



# VOLVO PENTA

## OIL ANALYSIS REPORT

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

Area  
**[HAGGARD]**

Machine Id  
**VOLVO PENTA 3200003593**

Component  
**Starboard IPS**

Fluid  
**GEAR OIL SAE 75W90 (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

### WEAR

All component wear rates are normal.

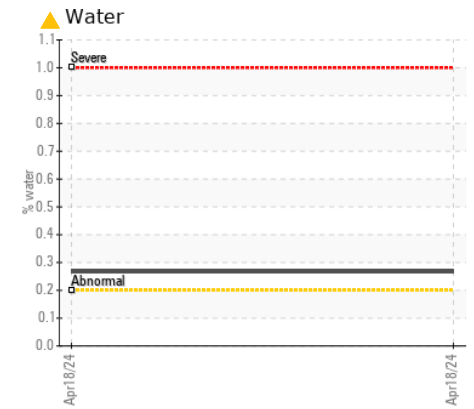
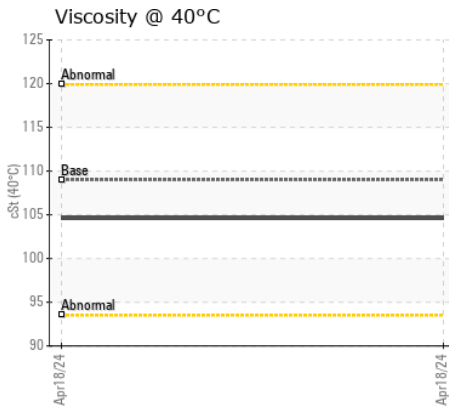
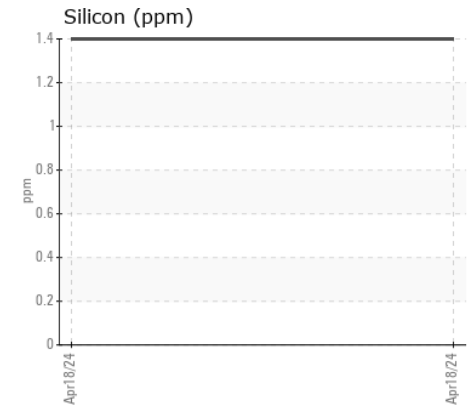
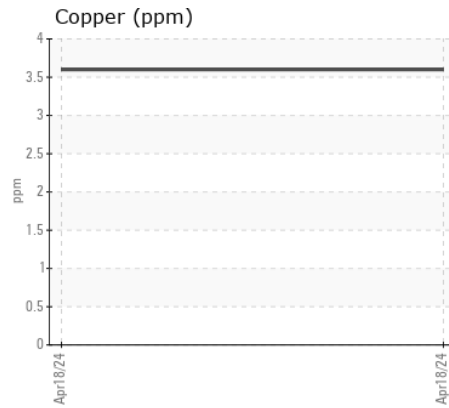
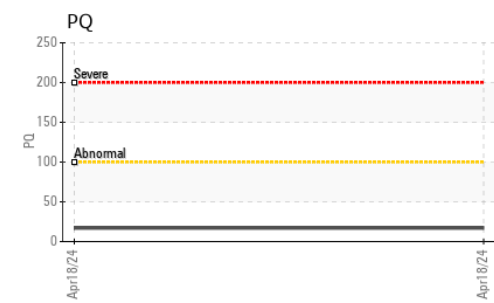
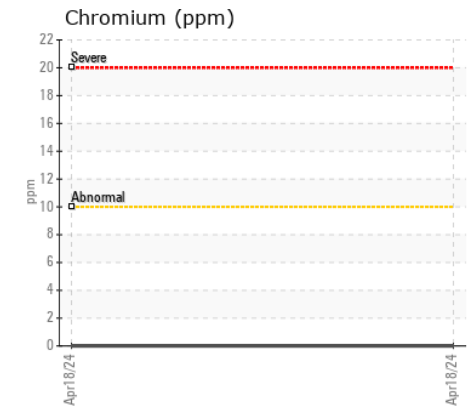
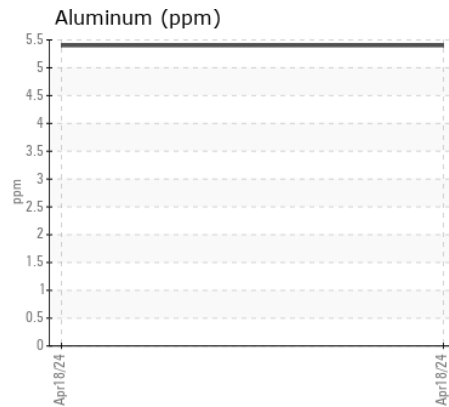
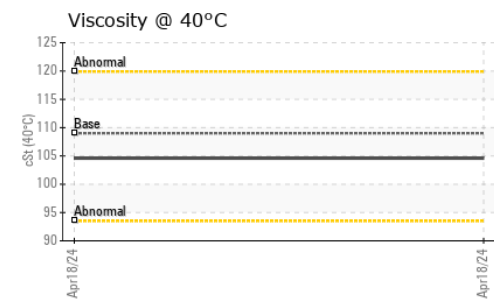
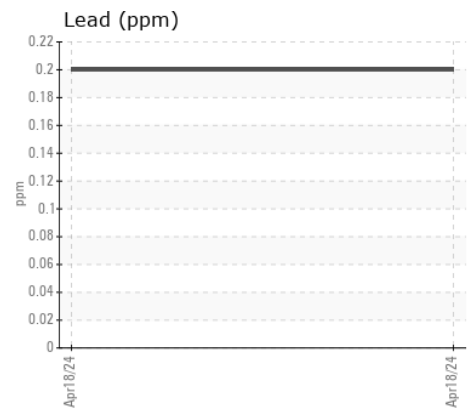
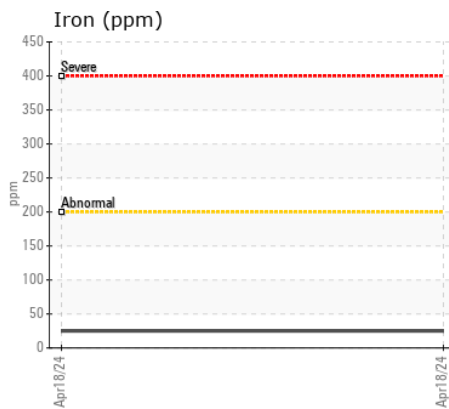
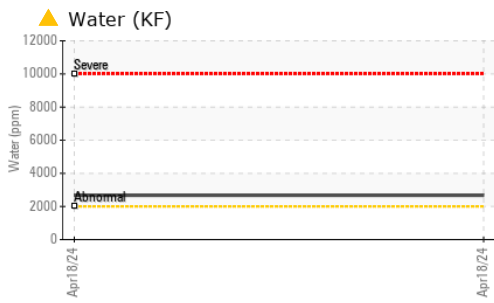
### CONTAMINATION

