

# **OIL ANALYSIS REPORT**

# Area **Power Generation** V837270 STANDBY POWER GENERATION 4160B PACKAGE

**Diesel Engine** 

Fluid MOBIL DELVAC MX EXTRA 0W40 (--- GAL)

### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

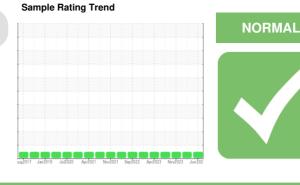
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

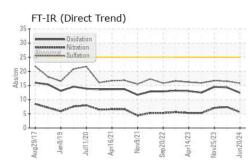
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

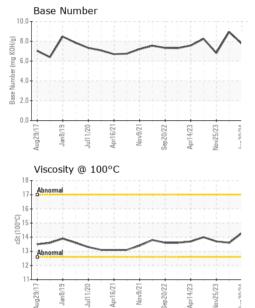


| Sample Date         Client Info         20 Jun 2024         08 Jun 2024         25 Nov 2023           Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Sample Status         Client Info         N/A         N/A         N/A           CONTAMINATION         method         imit/base         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM 05185(m)         >100         2         4         3           Chromium         ppm         ASTM 05185(m)         >20         0         0         0         1           Silver         ppm         ASTM 05185(m)         >20         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2   | SAMPLE INFORM | IATION        | method        | limit/base    | current     | history1    | history2    |            |
|---|---------------|---------------|---------------|---------------|-------------|-------------|-------------|------------|
| Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           CONTAMINATION         method         Imit/base         current         history1         history2           Fuel         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         >0.2         NEG         NEG         NEG           VEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM D585(m)         >100         2         4         3           Mickel         ppm         ASTM D585(m)         >20         0         0         0           Nickel         ppm         ASTM D585(m)         >3< <td>&lt;1</td> 0         0         0           Aluminum         ppm         ASTM D585(m)         S0         0         0         0         0           Autoninum<   | <1            | Sample Number |               | Client Info   |             | PP14005838  | PP14001678  | PP13932690 |
| Oil AgehrsClient Info000Oil ChangedClient InfoN/AN/AN/AN/ASample StatusImit ControlNORMALNORMALNORMALCONTAMINATIONmethodimit/basecurrenthistory2FuelWC Method>5<1.0<1.0WaterWC MethodS0.2NEGNEGNEGGlycolWC Method>0243VEAR METALSmethodimit/basecurrenthistory1history2IronppmASTM D5185(m)>100243ChromiumppmASTM D5185(m)>20000NickelppmASTM D5185(m)>3<10<1AluminumppmASTM D5185(m)>30143TinppmASTM D5185(m)>30143TinppmASTM D5185(m)>15000CopperppmASTM D5185(m)0000AntimonyppmASTM D5185(m)0000AntimonyppmASTM D5185(m)0000Astm D5185(m)S00000Astm D5185(m)S00000Astm D5185(m)S00000Astm D5185(m)SSSSSSAstm D5185(m)S <t< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>20 Jun 2024</th><th>08 Jun 2024</th><th>25 Nov 2023</th></t<>   | Sample Date   |               | Client Info   |               | 20 Jun 2024 | 08 Jun 2024 | 25 Nov 2023 |            |
| Oil Changed<br>Sample Status         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         imil/base         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           Wear         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         imil/base         current         history1         history2           Iron         ppm         ASTM 05185(m)         >100         2         4         3           Chromium         ppm         ASTM 05185(m)         >20         0         0         0           Silver         ppm         ASTM 05185(m)         >20         2         2         2           Lead         ppm         ASTM 05185(m)         >20         2         2         2           Lead         ppm         ASTM 05185(m)         >20         0         0         0           Copper         ppm         ASTM 05185(m)         >1         4         3         1 <td< th=""><th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th>0</th><th>0</th></td<>         | Machine Age   | hrs           | Client Info   |               | 0           | 0           | 0           |            |
| Sample Status         NORMAL         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0   | Oil Age       | hrs           | Client Info   |               | 0           | 0           | 0           |            |
| CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method<>5         <1,0         <1.0         <1.0           Water         WC Method         >0         NEG         NEG         NEG           Glycol         WC Method         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >3         <1         0         <11           Aluminum         ppm         ASTM D5185(m)         >3         <1         0         <11           Aluminum         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >40         0         0         0           Capper         ppm         ASTM D5185(m)         >10         0         0         0           Aritimony         ppm         ASTM D5185(m)         0         0         0         0           Aritimony         pp   | Oil Changed   |               | Client Info   |               | N/A         | N/A         | N/A         |            |
| Fuel         WC Method         >5         <1.0  | Sample Status |               |               |               | NORMAL      | NORMAL      | NORMAL      |            |
| Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         MEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >20         0         0         0           Silver         ppm         ASTM D5185(m)         >3         <1         0         <1           Aluminum         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >10         0         0         0           Antimony         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           Bari   | CONTAMINATION | J             | method        | limit/base    | current     | history1    | history2    |            |
| Glycol         WC Method         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >100         2         4         3           Chromium         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >20         2         4         3           Silver         ppm         ASTM D5185(m)         >3         1         0         0         0           Auminum         ppm         ASTM D5185(m)         >30         1         4         3         1           Copper         ppm         ASTM D5185(m)         >40         0         0         0           Vanadium         ppm         ASTM D5185(m)         0         0         0   | Fuel          |               | WC Method     | >5            | <1.0        | <1.0        | <1.0        |            |
| WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >100         2         4         3           Chromium         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >4         <1         <1         <1           Titanium         ppm         ASTM D5185(m)         >3         <1         0         <1           Aluminum         ppm         ASTM D5185(m)         >3         <1         0         <1           Aluminum         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >20         0         0         0           Copper         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0   | Water         |               | WC Method     | >0.2          | NEG         | NEG         | NEG         |            |
| Iron         ppm         ASTM D5185(m)         >100         2         4         3           Chromium         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >4         <1   | Glycol        |               | WC Method     |               | NEG         | NEG         | NEG         |            |
| Chromium         ppm         ASTM D5185(m)         >20         0         0         0           Nickel         ppm         ASTM D5185(m)         >4         <1         <1         <1           Titanium         ppm         ASTM D5185(m)         >3         <1         0         0           Silver         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >330         1         4         3           Tin         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history1         history2           Barium         ppm         ASTM D5185(m)         0  | WEAR METALS   |               | method        | limit/base    | current     | history1    | history2    |            |
| Nickel         ppm         ASTM D5185(m)         >4         <1  | Iron          | ppm           | ASTM D5185(m) | >100          | 2           | 4           | 3           |            |
| Titanium         ppm         ASTM D5188(m)         0         0         0           Silver         ppm         ASTM D5188(m)         >3         <1         0         <1           Aluminum         ppm         ASTM D5188(m)         >20         2         2         2           Lead         ppm         ASTM D5188(m)         >40         0         0         <1           Copper         ppm         ASTM D5188(m)         >330         1         4         3           Tin         ppm         ASTM D5188(m)         >15         0         0         0           Antimony         ppm         ASTM D5188(m)         0         0         0         0           Vanadium         ppm         ASTM D5188(m)         0         0         0         0           Cadmium         ppm         ASTM D5188(m)         0         0         0         0           Boron         ppm         ASTM D5188(m)         0         0         0         0           Molybdenum         ppm         ASTM D5188(m)         0         0         0         0           Molybdenum         ppm         ASTM D5188(m)         0         0         0         0 <th>Chromium</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th>&gt;20</th> <th>0</th> <th>0</th> <th>0</th>                              | Chromium      | ppm           | ASTM D5185(m) | >20           | 0           | 0           | 0           |            |
| Silver         ppm         ASTM D5185(m)         >3         <1  | Nickel        | ppm           | ASTM D5185(m) | >4            | <1          | <1          | <1          |            |
| Aluminum         ppm         ASTM D5185(m)         >20         2         2         2           Lead         ppm         ASTM D5185(m)         >40         0         0         <1           Copper         ppm         ASTM D5185(m)         >330         1         4         3           Tin         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Vanadium         ppm         ASTM D5185(m)         0         0         0         0           Beryllium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         3         2         2           Molybdenum         ppm         ASTM D5185(m)         0         0         0           Marganese         ppm         ASTM D5185(m)         0         0         0           Marganesium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphoru  | Titanium      | ppm           | ASTM D5185(m) |               | 0           | 0           | 0           |            |
| Lead         ppm         ASTM D5185(m)         >40         0         0         <1   | Silver        | ppm           | ASTM D5185(m) | >3            | <1          | 0           | <1          |            |
| Copper         ppm         ASTM D5185(m)         >330         1         4         3           Tin         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Vanadium         ppm         ASTM D5185(m)         0         0         0         0           Beryllium         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         0         <1           Molybdenum         ppm         ASTM D5185(m)         0         0         0           Manganese         ppm         ASTM D5185(m)         0         0         0         0           Kadaum         ppm         ASTM D5185(m)         2063         2110         2155         2155           Phosphorus         ppm         ASTM D5185(m)         30222         2994         3018   | Aluminum      | ppm           | ASTM D5185(m) | >20           | 2           | 2           | 2           |            |
| Tin         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Vanadium         ppm         ASTM D5185(m)         0         0         0         0           Beryllium         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         3         2         2         2           Barium         ppm         ASTM D5185(m)         0         0         0         1           Molybdenum         ppm         ASTM D5185(m)         0         0         0         0           Maganesium         ppm         ASTM D5185(m)         9         8         8         2         2         2           Phosphorus         ppm         ASTM D5185(m)         20633         2110         2155         2         2         2         2         2         2   | Lead          | ppm           | ASTM D5185(m) | >40           | 0           | 0           | <1          |            |
| Tin         ppm         ASTM D5185(m)         >15         0         0         0           Antimony         ppm         ASTM D5185(m)         0         0         0         0           Vanadium         ppm         ASTM D5185(m)         0         0         0         0           Beryllium         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         3         2         2           Barium         ppm         ASTM D5185(m)         0         0         0           Molybdenum         ppm         ASTM D5185(m)         0         0         0           Magnesse         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         3022         2110         2155           Phosphorus         ppm         ASTM D518  | Copper        | ppm           | ASTM D5185(m) | >330          | 1           | 4           | 3           |            |
| VanadiumppmASTM D5185(m)000BerylliumppmASTM D5185(m)000CadmiumppmASTM D5185(m)000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185(m)322BariumppmASTM D5185(m)00<1MolybdenumppmASTM D5185(m)000ManganeseppmASTM D5185(m)000MagnesiumppmASTM D5185(m)988CalciumppmASTM D5185(m)206321102155PhosphorusppmASTM D5185(m)302229943018LithiumppmASTM D5185(m)302229943018LithiumppmASTM D5185(m)>25555SodiumppmASTM D5185(m)>200<10INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D5185(m)>200<10INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D5185(m)>205.67.47.1   | Tin           | ppm           | ASTM D5185(m) | >15           | 0           | 0           | 0           |            |
