

# **OIL ANALYSIS REPORT**

## Sample Rating Trend

NORMAL



# TERTIARY MILL FEED

Component

**Bearing** Fluid

GEAR OIL ISO 220 (--- GAL)

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

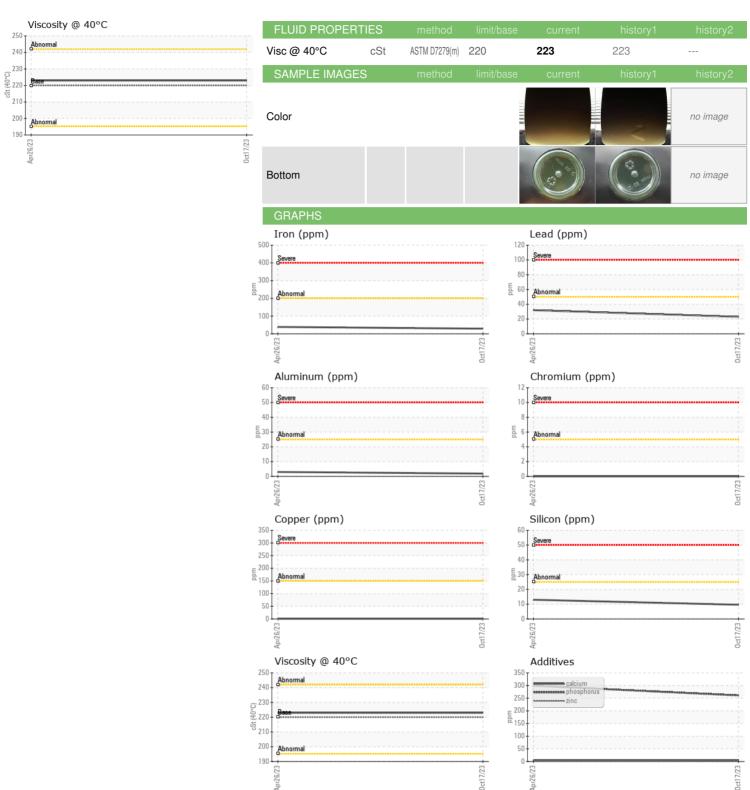
## **Fluid Condition**

The condition of the oil is acceptable for the time in service.

