



Machine Id  
**CATERPILLAR FM PASC MEN CAT 326**  
 Component  
**Diesel Engine**  
 Fluid  
**CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)**

**RECOMMENDATION**

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current       | History1 | History2 |
|----------------|-----|-------------|-----------|---------------|----------|----------|
| Sample Number  |     | Client Info |           | PCA0113518    | ---      | ---      |
| Sample Date    |     | Client Info |           | 11 Apr 2024   | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 0             | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 0             | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0             | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Changd    | ---      | ---      |
| Filter Changed |     | Client Info |           | N/A           | ---      | ---      |
| Sample Status  |     |             |           | <b>SEVERE</b> | ---      | ---      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >100 | <b>23</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>3</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | --- | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>4</b>     | --- | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

**CONTAMINATION**

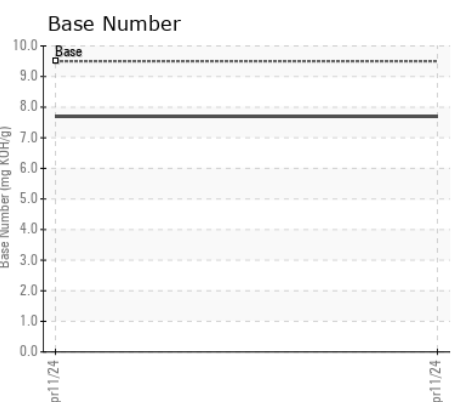
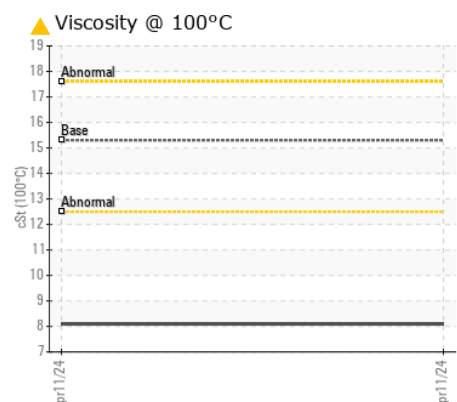
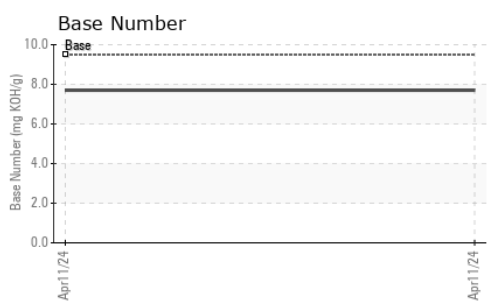
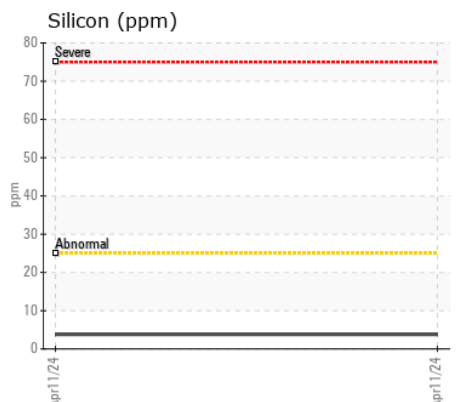
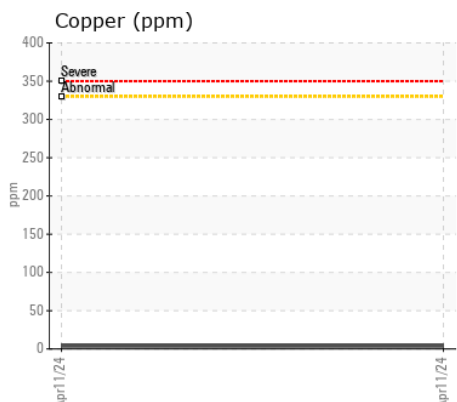
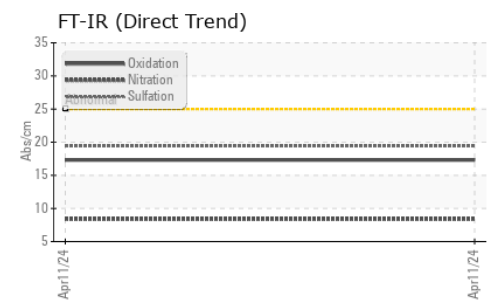
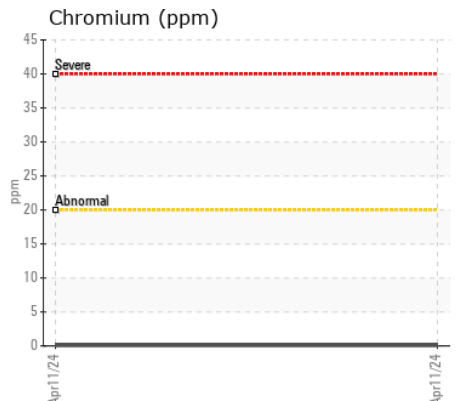
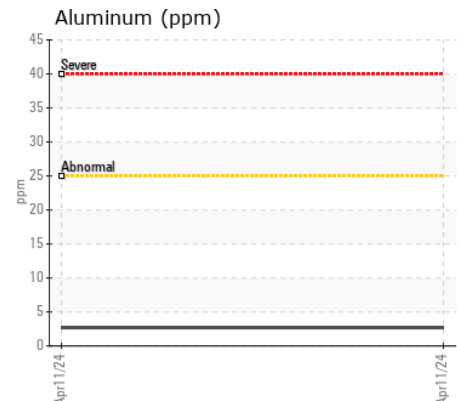
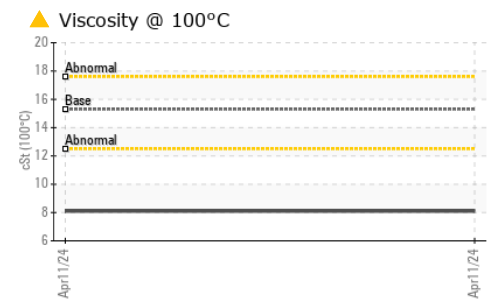
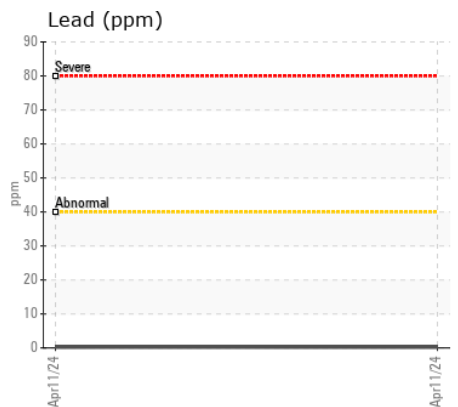
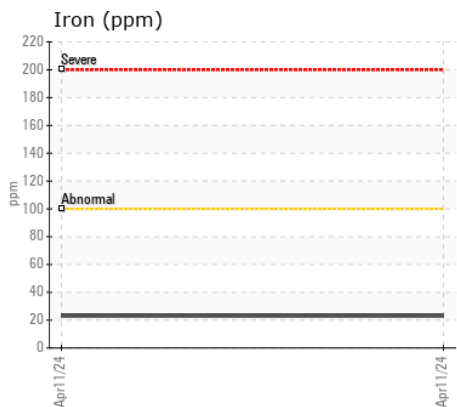
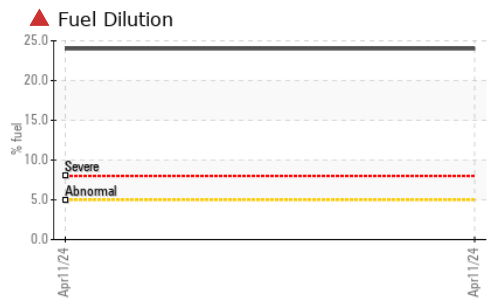
There is a high amount of fuel present in the oil.

|                  |          |             |       |               |     |     |
|------------------|----------|-------------|-------|---------------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>4</b>      | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>      | --- | --- |
| Fuel             | %        | ASTM D3524  | >5    | <b>▲ 24.0</b> | --- | --- |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>    | --- | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>    | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.6</b>    | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.4</b>    | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.4</b>   | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>   | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>   | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>   | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>  | --- | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>  | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>    | --- | --- |

**FLUID CONDITION**

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

|                  |          |             |      |              |     |     |
|------------------|----------|-------------|------|--------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |      | <b>1</b>     | --- | --- |
| Boron            | ppm      | ASTM D5185m | 85   | <b>18</b>    | --- | --- |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>42</b>    | --- | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Magnesium        | ppm      | ASTM D5185m | 350  | <b>678</b>   | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 1800 | <b>939</b>   | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 1000 | <b>844</b>   | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 1100 | <b>970</b>   | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 3500 | <b>2788</b>  | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>17.3</b>  | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.5  | <b>7.7</b>   | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.3 | <b>▲ 8.1</b> | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0113518 **Received** : 16 Apr 2024  
**Lab Number** : 06150095 **Tested** : 19 Apr 2024  
**Unique Number** : 10980173 **Diagnosed** : 19 Apr 2024 - Doug Bogart  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

**LEAHY-WOLF COMPANY**  
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 ADDISON, IL  
 US 60101  
 Contact: TERRY LONG  
 terrylong@leahywolf.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)

T:  
F: