



ASCENDUM

OIL ANALYSIS REPORT

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



Area
Ascendum Machinery/500 Hour CSA
Machine Id
VOLVO L150H 2263 (S/N L150HV7093)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | ASC0010002 | VCP436529 | ASC0006136 |
| Sample Date | | Client Info | | 17 Apr 2024 | 19 Feb 2024 | 13 Dec 2023 |
| Machine Age | hrs | Client Info | | 4005 | 3554 | 3041 |
| Oil Age | hrs | Client Info | | 4005 | 1554 | 1041 |
| Filter Age | hrs | Client Info | | 2005 | 0 | 1041 |
| Oil Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Changed | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 10 | 5 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 5 | 4 |
| Lead | ppm | ASTM D5185m | >20 | 1 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >150 | 3 | 2 | 2 |
| Tin | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

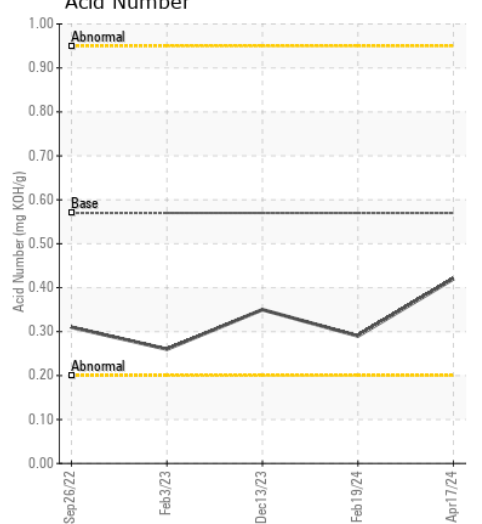
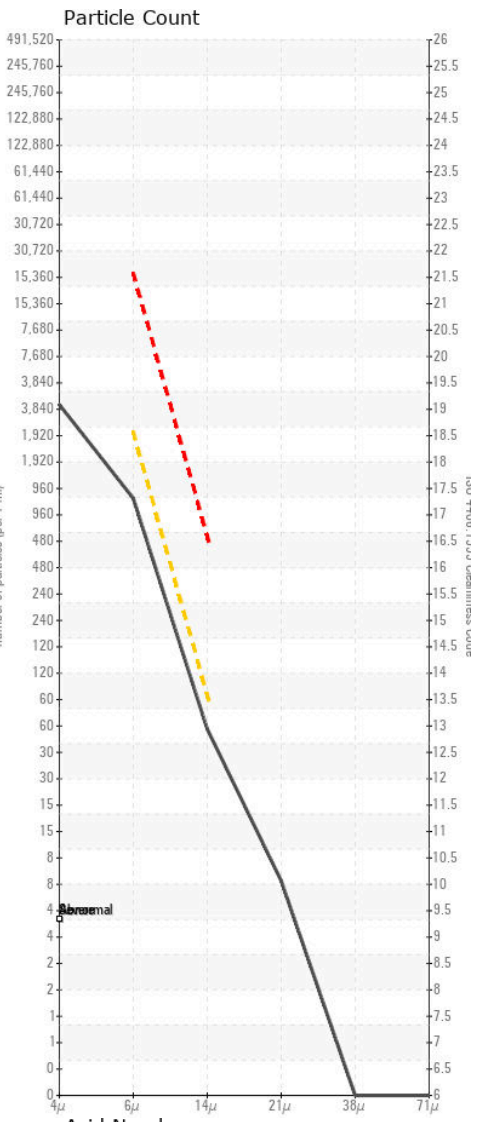
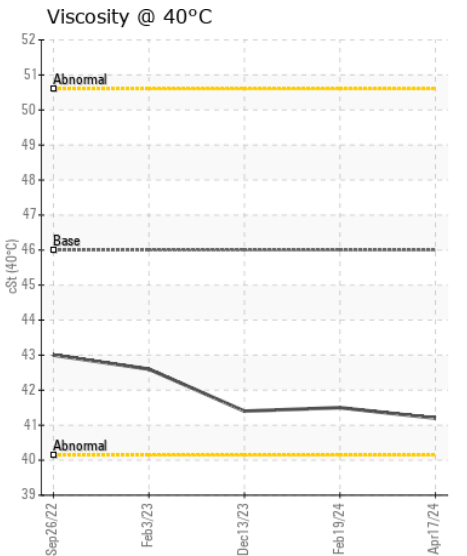
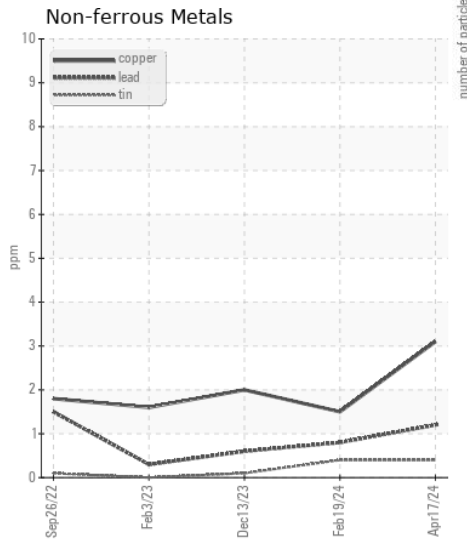
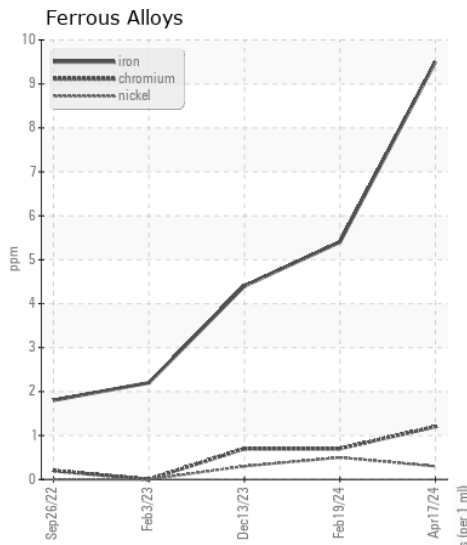
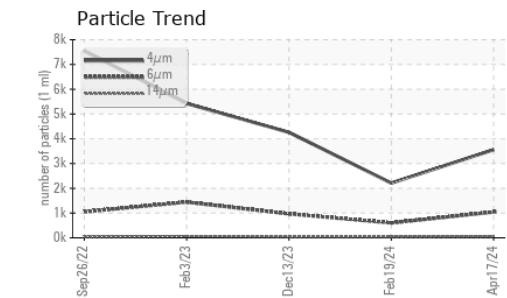
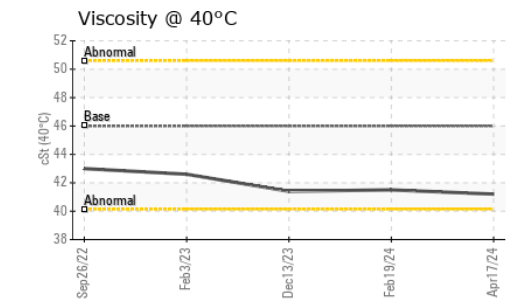
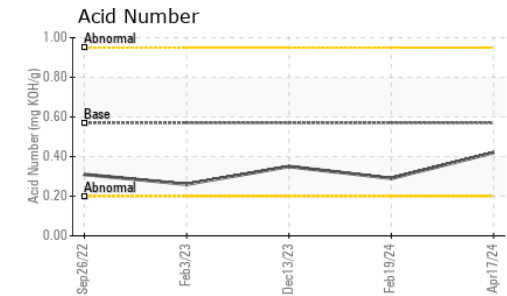
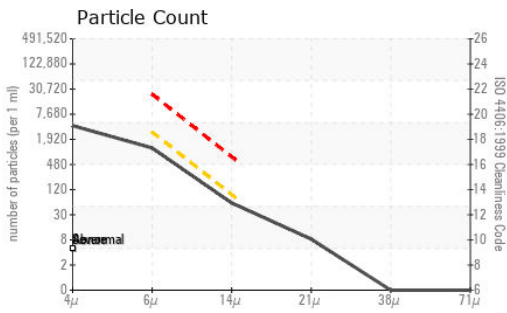
