



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

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

Machine Id  
**CATERPILLAR 552 FELLER 16-04 (S/N CAT00552PFG00199)**

Component  
**Diesel Engine**

Fluid  
**TRC PRO-SPEC V SYN BLEND 15W40 (9 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | TR06177398  | ---      | ---      |
| Sample Date    |     | Client Info |           | 16 Apr 2024 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 6369        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 285         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 285         | ---      | ---      |
| Oil Changed    |     | Client Info |           | Changed     | ---      | ---      |
| Filter Changed |     | Client Info |           | Changed     | ---      | ---      |
| Sample Status  |     |             |           | NORMAL      | ---      | ---      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >100 | 11   | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <1   | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >2   | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m | >2   | <1   | --- | --- |
| Silver       | ppm    | ASTM D5185m | >2   | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >25  | 2    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <1   | --- | --- |
| Copper       | ppm    | ASTM D5185m | >330 | 1    | --- | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <1   | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <1   | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

**CONTAMINATION**

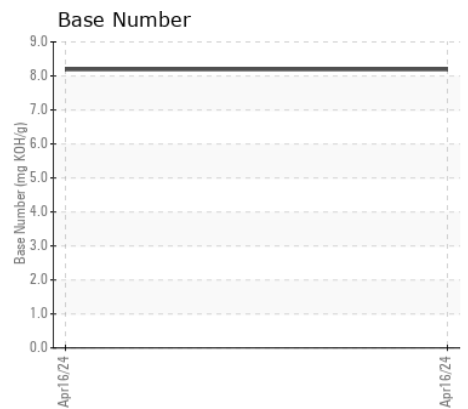
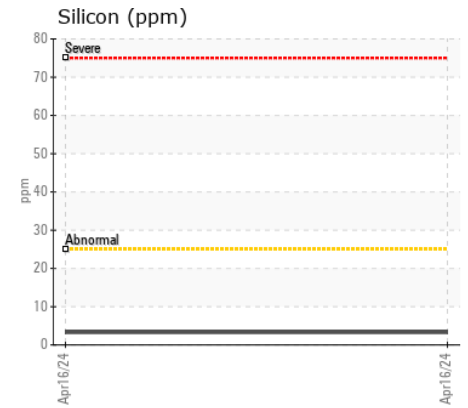
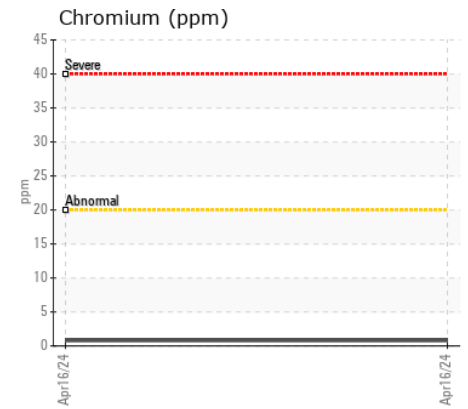
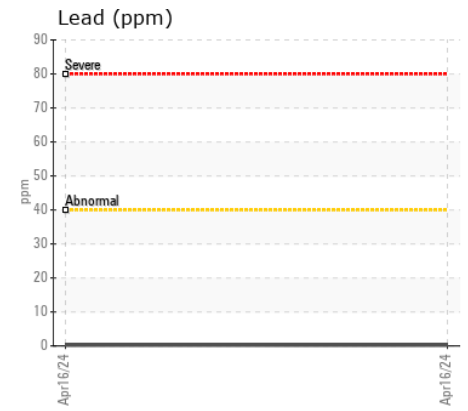
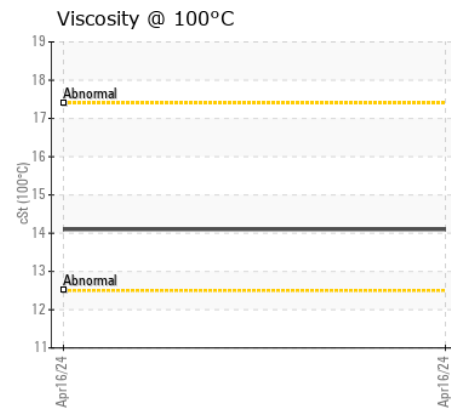
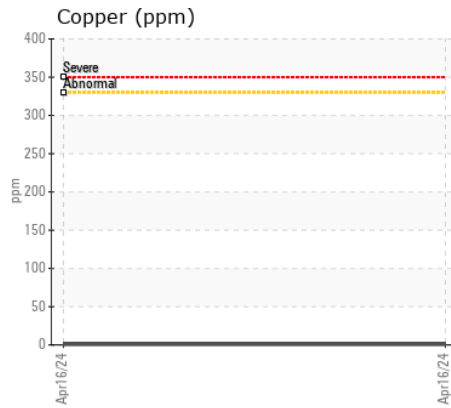
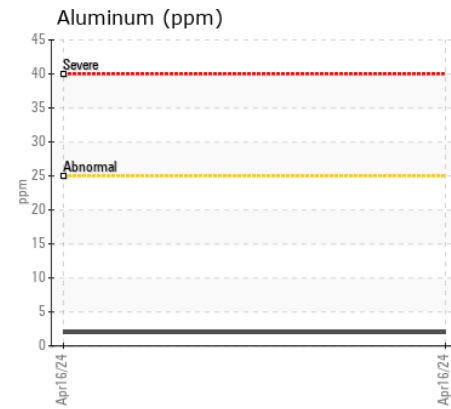
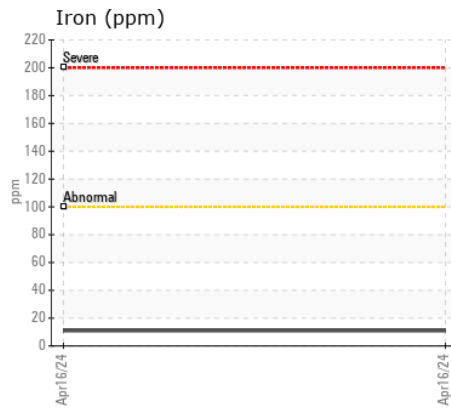
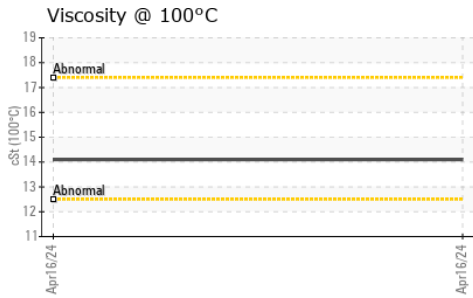
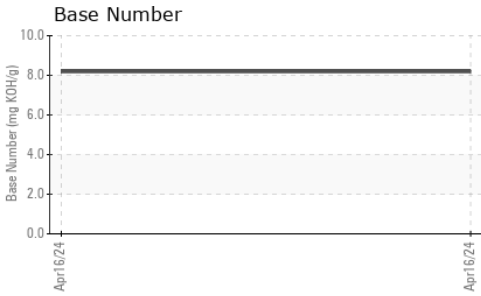
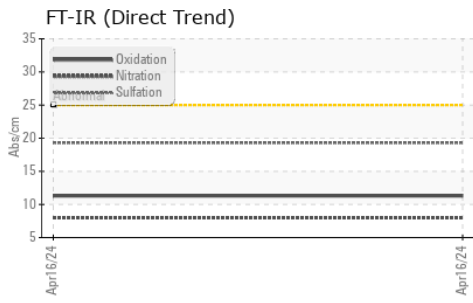
There is no indication of any contamination in the oil.

