



OIL ANALYSIS REPORT

| | |
|-----------------|-----------------|
| WEAR | NORMAL |
| CONTAMINATION | MARGINAL |
| FLUID CONDITION | ABNORMAL |

Machine Id
FORD 3402
 Component
Diesel Engine
 Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (--- QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

Light fuel dilution occurring.

FLUID CONDITION

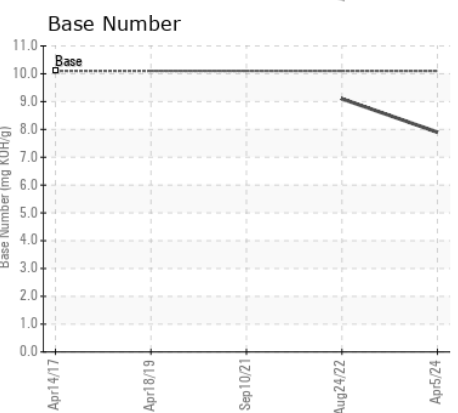
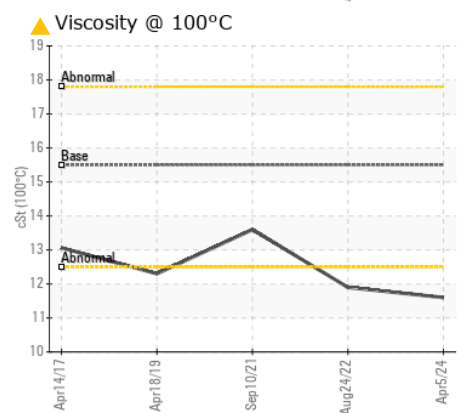
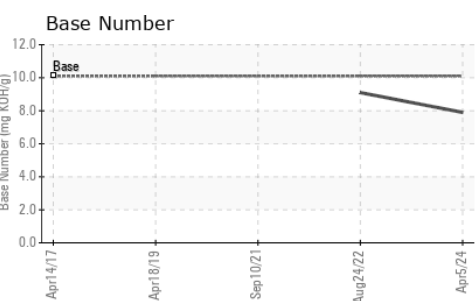
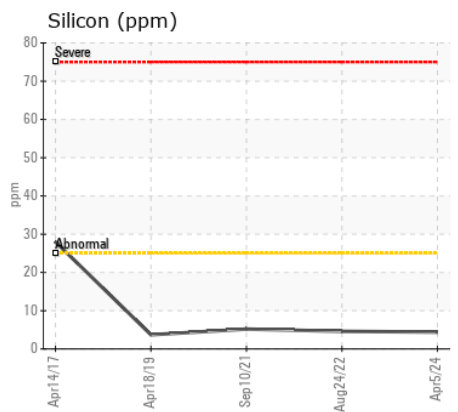
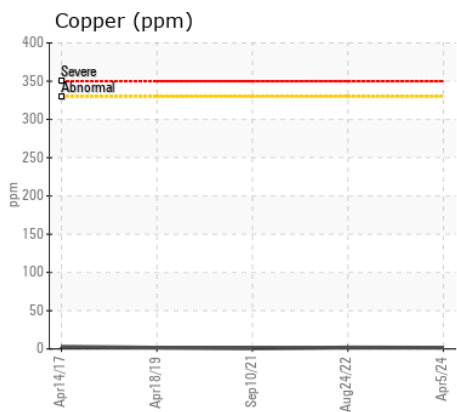
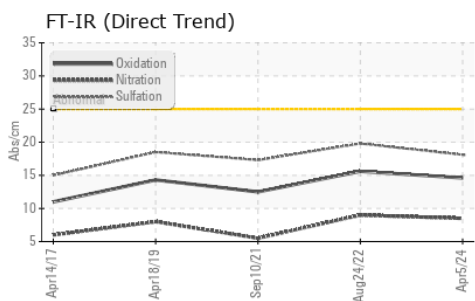
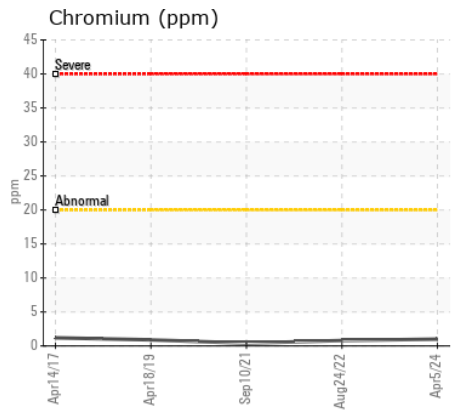
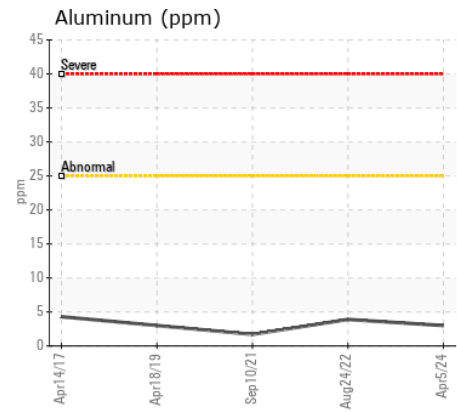
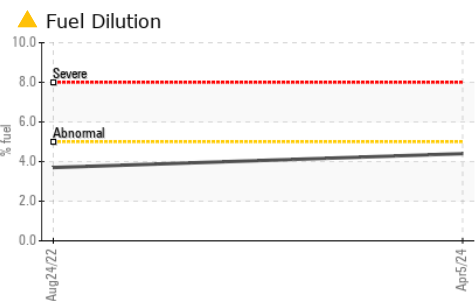
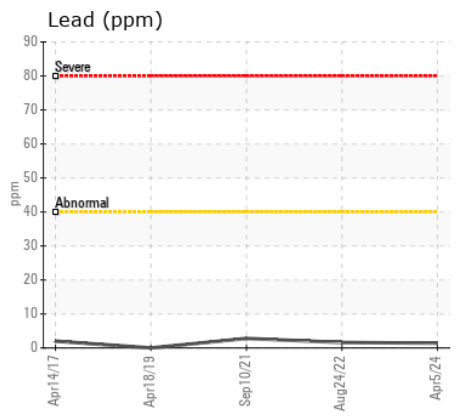
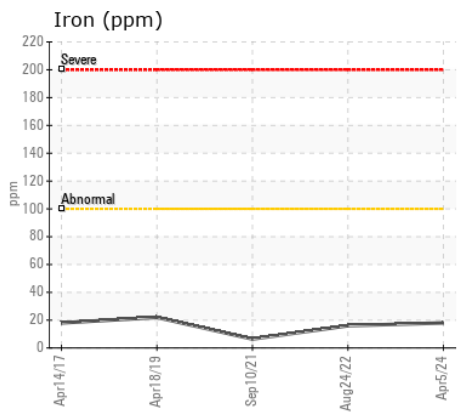
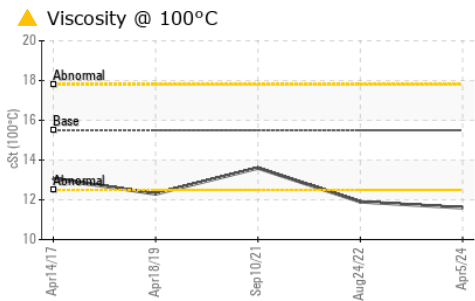
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0650871 | WC0725628 | WC0603321 |
| Sample Date | | Client Info | | 05 Apr 2024 | 24 Aug 2022 | 10 Sep 2021 |
| Machine Age | mls | Client Info | | 150020 | 5000 | 7000 |
| Oil Age | mls | Client Info | | 10000 | 5000 | 7000 |
| Filter Age | mls | Client Info | | 10000 | 5000 | 7000 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | ABNORMAL | ATTENTION | NORMAL |

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 18 | 16 | 6 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 4 | 2 |
| Lead | ppm | ASTM D5185m | >40 | 1 | 2 | 3 |
| Copper | ppm | ASTM D5185m | >330 | 2 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 5 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 16 | 7 | 10 |
| Fuel | % | ASTM D3524 | >5 | ▲ 4.4 | ▲ 3.7 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.2 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.5 | 9.0 | 5.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.1 | 19.8 | 17.3 |
| 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 |

| | | | | | | |
|------------------|----------|-------------|------|---------------|--------|------|
| Sodium | ppm | ASTM D5185m | | 6 | <1 | 2 |
| Boron | ppm | ASTM D5185m | | 8 | 10 | 10 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 66 | 62 | 60 | 58 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1000 | 886 | 886 | 952 |
| Calcium | ppm | ASTM D5185m | 1050 | 1201 | 1188 | 1167 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1042 | 1051 | 1027 |
| Zinc | ppm | ASTM D5185m | 1270 | 1249 | 1216 | 1145 |
| Sulfur | ppm | ASTM D5185m | | 3606 | 3563 | 2427 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.6 | 15.6 | 12.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.1 | 7.9 | 9.1 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.5 | ▲ 11.6 | ● 11.9 | 13.6 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0650871 **Received** : 28 Jun 2024
Lab Number : 06223177 **Tested** : 02 Jul 2024
Unique Number : 11101374 **Diagnosed** : 02 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

INTERSTATE WASTE-GOSHEN
 95 HARTLEY ROAD
 GOSHEN, NY
 US 10924
 Contact: Service Manager

Certificate L2367
 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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