



# CONSTRUCTION EQUIPMENT

## VOLVO EC380EL 31 1273 - REAR RIGHT FINAL DRIVE



**Sample No:** VCP433664

**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5

**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP433664</b>	VCP384262	VCP379129	VCP340603
Sample Date	<b>14 Jun 2024</b>	06 Feb 2023	10 Aug 2022	31 Mar 2022
Machine Hours	<b>6605</b>	5125	4625	4160
Oil Hours	<b>0</b>	0	1000	500
Oil Changed	<b>Not Chngd</b>	Not Chngd	Not Chngd	Not Chngd
Sample Status	<b>SEVERE</b>	SEVERE	SEVERE	SEVERE

**LEONARDS CONTRACTING**  
 30850 STEPHENSON HWY  
 MADISON HEIGHTS, MI  
 US 48071  
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### OIL CONDITION

Visc @ 40°C	cSt	<b>276</b>	145	121	124
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### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Silicon	ppm	<b>▲ 1602</b>	▲ 588	▲ 550	▲ 1146
Sodium	ppm	■ 45	■ 15	■ 15	■ 36
Potassium	ppm	■ 81	■ 44	■ 24	■ 65



### WEAR METALS

Iron	ppm	<b>▲ 4552</b>	▲ 663	▲ 1005	▲ 1861
Copper	ppm	■ 10	■ 1	■ 2	■ 5
Lead	ppm	■ 0	■ <1	■ <1	■ 1
Tin	ppm	■ 0	■ <1	■ 0	■ 1
Aluminum	ppm	<b>● 216</b>	● 126	● 56	● 175
Chromium	ppm	<b>▲ 33</b>	■ 6	■ 5	▲ 20
Molybdenum	ppm	■ 4	■ <1	■ <1	■ 4
Nickel	ppm	■ 6	2	0	6
Titanium	ppm	■ 13	6	2	■ 11
Silver	ppm	■ 0	0	0	<1
Manganese	ppm	■ 28	■ 5	■ 6	■ 14
Vanadium	ppm	<1	<1	<1	<1



### ADDITIVES

Calcium	ppm	■ 464	■ 225	■ 1179	■ 2373
Magnesium	ppm	■ 103	■ 47	■ 35	■ 69
Zinc	ppm	■ 30	■ 12	■ 730	■ 888
Phosphorus	ppm	■ 1704	1611	■ 714	■ 904
Barium	ppm	■ 2	■ 0	■ 2	■ 0
Boron	ppm	■ 104	■ 105	■ 18	■ 47

### Diagnosis

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** LEOMAD  
**Unique No:** 11087943  
**Signed:** Sean Felton  
**Report Date:** 21 Jun 2024



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## VOLVO GRAPHS

