



VOLVO

OIL ANALYSIS REPORT

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



Area
[SWA536475-10]
 Machine Id
VOLVO L220H 2823
 Component
Transmission (Auto)
 Fluid
VOLVO AT 102 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | VCP430293 | VCP407429 | VCP330988 |
| Sample Date | | Client Info | | 10 Jun 2024 | 09 Sep 2023 | 16 Sep 2022 |
| Machine Age | hrs | Client Info | | 10963 | 9460 | 7531 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |

WEAR

The iron level is abnormal. All other component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >140 | ▲ 187 | 103 | 48 |
| Chromium | ppm | ASTM D5185m | >2 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 3 | 4 | 3 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >100 | 33 | 17 | 6 |
| Tin | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

There is no indication of any contamination in the fluid.

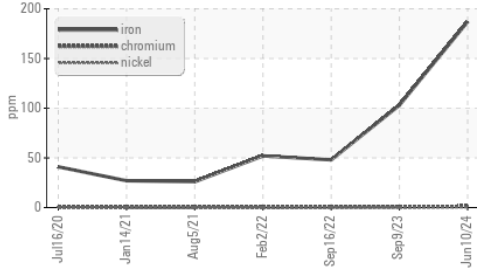
| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 1 | 4 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <1 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

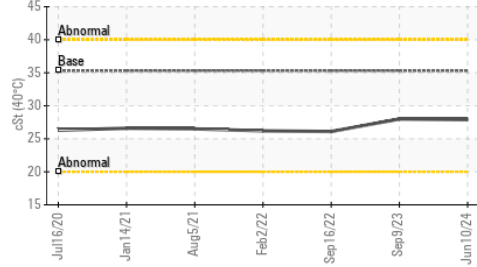
The condition of the fluid is acceptable for the time in service.

| | | | | | | |
|-------------|-----|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | <1 | 3 | 3 |
| Boron | ppm | ASTM D5185m | 187 | 64 | 64 | 64 |
| Barium | ppm | ASTM D5185m | 0.0 | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | 2 | 1 | <1 |
| Manganese | ppm | ASTM D5185m | 0.0 | 3 | 2 | 1 |
| Magnesium | ppm | ASTM D5185m | 6.8 | 23 | 11 | <1 |
| Calcium | ppm | ASTM D5185m | 215 | 395 | 409 | 78 |
| Phosphorus | ppm | ASTM D5185m | 445 | 260 | 276 | 164 |
| Zinc | ppm | ASTM D5185m | 56 | 174 | 135 | 0 |
| Sulfur | ppm | ASTM D5185m | 1336 | 2222 | 2586 | 1881 |
| Visc @ 40°C | cSt | ASTM D445 | 35.3 | 27.9 | 28.0 | 26.1 |

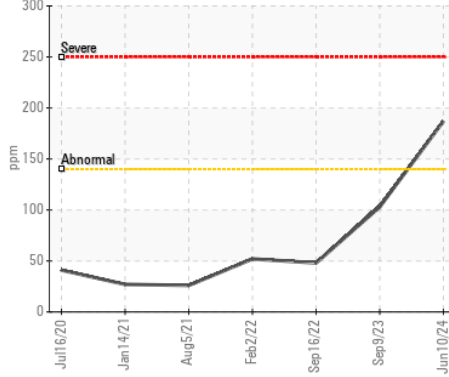
▲ Ferrous Alloys



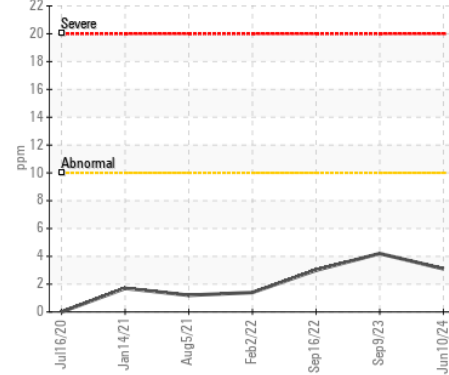
Viscosity @ 40°C



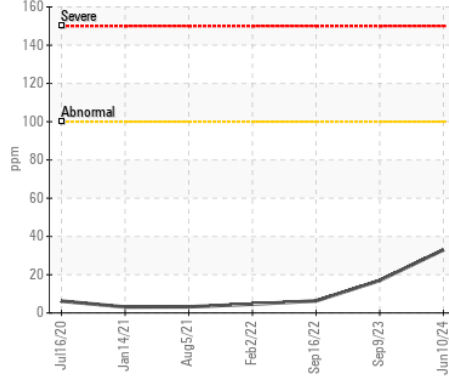
▲ Iron (ppm)



