



OIL ANALYSIS REPORT

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



Machine Id
CATERPILLAR 980M 6141 (S/N KRS00885)
Component
Rear Right Final Drive
Fluid
TULCO LUBSOIL TO-4 50 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | TO10003647 | TO10003021 | TO10003372 |
| Sample Date | | Client Info | | 15 Jun 2024 | 08 Apr 2024 | 04 Mar 2024 |
| Machine Age | hrs | Client Info | | 13913 | 13425 | 13158 |
| Oil Age | hrs | Client Info | | 755 | 267 | 1685 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Changed |
| Filter Changed | | Client Info | | None | N/A | None |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|------|-------|
| PQ | | ASTM D8184 | >500 | 46 | 64 | 403 |
| Iron | ppm | ASTM D5185m | >800 | 58 | 60 | 540 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >75 | 2 | 1 | 8 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 2 |
| Copper | ppm | ASTM D5185m | >75 | 6 | 6 | 51 |
| Tin | ppm | ASTM D5185m | >8 | 0 | <1 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | MODER |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

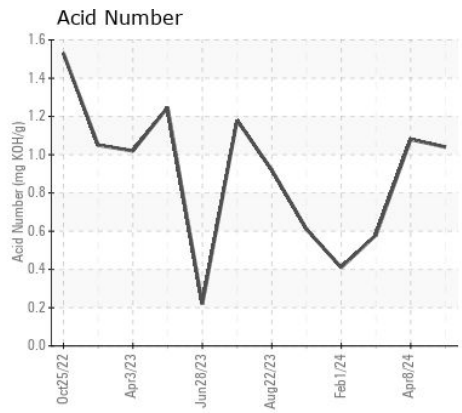
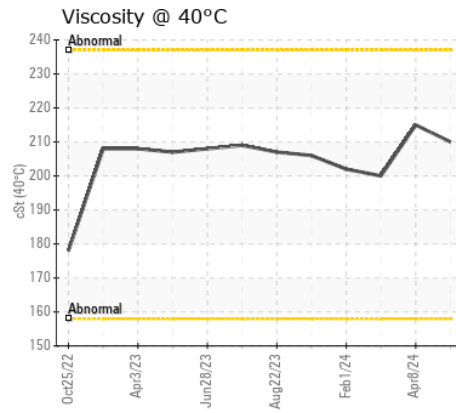
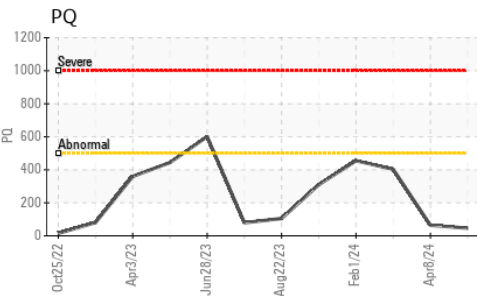
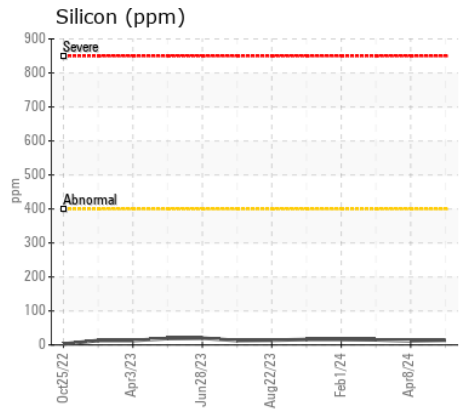
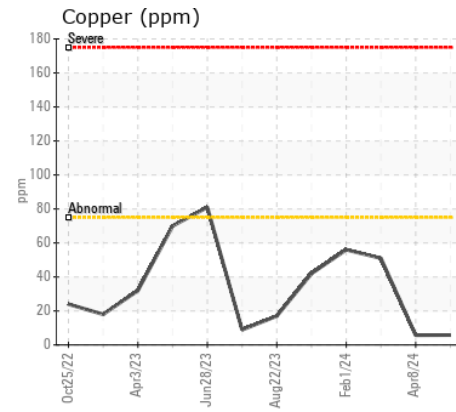
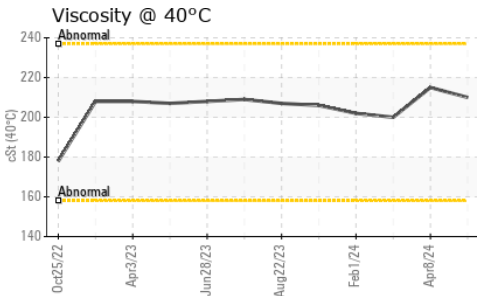
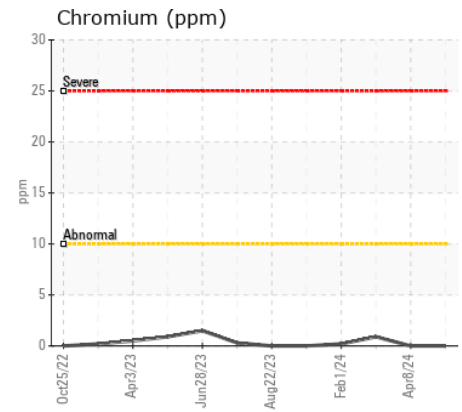
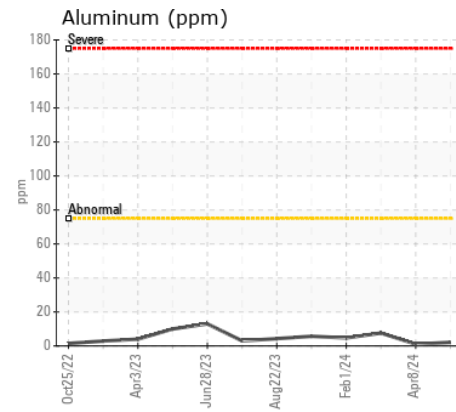
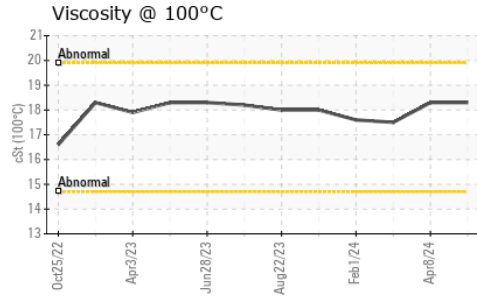
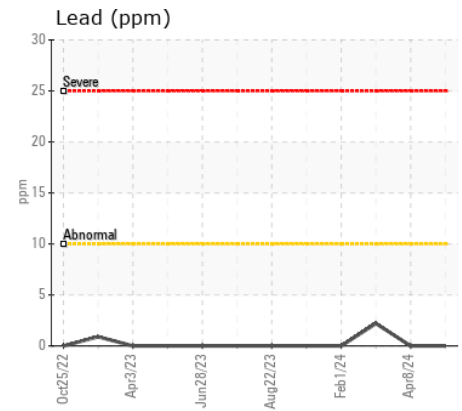
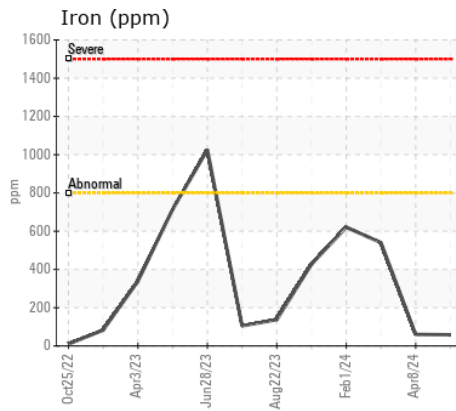