|   |   |   | Apr2023  | Oct2023   |   |                          |
|---|---|---|--|---|---|--------------------------|
| SAMPLE INFORM   | MATION  | method  | limit/base   | current   | history1  | history2                 |
| Sample Number   |   | Client Info   |  | WC0848160   | WC0798652   |                          |
| Sample Date   |   | Client Info   |  | 17 Oct 2023   | 26 Apr 2023   |                          |
| Machine Age   | hrs   | Client Info   |  | 0   | 0   |                          |
| Oil Age   | hrs   | Client Info   |  | 0   | 0   |                          |
| Oil Changed   |   | Client Info   |  | N/A   | N/A   |                          |
| Sample Status   |   |   |  | NORMAL  | NORMAL  |                          |
| WEAR METALS   |   | method  | limit/base   | current   | history1  | history2                 |
| Iron  | ppm   | ASTM D5185(m)   | >200   | 29  | 39  |                          |
| Chromium  | ppm   | ASTM D5185(m)   | >5   | 0   | 0   |                          |
| Nickel  | ppm   | ASTM D5185(m)   | >5   | 0   | <1  |                          |
| Titanium  | ppm   | ASTM D5185(m)   | >5   | 0   | <1  |                          |
| Silver  | ppm   | ASTM D5185(m)   |  | <1  | <1  |                          |
| Aluminum  | ppm   | ASTM D5185(m)   | >25  | 2   | 3   |                          |
| Lead  | ppm   | ASTM D5185(m)   | >50  | 23  | 32  |                          |
| Copper  | ppm   | ASTM D5185(m)   | >150   | <1  | <1  |                          |
| Tin   | ppm   | ASTM D5185(m)   | >10  | 7   | 9   |                          |
| Antimony  | ppm   | ASTM D5185(m)   |  | 2   | 4   |                          |
| Vanadium  | ppm   | ASTM D5185(m)   |  | 0   | 0   |                          |
| Beryllium   | ppm   | ASTM D5185(m)   |  | 0   | 0   |                          |
| Cadmium   | ppm   | ASTM D5185(m)   |  | 0   | 0   |                          |
| ADDITIVES   |   | method  | limit/base   | current   | history1  | history2                 |
| Boron   | ppm   | ASTM D5185(m)   | 50   | 21  | 22  |                          |
| Barium  | ppm   | ASTM D5185(m)   | 15   | <1  | 0   |                          |
| Molybdenum  | ppm   | ASTM D5185(m)   | 15   | 0   | 0   |                          |
| ,   |   | ( /   |  |   |   |                          |
| Manganese   | ppm   | ASTM D5185(m)   |  | 0   | <1  |                          |
| Manganese<br>Magnesium  | ppm   | ASTM D5185(m) ASTM D5185(m)   | 50   | 0<br><1   | <1<br>2   |                          |
| Magnesium   | ppm   | ASTM D5185(m)   |  | <1  | 2   |                          |
| Magnesium<br>Calcium  | ppm   | ASTM D5185(m)<br>ASTM D5185(m)  |  | <1<br>5   |   |                          |
| Magnesium   | ppm<br>ppm<br>ppm   | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)   | 50<br>350  | <1  | 2   |                          |
| Magnesium Calcium Phosphorus  | ppm<br>ppm<br>ppm   | ASTM D5185(m)<br>ASTM D5185(m)  | 50   | <1<br>5<br>261  | 2<br>6<br>299   |                          |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)   | 50<br>350<br>100   | <1<br>5<br>261<br>7   | 2<br>6<br>299<br>7  |                          |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | 50<br>350<br>100<br>12500  | <1<br>5<br>261<br>7<br>9659<br>2  | 2<br>6<br>299<br>7<br>10019<br>2  |                          |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS   | ppm<br>ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185(m)   | 50<br>350<br>100<br>12500  | <1 5 261 7 9659 2 current   | 2<br>6<br>299<br>7<br>10019<br>2<br>history1  | <br><br><br><br>history2 |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)  | 50<br>350<br>100<br>12500  | <1 5 261 7 9659 2 current   | 2<br>6<br>299<br>7<br>10019<br>2<br>history1  | <br><br><br>history2     |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  | 50<br>350<br>100<br>12500<br>limit/base<br>>25   | <1 5 261 7 9659 2 current 10 2  | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2   | <br><br><br>history2     |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  Method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)   | 50<br>350<br>100<br>12500<br>limit/base<br>>25<br>>20                                    | <1 5 261 7 9659 2 current 10 2 1  | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3  | <br><br>history2         |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  ASTM D5185(m)  | 50<br>350<br>100<br>12500<br>limit/base<br>>25<br>>20<br>limit/base                      | <1 5 261 7 9659 2 current 10 2 1 current  | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3  | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                                      | ASTM D5185(m) Wisual*   | 50<br>350<br>100<br>12500<br>limit/base<br>>25<br>>20<br>limit/base<br>NONE              | <1 5 261 7 9659 2 current 10 2 1 current NONE                                   | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE  | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                               | ASTM D5185(m)  Method ASTM D5185(m) ASTM D5185(m)  ASTM D5185(m)  Wethod Visual*  | 50<br>350<br>100<br>12500<br>limit/base<br>>25<br>>20<br>limit/base<br>NONE              | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE                              | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE  | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar           | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m) ASTM D5185(m)  MSTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  Visual*  Visual*   | 50<br>350<br>100<br>12500<br>limit/base<br>>25<br>>20<br>limit/base<br>NONE<br>NONE      | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE                              | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE  | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  METHOD  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  Visual*  Visual*  Visual*  Visual*   | 50 350 100 12500  limit/base >25 >20  limit/base NONE NONE NONE NONE                     | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE                    | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE<br>NONE  | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  ASTM D5185(m)  ASTM D5185(m)  METHOD  ASTM D5185(m)  ASTM D5185(m)  Visual*  Visual*  Visual*  Visual*  Visual*  | 50 350 100 12500  limit/base >25 >20  limit/base NONE NONE NONE NONE NONE NONE           | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE     | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE<br>NONE<br>NONE                                | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt                                | ppm   | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  We hod  Visual*  Visual*  Visual*  Visual*  Visual*  Visual*   | 50 350 100 12500  limit/base >25 >20  limit/base NONE NONE NONE NONE NONE NONE NONE      | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE NON | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                        | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance                       | ppm   | ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)  METHOD  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  Wisual* Visual*  | 50 350 100 12500  limit/base >25  >20  limit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE NON | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE        | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor                | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                        | ASTM D5185(m)  MEthod  Visual*  | 50 350 100 12500  limit/base >25  >20  limit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE NON | 2<br>6<br>299<br>7<br>10019<br>2<br>history1<br>13<br>2<br>3<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water | ppm   | ASTM D5185(m)  METHOD  ASTM D5185(m)  METHOD  Visual* | 50 350 100 12500  limit/base >25  >20  limit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE NON | 2 6 299 7 10019 2 history1 13 2 3 history1 NONE NONE NONE NONE NONE NONE NONE NON   | history2 history2        |
| Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor                | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                        | ASTM D5185(m)  MEthod  Visual*  | 50 350 100 12500  limit/base >25  >20  limit/base NONE NONE NONE NONE NONE NONE NONE NON | <1 5 261 7 9659 2 current 10 2 1 current NONE NONE NONE NONE NONE NONE NONE NON | 2 6 299 7 10019 2 history1 13 2 3 history1 NONE NONE NONE NONE NONE NONE NONE NON   | history2 history2        |



## **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOB 1

: WC0848160 : 02592249 : 5669328

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received Diagnosed

: 27 Oct 2023 Diagnostician : Kevin Marson

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX

Kirkland Lake, ON **CA P2N 3J1** 

Contact: Tony Tees tony.tees@agnicoeagle.com

To discuss this sample report, contact Customer Service at 1-800-268-2131. T: (705)567-5208 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. F: (705)567-5221

: 26 Oct 2023