



ASCENDUM

OIL ANALYSIS REPORT

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



Area
Ascendum Machinery
Machine Id
VOLVO L90G 617360
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | ASC0005141 | VCP0006538 | VCP250181 |
| Sample Date | | Client Info | | 20 Feb 2024 | 25 Apr 2023 | 09 Sep 2021 |
| Machine Age | hrs | Client Info | | 10670 | 10443 | 9914 |
| Oil Age | hrs | Client Info | | 227 | 529 | 0 |
| Filter Age | hrs | Client Info | | 227 | 529 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 27 | 22 | 7 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 11 | ▲ 24 | 3 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >15 | 5 | <1 | 3 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

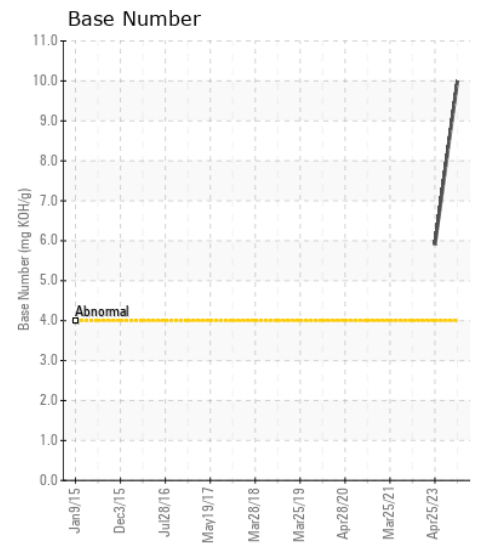
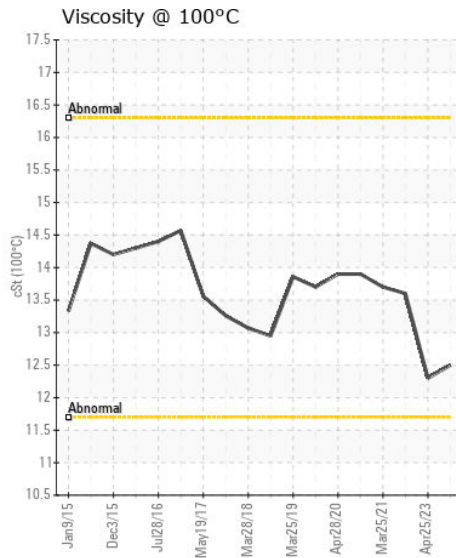
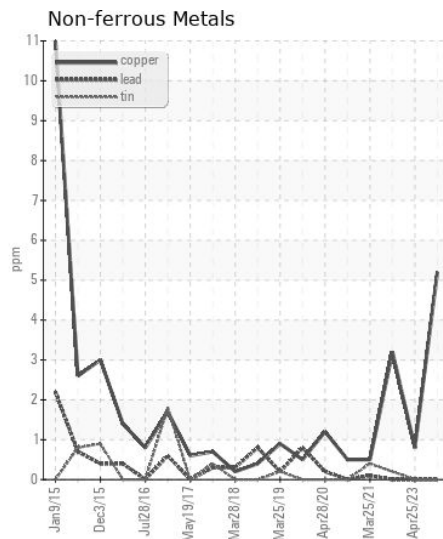
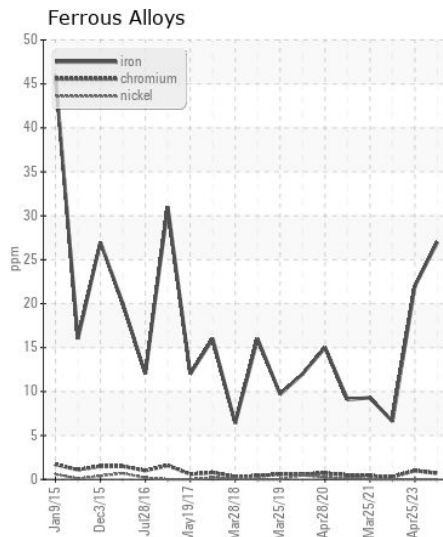
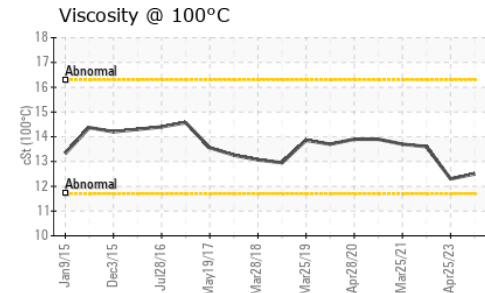
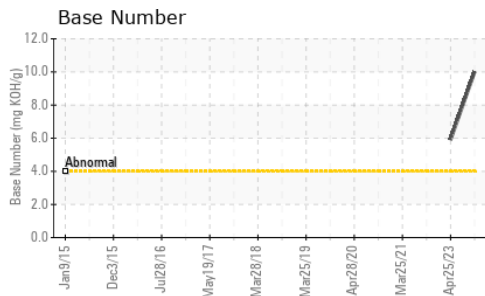
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 8 | 5 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Fuel | | WC Method | >6.0 | <1.0 | 0.3 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.2 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.6 | 8.6 | 9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.1 | 19.8 | 19.6 |
| 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 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 | | 2 | 3 | 2 |
| Boron | ppm | ASTM D5185m | | 43 | 39 | 34 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 46 | 49 | 49 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 545 | 668 | 687 |
| Calcium | ppm | ASTM D5185m | | 1699 | 1153 | 1204 |
| Phosphorus | ppm | ASTM D5185m | | 937 | 581 | 722 |
| Zinc | ppm | ASTM D5185m | | 1085 | 824 | 823 |
| Sulfur | ppm | ASTM D5185m | | 3020 | 2417 | 2012 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.8 | 17.0 | 17 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 10.0 | 5.9 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 12.5 | ● 12.3 | 13.6 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ASC0005141

Lab Number : 06101308

Unique Number : 10899538

Test Package : CONST (Additional Tests: TBN)

Received : 27 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 28 Feb 2024 - Don Baldrige

IAA - INSURANCE AUTO AUCTIONS - OAK BROOK

701 HARGER RD, SUITE 201

OAK BROOK, IL

US 60523

Contact: Service Manager

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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