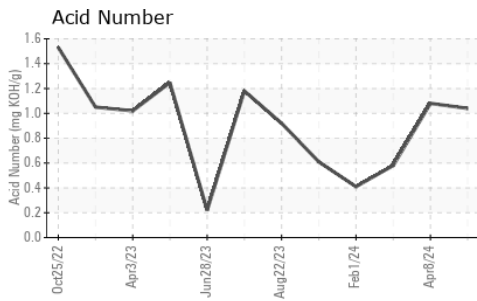
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >400 | 14 | 12 | 15 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 0 | 3 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| 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 | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|----------------------|----------|-------------|--|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | 5 | 5 | 5 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 1 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | 1 | <1 | 6 |
| Magnesium | ppm | ASTM D5185m | | 13 | 9 | 15 |
| Calcium | ppm | ASTM D5185m | | 3388 | 3017 | 2744 |
| Phosphorus | ppm | ASTM D5185m | | 1069 | 897 | 885 |
| Zinc | ppm | ASTM D5185m | | 1276 | 1065 | 988 |
| Sulfur | ppm | ASTM D5185m | | 5915 | 5425 | 4893 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.04 | 1.08 | 0.58 |
| Visc @ 40°C | cSt | ASTM D445 | | 210 | 215 | 200 |
| Visc @ 100°C | cSt | ASTM D445 | | 18.3 | 18.3 | 17.5 |
| Viscosity Index (VI) | Scale | ASTM D2270 | | 95 | 93 | 94 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10003647
Lab Number : 06216327
Unique Number : 11089191
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

ANCHOR STONE TULSA ROCK
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE
 TULSA, OK
 US 74137

Contact: MIKE SNYDER
 msnyder@anchorstoneco.com

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)

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F: