



OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | SEVERE |
| FLUID CONDITION | NORMAL |

Machine Id
GROVE 7702 (S/N 232574)

Component
Auxiliary Winch

Fluid
GEAR OIL SAE 75W90 (--- QTS)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | DC0025416 | --- | --- |
| Sample Date | | Client Info | | 03 Mar 2023 | --- | --- |
| Machine Age | hrs | Client Info | | 4875 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | SEVERE | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >150 | 108 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >5 | 3 | --- | --- |
| Lead | ppm | ASTM D5185m | >15 | 2 | --- | --- |
| Copper | ppm | ASTM D5185m | >80 | 12 | --- | --- |
| Tin | ppm | ASTM D5185m | | 2 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

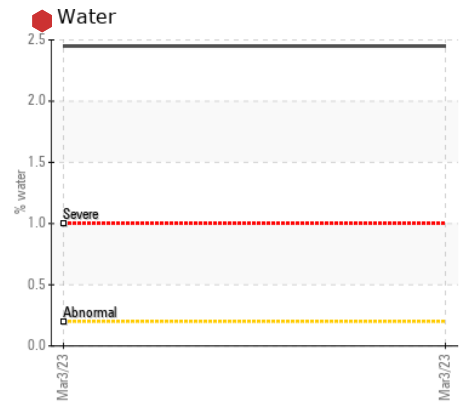
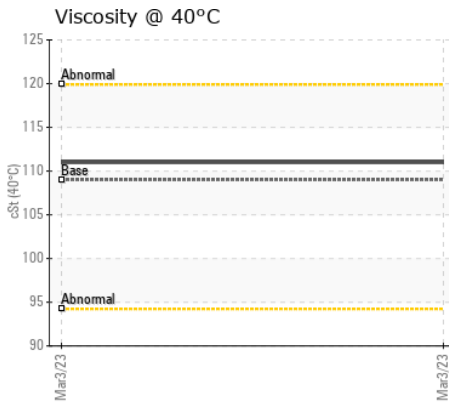
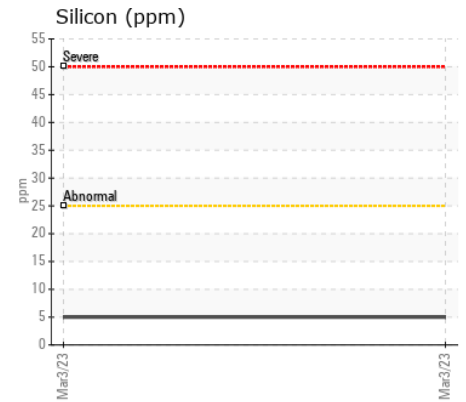
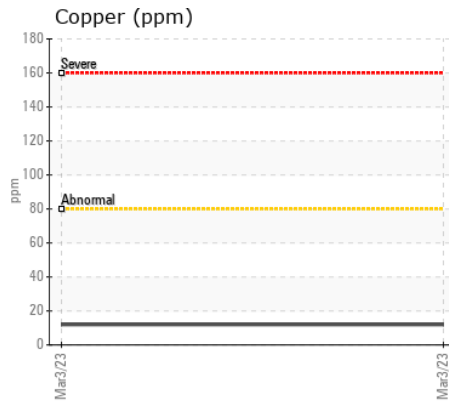
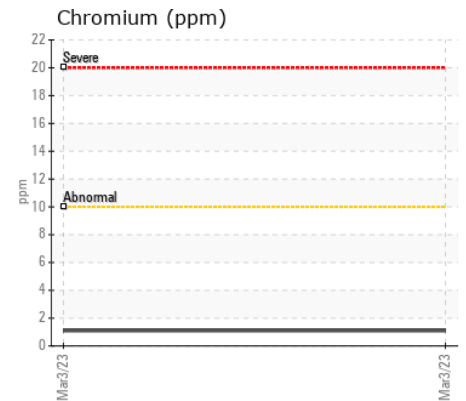
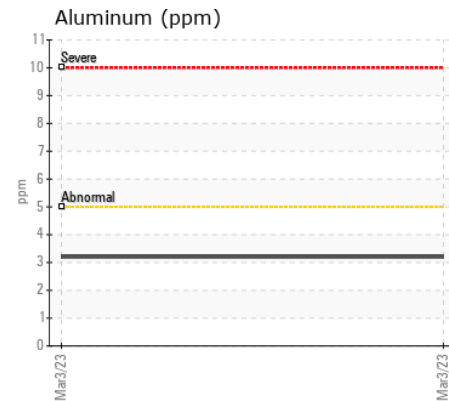
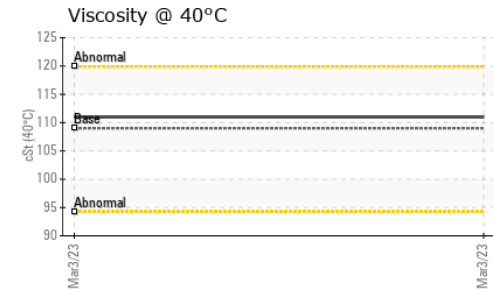
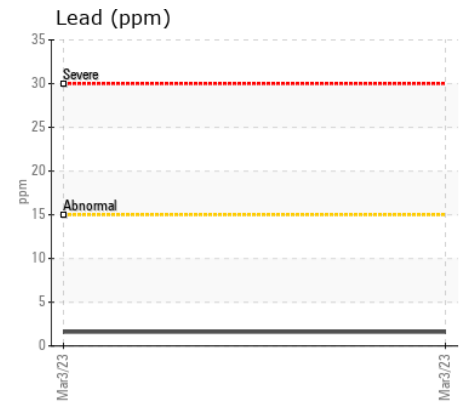
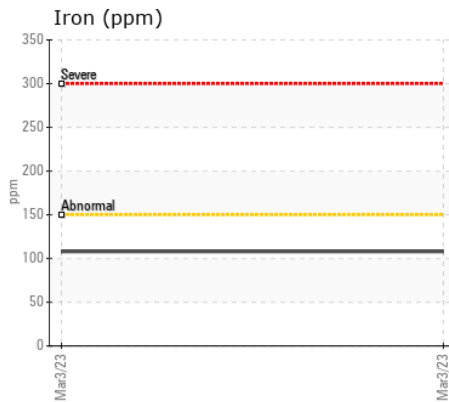
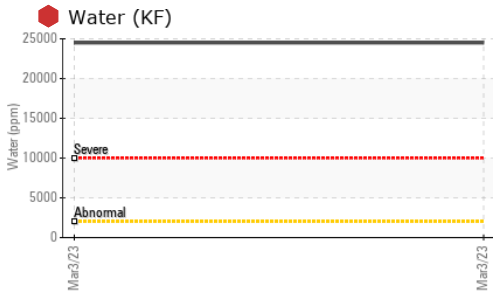
Appearance is milky. Moderate concentration of visible dirt/debris present in the oil. There is a high concentration of water present in the oil. Free water present.

| | | | | | | |
|------------------|--------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >25 | 5 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 25 | --- | --- |
| Water | % | ASTM D6304 | >0.2 | 2.45 | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | 24500 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | MODER | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | MILKY | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | 0.2% | --- | --- |

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

| | | | | | | |
|-------------|-----|-------------|-------|-------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 3 | --- | --- |
| Boron | ppm | ASTM D5185m | 400 | 136 | --- | --- |
| Barium | ppm | ASTM D5185m | 200 | 4 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 12 | <1 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 4 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 12 | 3 | --- | --- |
| Calcium | ppm | ASTM D5185m | 150 | 71 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1650 | 1283 | --- | --- |
| Zinc | ppm | ASTM D5185m | 125 | 199 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 22500 | 25892 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 109 | 111 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0025416 **Received** : 27 Mar 2023
Lab Number : 05802754 **Tested** : 29 Mar 2023
Unique Number : 10400283 **Diagnosed** : 30 Mar 2023 - Don Baldrige
Test Package : MOB 1 (Additional Tests: KF)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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