| Beryllium         ppm         ASTM D5185(m)         0         0         0         0           Cadmium         ppm         ASTM D5185(m)         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         3         2         2         2           Barium         ppm         ASTM D5185(m)         0         0         0         <11  | Antimony      | 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)         3         2         2           Barium         ppm         ASTM D5185(m)         0         0         0         <11  | Vanadium      | 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)         3         2         2           Barium         ppm         ASTM D5185(m)         0         0         0         <11  | Beryllium     |               | ASTM D5185(m) |               | 0           | 0           | 0           |            |
| Boron         ppm         ASTM D5185(m)         3         2         2           Barium         ppm         ASTM D5185(m)         0         0         <1           Molybdenum         ppm         ASTM D5185(m)         0         0         0           Manganese         ppm         ASTM D5185(m)         0         0         0           Magnesium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphorus         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <1         <1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         20         0  | Cadmium       | ppm           | ASTM D5185(m) |               | 0           | 0           | 0           |            |
| Barium         ppm         ASTM D5185(m)         0         0         <1   | ADDITIVES     |               | method        | limit/base    | current     | history1    | history2    |            |
| Molybdenum         ppm         ASTM D5185(m)         0         0         0           Manganese         ppm         ASTM D5185(m)         0         0         0         0           Magnesium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphorus         ppm         ASTM D5185(m)         8655         893         907           Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <<1< <th>&lt;1</th> <1  | <1            | Boron         | ppm           | ASTM D5185(m) |             | 3           | 2           | 2          |
| Manganese         ppm         ASTM D5185(m)         0         0         0           Magnesium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphorus         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <<1         <1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm   | Barium        | ppm           | ASTM D5185(m) |               | 0           | 0           | <1          |            |
| Magnesium         ppm         ASTM D5185(m)         9         8         8           Calcium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphorus         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         -<1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7844*         >3         0         0         0   | Molybdenum    | ppm           | ASTM D5185(m) |               | 0           | 0           | 0           |            |
| Calcium         ppm         ASTM D5185(m)         2063         2110         2155           Phosphorus         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <<1         <1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | Manganese     | ppm           | ASTM D5185(m) |               | 0           | 0           | 0           |            |
| Phosphorus         ppm         ASTM D5185(m)         865         893         907           Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <1         <1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1 <th>Magnesium</th> <th>ppm</th> <th>ASTM D5185(m)</th> <th></th> <th>9</th> <th>8</th> <th>8</th> | Magnesium     | ppm           | ASTM D5185(m) |               | 9           | 8           | 8           |            |
| Zinc         ppm         ASTM D5185(m)         1046         1058         1091           Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)         <1         <1         <1           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1   | Calcium       | ppm           | ASTM D5185(m) |               | 2063        | 2110        | 2155        |            |
| Sulfur         ppm         ASTM D5185(m)         3022         2994         3018           Lithium         ppm         ASTM D5185(m)             3022         2994         3018           Lithium         ppm         ASTM D5185(m)          <1  | Phosphorus    | ppm           | ASTM D5185(m) |               | 865         | 893         | 907         |            |
| Lithium         ppm         ASTM D5185(m)         <1  | Zinc          |               | ASTM D5185(m) |               | 1046        | 1058        | 1091        |            |
| LithiumppmASTM D5185(m)<1   | Sulfur        | ppm           | ASTM D5185(m) |               | 3022        | 2994        | 3018        |            |
| Silicon         ppm         ASTM D5185(m)         >25         5         5         5           Sodium         ppm         ASTM D5185(m)         22         2         2         2           Potassium         ppm         ASTM D5185(m)         >20         0         <1  | Lithium       |               | ASTM D5185(m) |               | <1          | <1          | <1          |            |
| Sodium         ppm         ASTM D5185(m)         2         2         2         2           Potassium         ppm         ASTM D5185(m)         >20         0         <1         0           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | CONTAMINANTS  |               | method        | limit/base    | current     | history1    | history2    |            |
| Potassium         ppm         ASTM D5185(m)         >20         0         <1  | Silicon       | ppm           | ASTM D5185(m) | >25           | 5           | 5           | 5           |            |
| INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | Sodium        | ppm           | ASTM D5185(m) |               | 2           | 2           | 2           |            |
| Soot %         %         ASTM D7844*         >3         0         0         0           Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | Potassium     | ppm           | ASTM D5185(m) | >20           | 0           | <1          | 0           |            |
| Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | INFRA-RED     |               | method        | limit/base    | current     | history1    | history2    |            |
| Nitration         Abs/cm         ASTM D7624*         >20         5.6         7.4         7.1  | Soot %        | %             | ASTM D7844*   | >3            | 0           | 0           | 0           |            |
|   | Nitration     | Abs/cm        |               | >20           | 5.6         | 7.4         | 7.1         |            |
|   |               | Abs/1mm       |               | >30           |             | 16.5        | 16.7        |            |