|                  |          |             |       |       |     |     |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | 3     | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | 3     | --- | --- |
| Fuel             |          | WC Method   | >5    | <1.0  | --- | --- |
| Water            |          | WC Method   | >0.2  | NEG   | --- | --- |
| Glycol           |          | WC Method   |       | NEG   | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | 0.7   | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | 8.0   | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | 19.3  | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | NONE  | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | NONE  | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | NONE  | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | NORML | --- | --- |
| Odor             | scalar   | *Visual     | NORML | NORML | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | NEG   | --- | --- |

**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.

|                  |          |             |     |      |     |     |
|------------------|----------|-------------|-----|------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |     | 0    | --- | --- |
| Boron            | ppm      | ASTM D5185m |     | 0    | --- | --- |
| Barium           | ppm      | ASTM D5185m |     | 1    | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |     | <1   | --- | --- |
| Manganese        | ppm      | ASTM D5185m |     | <1   | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |     | 9    | --- | --- |
| Calcium          | ppm      | ASTM D5185m |     | 2671 | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | 1164 | --- | --- |
| Zinc             | ppm      | ASTM D5185m |     | 1198 | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |     | 4636 | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | 11.3 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | 8.19 | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   |     | 14.1 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : TR06177398  
 Lab Number : 06177398  
 Unique Number : 11023451  
 Test Package : MOB 2

Received : 13 May 2024  
 Tested : 14 May 2024  
 Diagnosed : 15 May 2024 - Don Baldrige

**KASKI LOGGING**  
 22411 HE CEDAR CREEK RD  
 AMBOY, WA  
 US 98601  
 Contact: NATHAN BYRD

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

T:  
F: