



ASCENDUM

OIL ANALYSIS REPORT

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

Area

[25492]

Machine Id

VOLVO A45 752216

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. 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 | | ASC0000040 | --- | --- |
| Sample Date | | Client Info | | 17 Apr 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 570 | --- | --- |
| Oil Age | hrs | Client Info | | 500 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | ATTENTION | --- | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >100 | 16 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >2 | 2 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 3 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 314 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | 4 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

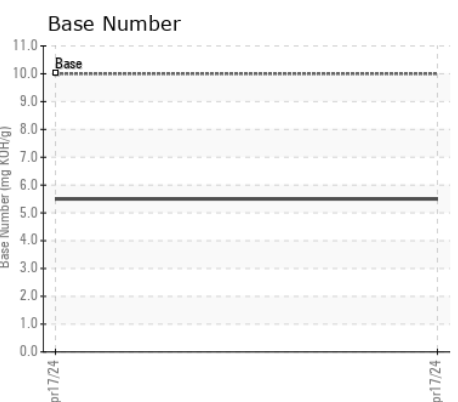
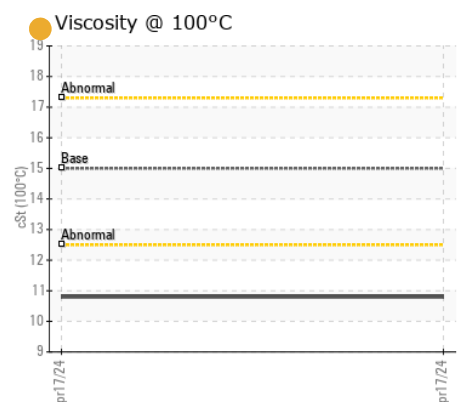
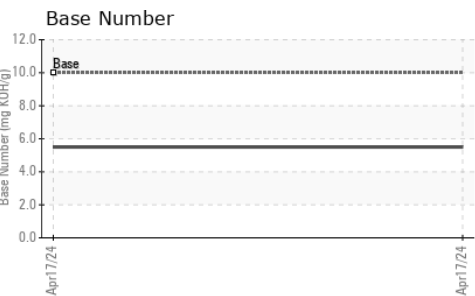
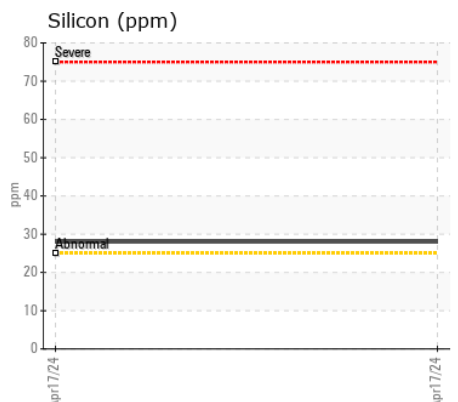
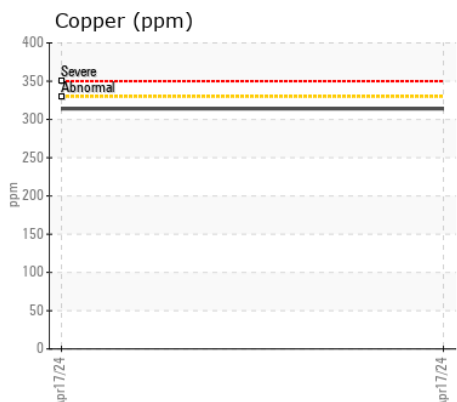
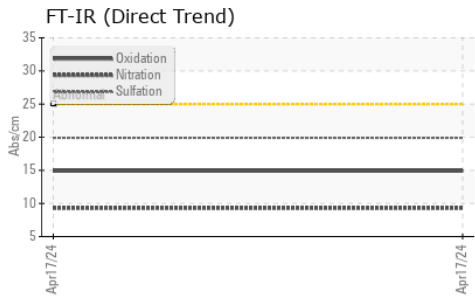
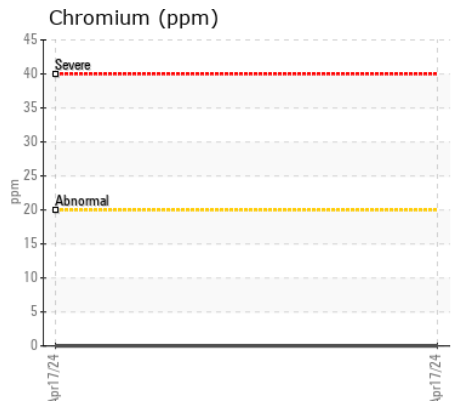
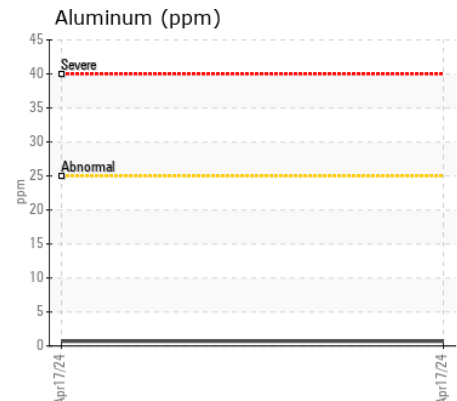
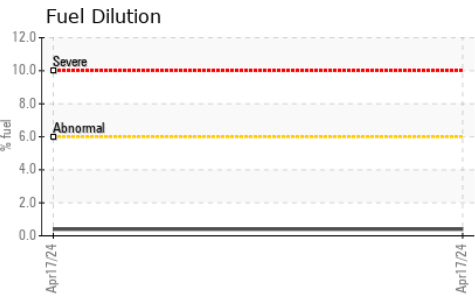
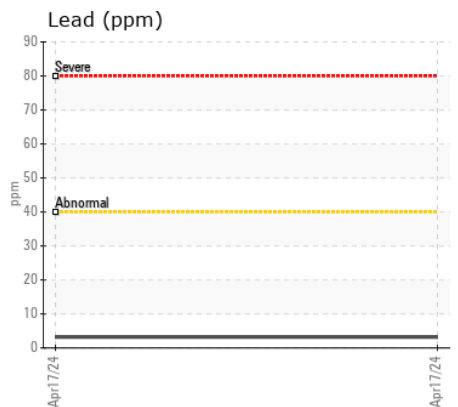
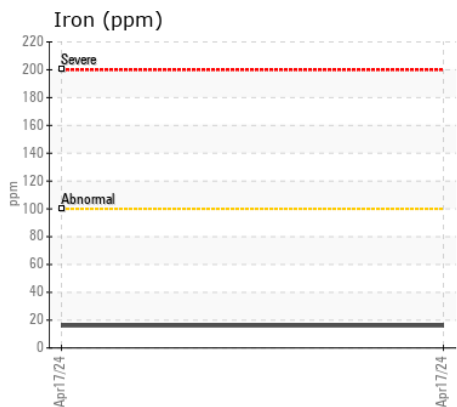
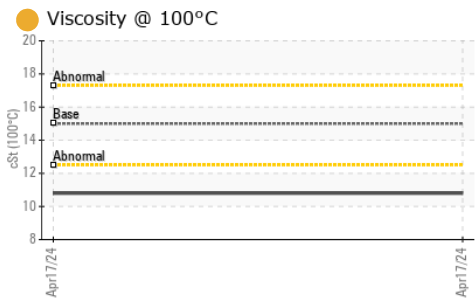
Fuel content negligible. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >25 | 28 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Fuel | % | ASTM D3524 | >6.0 | 0.4 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.3 | --- | --- |
| 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 | >0.2 | NEG | --- | --- |

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| | | | | | | |
|------------------|----------|-------------|------|------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | 2.5 | 40 | --- | --- |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0.7 | 89 | --- | --- |
| Manganese | ppm | ASTM D5185m | 0.0 | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 256 | 38 | --- | --- |
| Calcium | ppm | ASTM D5185m | 2057 | 2394 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 935 | 1046 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1223 | 1255 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 4079 | 4273 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.9 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10 | 5.5 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.0 | 10.8 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0000040
Lab Number : 06158706
Unique Number : 10994129
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

218 - ASCENDUM MACHINERY INC - N. CHARLESTON
 7235 CROSS COUNTRY RD.
 NORTH CHARLESTON, SC
 US 29418
 Contact: MATT MITCHAM
 matt.mitcham@ascendummachinery.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)

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