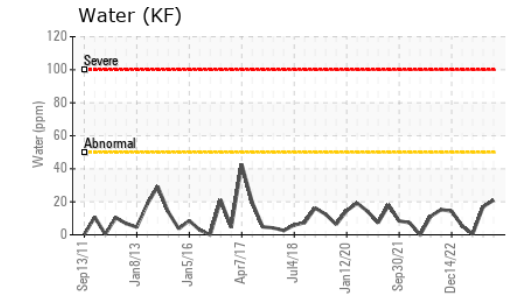
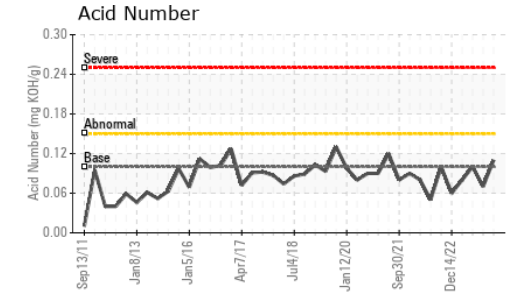
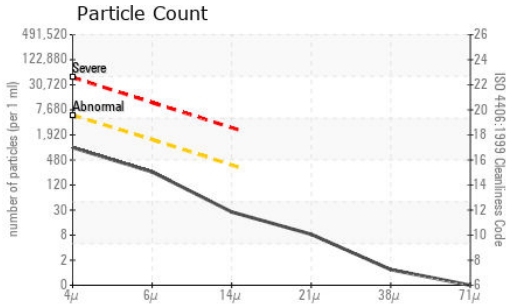
|            | method | limit/base    | current      | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | <1       |
| Barium     | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm    | ASTM D5185(m) | <b>0</b>     | <1       | <1       |
| Calcium    | ppm    | ASTM D5185(m) | <b>0</b>     | <1       | <1       |
| Phosphorus | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | <1       |
| Zinc       | ppm    | ASTM D5185(m) | <b>&lt;1</b> | <1       | 2        |
| Sulfur     | ppm    | ASTM D5185(m) | <b>44</b>    | 34       | 51       |
| Lithium    | ppm    | ASTM D5185(m) | <b>&lt;1</b> | <1       | <1       |

## CONTAMINANTS

|           | method | limit/base         | current      | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >5   | <b>0</b>     | 0        | 0        |
| Sodium    | ppm    | ASTM D5185(m) >5   | <b>&lt;1</b> | 0        | <1       |
| Potassium | ppm    | ASTM D5185(m) >20  | <b>0</b>     | <1       | <1       |
| Water     | %      | ASTM D6304* >0.005 | <b>0.002</b> | 0.002    | 0.001    |
| ppm Water | ppm    | ASTM D6304* >50    | <b>21</b>    | 17       | 0.4      |



# OIL ANALYSIS REPORT



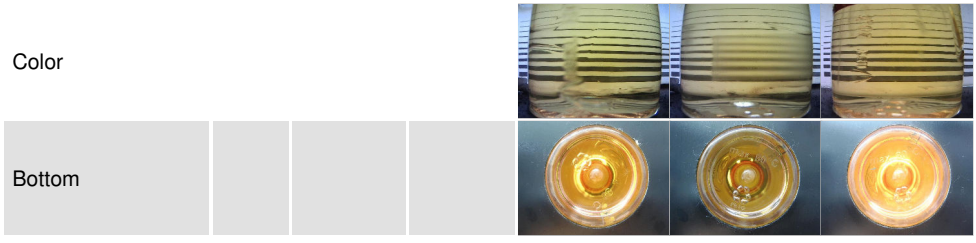
| FLUID CLEANLINESS | method       | limit/base | current         | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm    | ASTM D7647   | >5000      | <b>836</b>      | 786      | 884      |
| Particles >6µm    | ASTM D7647   | >1300      | <b>218</b>      | 203      | 276      |
| Particles >14µm   | ASTM D7647   | >320       | <b>24</b>       | 20       | 34       |
| Particles >21µm   | ASTM D7647   | >80        | <b>7</b>        | 4        | 7        |
| Particles >38µm   | ASTM D7647   | >20        | <b>1</b>        | 1        | 0        |
| Particles >71µm   | ASTM D7647   | >4         | <b>0</b>        | 1        | 0        |
| Oil Cleanliness   | ISO 4406 (c) | >19/17/15  | <b>17/15/12</b> | 17/15/11 | 17/15/12 |

| FLUID DEGRADATION | method              | limit/base | current     | history1 | history2 |
|-------------------|---------------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g ASTM D974* | 0.10       | <b>0.11</b> | 0.07     | 0.10     |

| VISUAL           | method         | limit/base | current      | history1 | history2 |
|------------------|----------------|------------|--------------|----------|----------|
| White Metal      | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Sand/Dirt        | scalar Visual* | NONE       | <b>NONE</b>  | NONE     | VLITE    |
| Appearance       | scalar Visual* | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar Visual* | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar Visual* | >0.005     | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar Visual* |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES | method            | limit/base | current     | history1 | history2 |
|------------------|-------------------|------------|-------------|----------|----------|
| Visc @ 40°C      | cSt ASTM D7279(m) | 30.0       | <b>30.4</b> | 30.3     | 30.6     |

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



Color

Bottom



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0900614  
**Lab Number** : **02624714**  
**Unique Number** : 5749833  
**Test Package** : IND 2 ( Additional Tests: Bottom, DR-Ferr, TAN Man )

**Bruce Power - Bruce A PdM**  
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 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.