OIL ANALYSIS REPORT

NADINE URCIUOLI 2300439 VOLVO PENTA 5102093818G - CENTER DIESEL ENGINE

VPA051747 Sample No:

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

SAMPLE INFORMATION VPA051747 Sample Number Sample Date 28 Aug 2023 Machine Hours 200 200 **Oil Hours** Oil Changed Changed ABNORMAL Sample Status T: x: **OIL CONDITION** F: x: Visc @ 100°C **12.0** cSt Base Number (BN) mg KOH/g 9.3 Oxidation (PA) % 53 CONTAMINATION Soot % % 0.1 % Nitration (PA) 48 Sulfation (PA) % 49 % Glycol NEG Fuel % **A** 3.5 Silicon ppm 5 Sodium 2 ppm Potassium 0 ppm WEAR METALS Iron ppm 7 8 Copper ppm Lead ppm <1 Tin ■ <1 ppm Aluminum ppm 3 Chromium 0 ppm Molybdenum 61 ppm Nickel 0 ppm Titanium 0 🔲 ppm Silver ppm 0 🔲 Manganese ■ <1 ppm Vanadium <1 ppm **ADDITIVES** Calcium 1177 ppm Magnesium 907 ppm 1204 Zinc ppm Phosphorus ppm 1027 Barium ppm 0 🔲 Boron ppm 5 Depot:

Helmuts Marine Service 619 Canal Street SAN RAFAEL. CA US 94901-3545 Contact: NADINE URCIUOLI SERVICE@HEI MUTSMARINE COM

Diagnosis

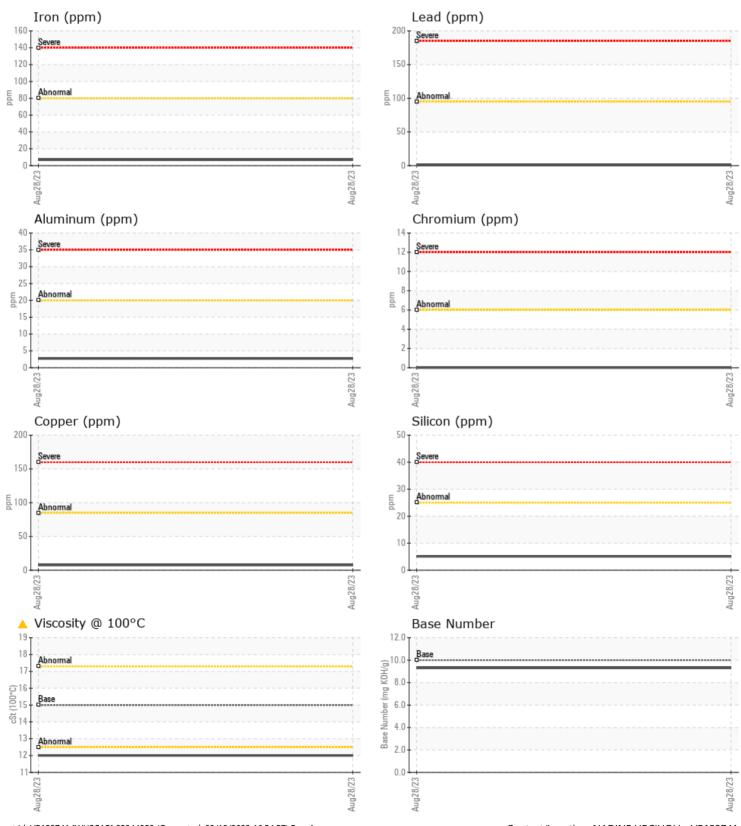
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.



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GRAPHS



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