



OIL ANALYSIS REPORT

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



Area
Store 2 - Beaver [American Elec]
 Machine Id
CATERPILLAR D5065 E1100167 CPI (S/N CAT00C44KGLD00700)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Customer has no service history. Oil has been changed prev . Does not no when it was changed)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|----------|
| Sample Number | | Client Info | | LEC0048563 | LEC0039499 | --- |
| Sample Date | | Client Info | | 15 Apr 2024 | 24 Feb 2023 | --- |
| Machine Age | hrs | Client Info | | 38 | 35 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | Changed | Not Changd | --- |
| Filter Changed | | Client Info | | Changed | Not Changd | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|------|-----|
| Iron | ppm | ASTM D5185m | >100 | <1 | 6 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | --- |
| Nickel | ppm | ASTM D5185m | >2 | 0 | <1 | --- |
| Titanium | ppm | ASTM D5185m | >2 | 0 | <1 | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 1 | 1 | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 0 | 77 | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

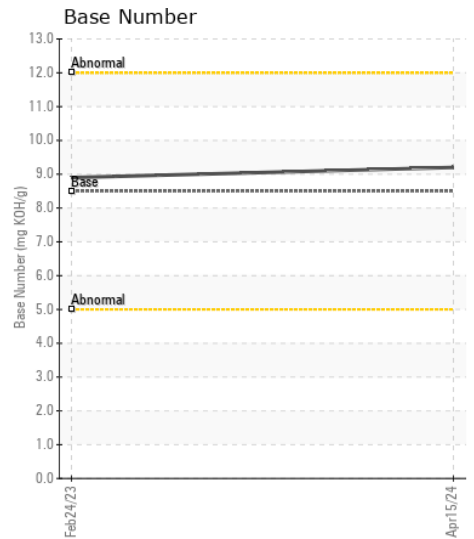
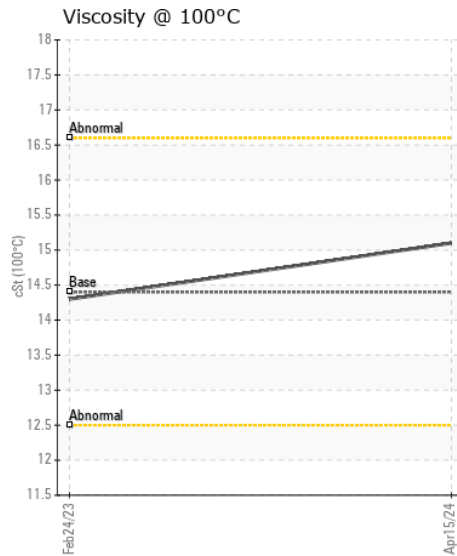
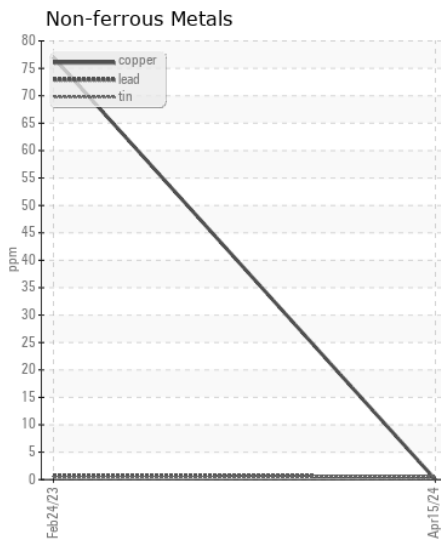
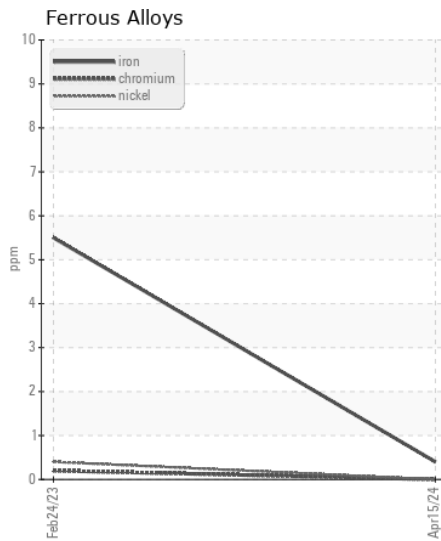
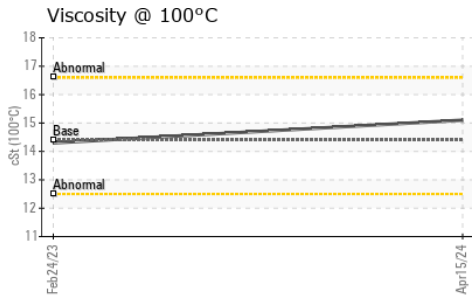
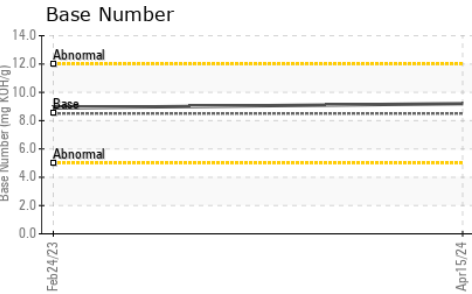
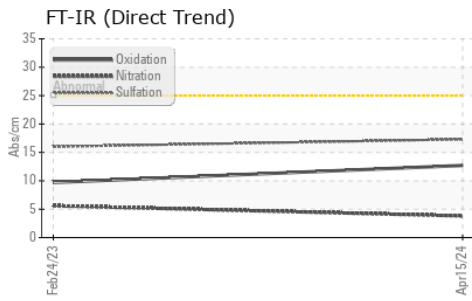
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-------|-----|
| Silicon | ppm | ASTM D5185m | >120 | 4 | 6 | --- |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 19 | --- |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0 | 0.1 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 3.8 | 5.6 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.3 | 16.0 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | --- |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|------|------|------|-----|
| Sodium | ppm | ASTM D5185m | >158 | 0 | 26 | --- |
| Boron | ppm | ASTM D5185m | 250 | 5 | 10 | --- |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 62 | 3 | --- |
| Manganese | ppm | ASTM D5185m | | 0 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 425 | 26 | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1771 | 2520 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1015 | 941 | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1204 | 1115 | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3966 | 4839 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.7 | 9.7 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 9.2 | 8.9 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 15.1 | 14.3 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048563
Lab Number : 06154129
Unique Number : 10989552
Test Package : CONST (Additional Tests: TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

Received : 19 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Sean Felton

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)