## **OIL ANALYSIS REPORT**

### JOE NIEMER 501985 VOLVO PENTA A401237 - STARBOARD DIESEL ENGINE

Sample No: VPA056281

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

#### SAMPLE INFORMATION Sample Number VPA056281 Sample Date 27 Jun 2023 Machine Hours 450 0 **Oil Hours** Oil Changed Changed NORMAL Sample Status **OIL CONDITION** Visc @ 100°C cSt 13.9 Base Number (BN) mg KOH/g 9.0 Oxidation (PA) % 61 CONTAMINATION Soot % % 0.1 % Nitration (PA) 58 Sulfation (PA) % 55 % Glycol NEG Fuel % <1.0 Silicon ppm 5 Sodium 2 ppm Potassium ppm 1 WEAR METALS Iron ppm 9 Copper 2 ppm Lead ppm 0 Tin ■ <1 ppm Aluminum 1 ppm Chromium **|** <1 ppm Molybdenum 42 ppm Nickel ■ <1 ppm Titanium < 1 </p> ppm Silver ppm 0 Manganese **||** <1 ppm Vanadium 0 ppm ADDITIVES Calcium 1314 ppm Magnesium 779 ppm 904 Zinc ppm Phosphorus ppm 756 Barium ppm 0 🔲 Boron ppm 170

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#### 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 suitable for further service.

 Depot:
 VP794951

 Unique No:
 10549102

 Signed:
 Don Baldridge

 Report Date:
 11 Jul 2023

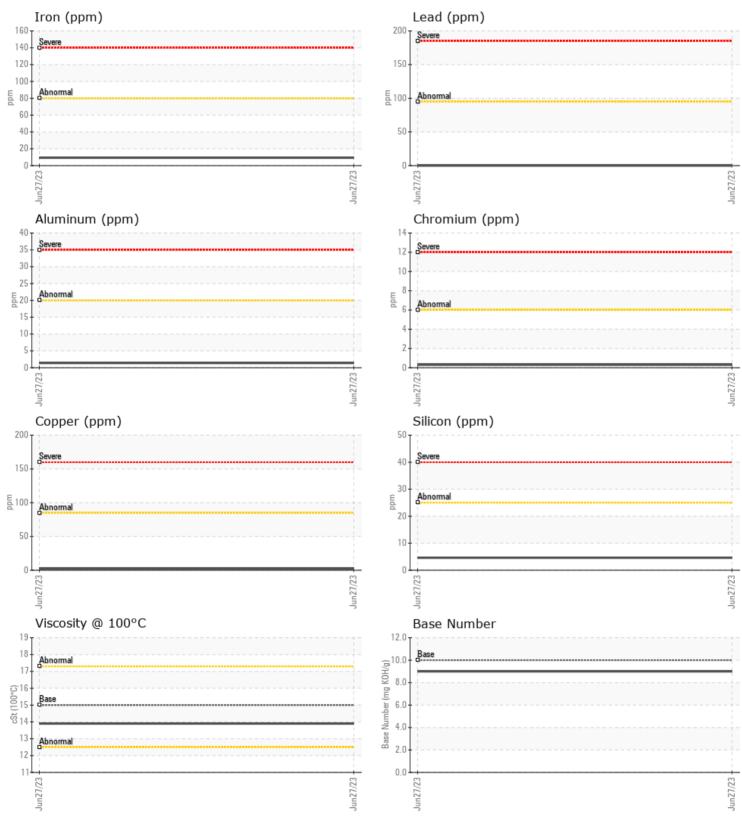
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#### GRAPHS



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