## **OIL ANALYSIS REPORT**

### VOLVO PENTA A 1 197384 - STARBOARD DIESEL ENGINE

Sample No: VPA051936

Oil Type: VOLVO PENTA SAE 15W40

#### SAMPLE INFORMATION Sample Number VPA051936 Sample Date 10 Oct 2023 Machine Hours 120 **Oil Hours** 120 Oil Changed Changed NORMAL Sample Status **OIL CONDITION** F: 12.6 Visc @ 100°C cSt Base Number (BN) mg KOH/g 10.6 Oxidation (PA) % 77 CONTAMINATION Soot % % 0.4 % Nitration (PA) 48 Sulfation (PA) % 61 % Glycol NEG Fuel % <1.0 Silicon ppm 19 Sodium 5 ppm Potassium ppm 0 🔲 WEAR METALS 18 Iron ppm 20 Copper ppm Lead ppm 4 Tin 2 ppm Aluminum ppm **7** Chromium 1 ppm Molybdenum 39 ppm Nickel 1 ppm Titanium 0 🔲 ppm Silver ppm 0 🔲 Manganese 1 ppm Vanadium 0 ppm **ADDITIVES** Calcium 1554 ppm Magnesium 407 ppm Zinc ppm 956 Phosphorus ppm 812 Barium ppm 0 🔲 58 Boron ppm



North Harbor Diesel Inc 720 30Th Street ANACORTES, WA US 98221 Contact: ROBBIN MURDOCK robbin@northharbordiesel.com T: (360)299-1904

#### Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. 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.

 Depot:
 VP179089

 Unique No:
 10698234

 Signed:
 Don Baldridge

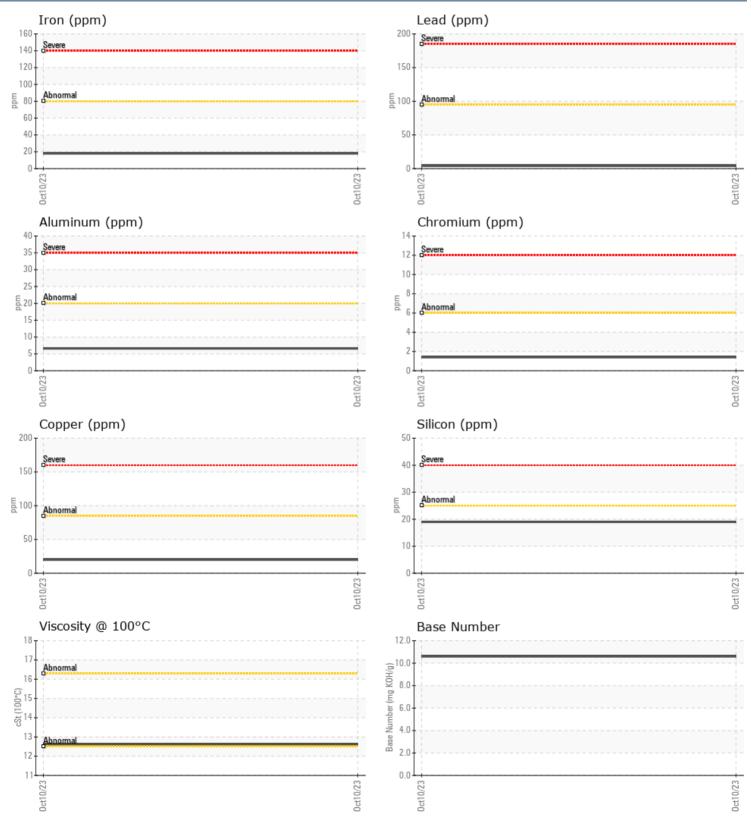
 Report Date:
 18 Oct 2023

Contact/Location: ROBBIN MURDOCK - VP179089

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#### GRAPHS



Report Id: VP179089 [WUSCAR] 05980939 (Generated: 10/23/2023 01:00:17) Rev: 1

Contact/Location: ROBBIN MURDOCK - VP179089