There is a light concentration of water present in the oil.

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

| Test             | UOM    | Method      | Limit/Abn | Current     | History1 | History2 |
|------------------|--------|-------------|-----------|-------------|----------|----------|
| Sample Number    |        | Client Info |           | VPA062948   | ---      | ---      |
| Sample Date      |        | Client Info |           | 18 Apr 2024 | ---      | ---      |
| Machine Age      | hrs    | Client Info |           | 203         | ---      | ---      |
| Oil Age          | hrs    | Client Info |           | 0           | ---      | ---      |
| Filter Age       | hrs    | Client Info |           | 0           | ---      | ---      |
| Oil Changed      |        | Client Info |           | Not Changd  | ---      | ---      |
| Filter Changed   |        | Client Info |           | Not Changd  | ---      | ---      |
| Sample Status    |        |             |           | ABNORMAL    | ---      | ---      |
| PQ               |        | ASTM D8184  |           | 17          | ---      | ---      |
| Iron             | ppm    | ASTM D5185m | >200      | 25          | ---      | ---      |
| Chromium         | ppm    | ASTM D5185m | >10       | 0           | ---      | ---      |
| Nickel           | ppm    | ASTM D5185m | >10       | 0           | ---      | ---      |
| Titanium         | ppm    | ASTM D5185m |           | 0           | ---      | ---      |
| Silver           | ppm    | ASTM D5185m |           | 0           | ---      | ---      |
| Aluminum         | ppm    | ASTM D5185m |           | 5           | ---      | ---      |
| Lead             | ppm    | ASTM D5185m |           | <1          | ---      | ---      |
| Copper           | ppm    | ASTM D5185m |           | 4           | ---      | ---      |
| Tin              | ppm    | ASTM D5185m |           | <1          | ---      | ---      |
| Vanadium         | ppm    | ASTM D5185m |           | <1          | ---      | ---      |
| White Metal      | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Yellow Metal     | scalar | *Visual     | NONE      | NONE        | ---      | ---      |
| Silicon          | ppm    | ASTM D5185m |           | 1           | ---      | ---      |
| Potassium        | ppm    | ASTM D5185m | >20       | 2           | ---      | ---      |
| Water            | %      | ASTM D6304  | >0.2      | ▲ 0.267     | ---      | ---      |
| ppm Water        | ppm    | ASTM D6304  | >2000     | ▲ 2670      | ---      | ---      |
| 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      | ▲ 0.2%      | ---      | ---      |
| Sodium           | ppm    | ASTM D5185m |           | 4           | ---      | ---      |
| Boron            | ppm    | ASTM D5185m | 400       | 336         | ---      | ---      |
| Barium           | ppm    | ASTM D5185m | 200       | 9           | ---      | ---      |
| Molybdenum       | ppm    | ASTM D5185m | 12        | <1          | ---      | ---      |
| Manganese        | ppm    | ASTM D5185m |           | 4           | ---      | ---      |
| Magnesium        | ppm    | ASTM D5185m | 12        | 27          | ---      | ---      |
| Calcium          | ppm    | ASTM D5185m | 150       | 8           | ---      | ---      |
| Phosphorus       | ppm    | ASTM D5185m | 1650      | 1429        | ---      | ---      |
| Zinc             | ppm    | ASTM D5185m | 125       | 5           | ---      | ---      |
| Sulfur           | ppm    | ASTM D5185m | 22500     | 28236       | ---      | ---      |
| Visc @ 40°C      | cSt    | ASTM D445   | 109       | 104.6       | ---      | ---      |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA062948 **Received** : 19 Apr 2024  
**Lab Number** : 06155034 **Tested** : 19 Apr 2024  
**Unique Number** : 10990457 **Diagnosed** : 19 Apr 2024 - Doug Bogart  
**Test Package** : MOB 1 ( Additional Tests: KF, PQ )

**SUNCOAST DIESEL MARINE**  
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 SARASOTA, FL  
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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)