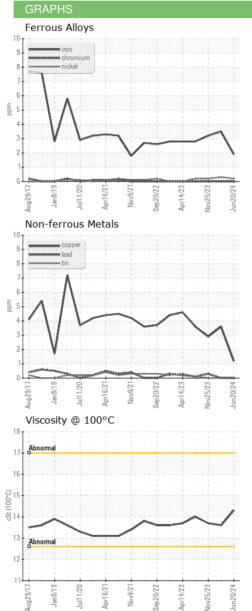


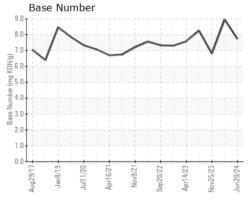
# **OIL ANALYSIS REPORT**





| FLUID DEGRAD                  | ATION                | method                     | limit/base         | current      | history1     | history2     |
|-------------------------------|----------------------|----------------------------|--------------------|--------------|--------------|--------------|
| Oxidation<br>Base Number (BN) | Abs/.1mm<br>mg KOH/g | ASTM D7414*<br>ASTM D2896* | >25                | 12.4<br>7.74 | 14.3<br>8.95 | 14.5<br>6.81 |
| VISUAL                        |                      | method                     | limit/base         | current      | history1     | history2     |
| Emulsified Water              | scalar               | Visual*                    | 0.0                |              |              |              |
| Free Water                    | scalar               | Visual*                    | >0.2               | NEG<br>NEG   | NEG<br>NEG   | NEG<br>NEG   |
|                               | scalar               | rioud.                     | >0.2<br>limit/base |              |              |              |





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : PP14005838 Received : 15 Jul 2024 Lab Number : 02647722 Tested : 15 Jul 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5813274 Diagnosed : 15 Jul 2024 - Wes Davis Test Package : MAR 2 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.

ExxonMobil Canada East Ltd.

Hebron-Materials and Repair Coordin, Suite 1000, 100 New Gow St. John`s, NL s CA A1C 6K3 Contact: Liam Maher liam.m.maher@exxonmobil.com T: (709)273-3729 F:

**I** est denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external Validity of results and interpretation are based on the sample and information as supplied.

Report Id: EXXSTJ [WCAMIS] 02647722 (Generated: 07/15/2024 16:30:14) Rev: 1

Contact/Location: Liam Maher - EXXSTJ Page 2 of 2