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >20 | 9 | 7 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 3 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | | 3560 | 2211 | 4260 |
| Particles >6µm | | ASTM D7647 | >2500 | 1045 | 601 | 969 |
| Particles >14µm | | ASTM D7647 | >80 | 51 | 42 | 41 |
| Particles >21µm | | ASTM D7647 | >20 | 7 | 8 | 12 |
| Particles >38µm | | ASTM D7647 | >4 | 0 | 1 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >-/18/13 | 19/17/13 | 18/16/13 | 19/17/13 |
| 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | <1 | 2 | 2 |
| Boron | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 25 | 1 | 0 | 1 |
| Calcium | ppm | ASTM D5185m | 200 | 54 | 46 | 53 |
| Phosphorus | ppm | ASTM D5185m | 300 | 311 | 335 | 338 |
| Zinc | ppm | ASTM D5185m | 370 | 442 | 439 | 452 |
| Sulfur | ppm | ASTM D5185m | 2500 | 1785 | 1737 | 1806 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | 0.42 | 0.29 | 0.35 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 41.2 | 41.5 | 41.4 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0010002 **Received** : 23 Apr 2024
Lab Number : 06157618 **Tested** : 24 Apr 2024
Unique Number : 10993041 **Diagnosed** : 24 Apr 2024 - Wes Davis
Test Package : CONST

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 US 27216
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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)