

OIL ANALYSIS REPORT

Area MELT SHOP - HYDRAULIC Machine Id MELT SHOP EAF INLINE HEATER Component

Hydraulic System

FIRE-RESISTANT FLUID ISO 46 (5 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

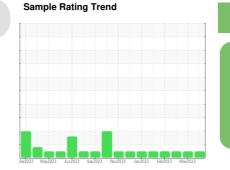
All component wear rates are normal.

Contamination

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

Fluid Condition

The pH level of this fluid is within the acceptable limits at 9.0. The condition of the oil is acceptable for the time in service.



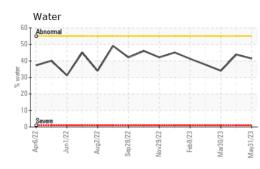


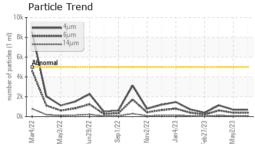
NORMAL

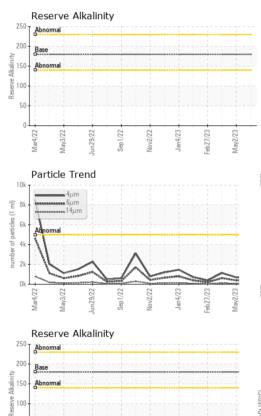
| SAMPLE INFORM | | method | limit/boos | ourroat | bieter 1 | hiotomy |
|------------------------|------------|----------------------------|------------|-------------|-------------|-------------|
| | | | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | RP0035173 | RP0034603 | RP0029659 |
| Sample Date | la va | Client Info | | 31 May 2023 | 02 May 2023 | 30 Mar 2023 |
| Machine Age Oil Age | hrs hrs | Client Info Client Info | | 0 | 0 | 0 |
| Oil Changed | 1115 | Client Info | | N/A | 0 N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| | | | 11 11 11 | - | - | - |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 6 | 0 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 5 | 0 | 4 | <1 |
| Calcium | ppm | ASTM D5185m | 50 | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185m | 175 | 3 | 1 | 63 |
| Zinc | ppm | ASTM D5185m | 62 | 0 | 0 | 8 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 0 | 0 | 2 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Water | % | ASTM D6304 | >55 | 41.4 | 43.8 | 34.0 |
| ppm Water | ppm | ASTM D6304 | >55000 | 414000 | 438000 | 340000 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >5000 | 699 | 693 | 1131 |
| Particles >6µm | | ASTM D7647 | >1300 | 381 | 378 | 616 |
| Particles >14µm | | ASTM D7647 | >160 | 65 | 64 | 105 |
| Particles >21µm | | ASTM D7647 | >40 | 22 | 22 | 35 |
| Particles >38µm | | ASTM D7647 | >10 | 3 | 3 | 5 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 1 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 17/16/13 | 17/16/13 | 17/16/14 |



OIL ANALYSIS REPORT







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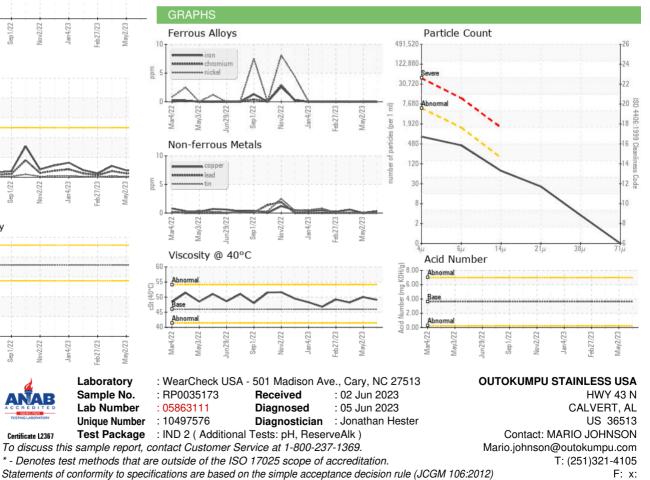
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| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|------------|------------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *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 | >55 | 0.2% | 0.2% | 0.2% |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPER | TIES | method | limit/base | current | history1 | history2 |
| рН | Scale 0-14 | ASTM D1287 | | 9.00 | 9.00 | 9.00 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 49.1 | 50.0 | 48.2 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |

Color



Bottom



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