

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id Component **Hydraulic System** MOBIL DTE 10 EXCEL 32 (43 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

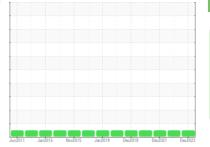
All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| Sample Number | | Client Info | | MHI026476 | MHI018649 | MHI017435 |
| Sample Date | | Client Info | | 13 Dec 2023 | 13 Dec 2022 | 15 Dec 2021 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 95067 | 89901 | 84094 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 5 | 4 | 3 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | 4 | 4 | 3 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | | | | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | ppm | | limit/base | | | |
| | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 2 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 102 | 109 | 121 |
| Phosphorus | ppm | ASTM D5185m | 475 | 374 | 428 | 497 |
| Zinc | ppm | ASTM D5185m | | 27 | 32 | 26 |
| Sulfur | ppm | ASTM D5185m | 1275 | 1251 | 1784 | 1573 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >+30 | 0 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | 2 | 3 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Water | % | ASTM D6304 | >0.1 | 0.003 | 0.010 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >1000 | 33 | 108.9 | 27.0 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >5000 | 407 | 732 | 331 |
| Particles >6µm | | ASTM D7647 | | 111 | 195 | 65 |
| Particles >14µm | | ASTM D7647 | >160 | 19 | 33 | 11 |
| Particles >21µm | | ASTM D7647 | >40 | 5 | 11 | 6 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 16/14/11 | 17/15/12 | 16/13/11 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.10 | 0.12 | 0.18 |

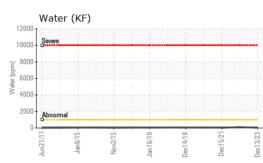
0.10 0.12 Contact/Location: DANIEL BOYD - DIADIL

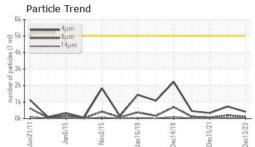
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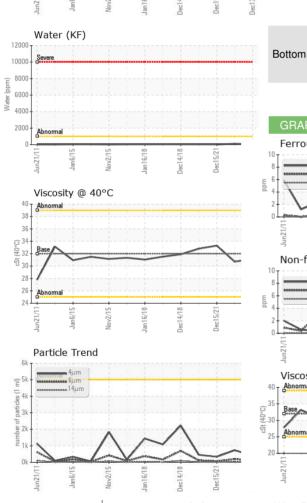
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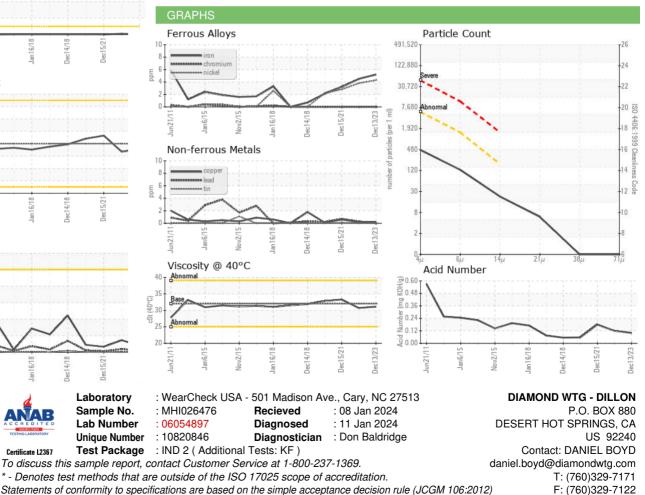






| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | VLITE | 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 | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 32 | 31.11 | 30.7 | 33.3 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
| Color | | | | | | |

Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: DANIEL BOYD - DIADIL