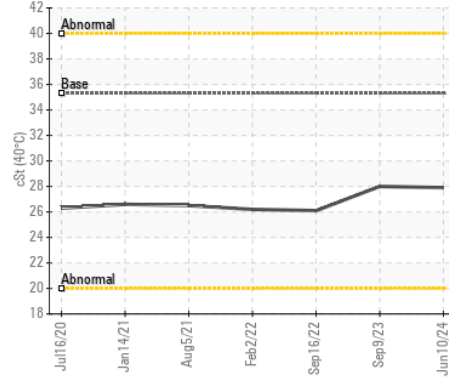
Aluminum (ppm)



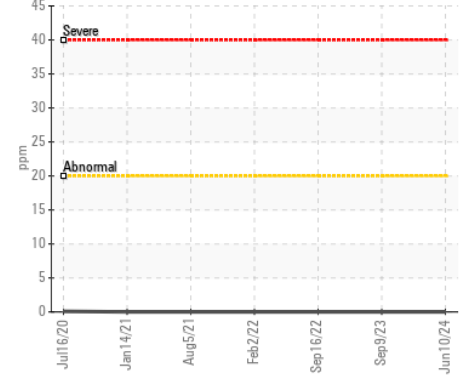
Copper (ppm)



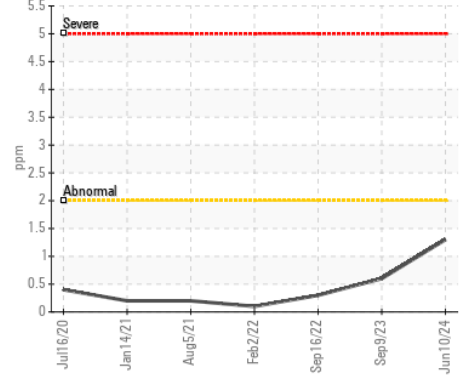
Viscosity @ 40°C



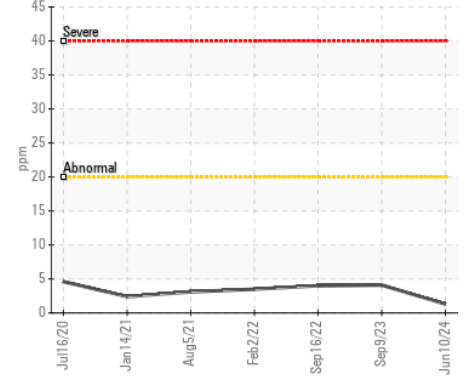
Lead (ppm)



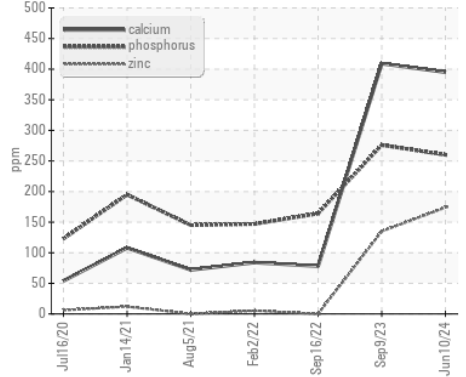
Chromium (ppm)



Silicon (ppm)



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : VCP430293
 Lab Number : 06210617
 Unique Number : 11083481
 Test Package : MOB 1
 Received : 14 Jun 2024
 Tested : 17 Jun 2024
 Diagnosed : 17 Jun 2024 - Angela Borella

CALLANAN
 RT 32 677 FLATBUSH RD
 EAST KINGSTON, NY
 US 12401
 Contact:

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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F: