



OIL ANALYSIS REPORT

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

Area
[LITTLE UTILITIES]
 Machine Id
VOLVO EC140 314312

Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | ML0002958 | --- | --- |
| Sample Date | | Client Info | | 20 Jun 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 1321 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >100 | 22 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 2 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 10 | --- | --- |
| Lead | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >15 | 3 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

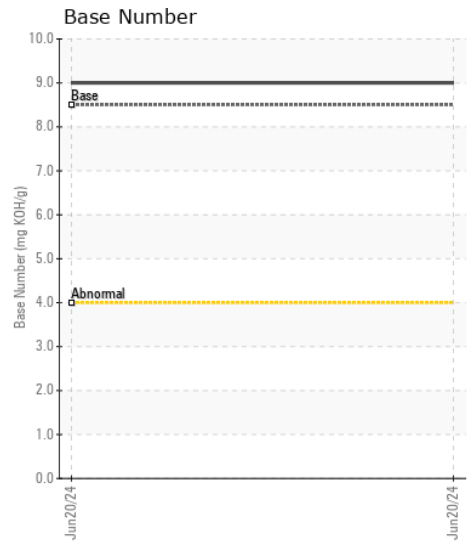
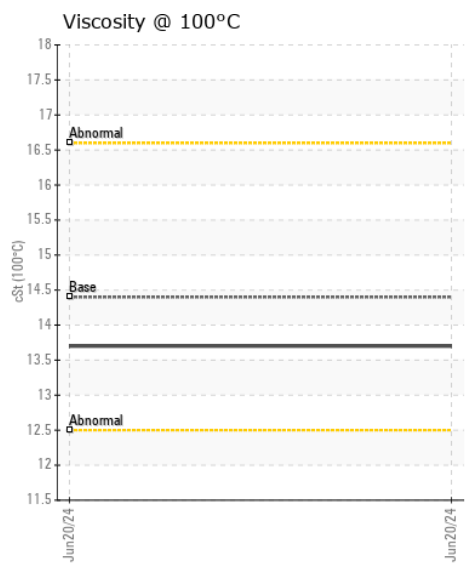
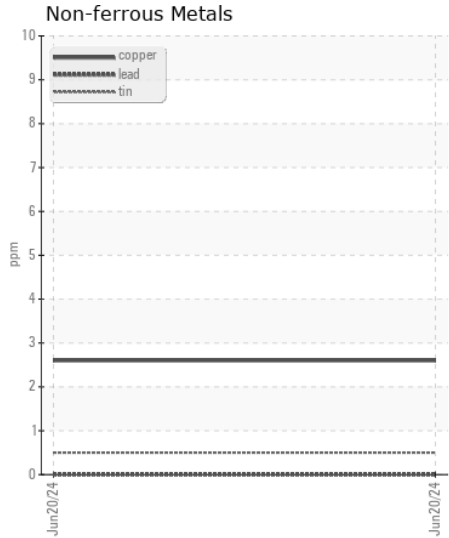
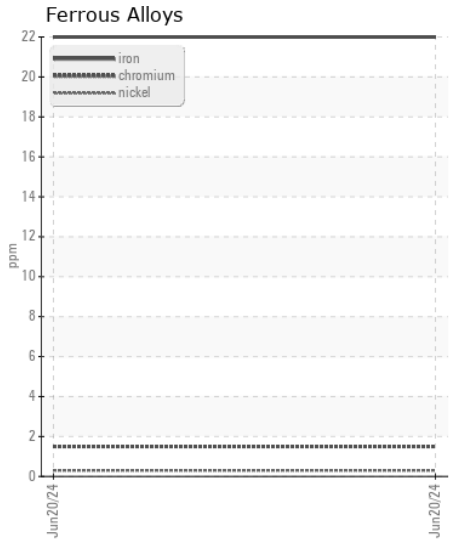
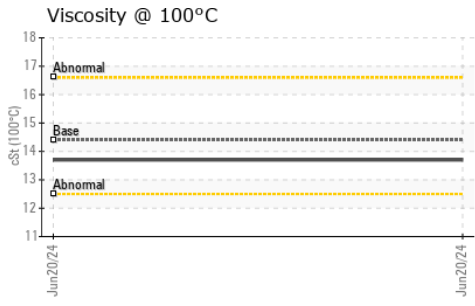
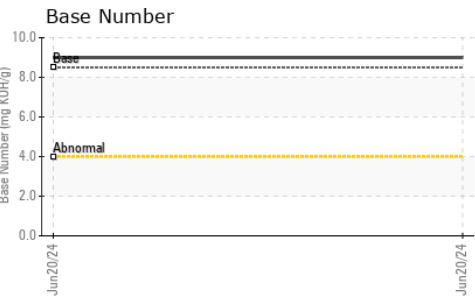
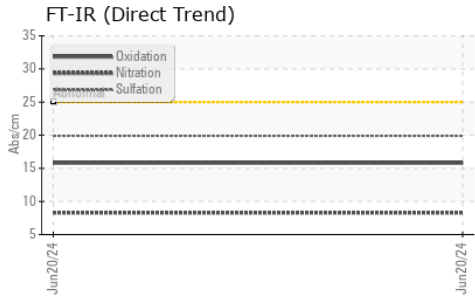
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >20 | 7 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | --- | --- |
| Fuel | | WC Method | >6.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.3 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.9 | --- | --- |
| 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 | >0.1 | 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 | >158 | 3 | --- | --- |
| Boron | ppm | ASTM D5185m | 250 | 57 | --- | --- |
| Barium | ppm | ASTM D5185m | 10 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | 50 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 450 | 532 | --- | --- |
| Calcium | ppm | ASTM D5185m | 3000 | 1582 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1048 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1350 | 1267 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | 3642 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.8 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 9.0 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.7 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0002958
Lab Number : 06220485
Unique Number : 11098682
Test Package : CONST (Additional Tests: TBN)

MCCLUNG-LOGAN EQUIPMENT CO - CHESAPEAKE
 4112 HOLLAND BLVD
 CHESAPEAKE, VA
 US 23323

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: TOMMY GRIFFIN
 tgriffin@mcclung-logan.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (757)485-3314

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (757)485-3415