



CONSTRUCTION EQUIPMENT

673784 SENNEBOGEN 840 2364 - DIESEL ENGINE



Sample No: VCP442442
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 673784



SAMPLE INFORMATION

Sample Number	VCP442442	VCP431914	VCP426589	VCP424844
Sample Date	20 Feb 2024	10 Oct 2023	19 Jun 2023	27 Mar 2023
Machine Hours	3131	2195	1407	745
Oil Hours	1000	500	500	745
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	MARGINAL	ABNORMAL

FERROUS PROCESSING AND TRADING
 3400 E LAFAYETTE
 DETROIT, MI
 US 48207
 Contact: KEITH HALL
 keith.hall@fpt1.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	▲ 11.6	■ 12.9	■ 12.8	▲ 10.8
Base Number (BN)	mg KOH/g	■ 4.8	■ 5.5	■ 5.8	■ 6.5
Oxidation (PA)	%	94	79	79	76

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.2	■ 0.2	■ 0.2	■ 0.2
Nitration (PA)	%	96	93	85	88
Sulfation (PA)	%	67	63	60	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	▲ 7.1	<1.0	▲ 2.0	▲ 5.1
Silicon	ppm	■ 6	■ 4	■ 5	■ 17
Sodium	ppm	■ 2	■ 3	■ 2	■ 5
Potassium	ppm	■ 8	■ 22	■ 12	■ 35

WEAR METALS

Iron	ppm	■ 36	■ 17	■ 15	■ 34
Copper	ppm	■ 3	■ 1	■ 3	■ 14
Lead	ppm	■ <1	■ <1	■ 0	■ <1
Tin	ppm	■ 1	■ 0	■ <1	■ <1
Aluminum	ppm	■ 5	■ 8	■ 5	■ 11
Chromium	ppm	■ 2	■ <1	■ <1	■ 1
Molybdenum	ppm	■ 64	■ 60	■ 63	■ 81
Nickel	ppm	■ 1	■ 0	■ 0	■ 0
Titanium	ppm	<1	0	0	<1
Silver	ppm	■ <1	■ 0	■ 0	■ 0
Manganese	ppm	■ 1	■ <1	■ <1	■ 4
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	■ 2041	■ 2192	■ 2227	■ 2139
Magnesium	ppm	42	42	48	■ 160
Zinc	ppm	■ 1110	■ 1099	■ 1225	■ 1195
Phosphorus	ppm	■ 898	■ 981	■ 972	■ 985
Barium	ppm	■ 1	■ 0	■ 0	■ 8
Boron	ppm	■ 37	■ 27	■ 37	■ 46

Depot: FERDET
Unique No: 10900925
Signed: Wes Davis
Report Date: 04 Mar 2024



CONSTRUCTION EQUIPMENT



GRAPHS

