



# CONSTRUCTION EQUIPMENT

## 3017 VOLVO EC380EL 310195 - FRONT RIGHT FINAL DRIVE



**Sample No:** VCP382959  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** 3017



### SAMPLE INFORMATION

Sample Number	<b>VCP382959</b>	VCP401528	VCP372341	VCE238720
Sample Date	<b>04 Jan 2024</b>	18 Jul 2023	09 Jan 2023	14 Sep 2017
Machine Hours	<b>5715</b>	5200	4735	510
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>Not Chngd</b>	Not Chngd	Not Chngd	Not Chngd
Sample Status	<b>SEVERE</b>	SEVERE	SEVERE	ABNORMAL

### LEONARDS CONTRACTING

30850 STEPHENSON HWY  
MADISON HEIGHTS, MI  
US 48071

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### OIL CONDITION

Visc @ 40°C	cSt	<b>141</b>	116	110	167.4
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### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Silicon	ppm	<b>410</b>	1103	1105	29
Sodium	ppm	<b>11</b>	28	34	3
Potassium	ppm	<b>25</b>	71	73	18



### WEAR METALS

Iron	ppm	<b>1065</b>	1763	2789	307
Copper	ppm	<b>3</b>	3	6	<1
Lead	ppm	<b>&lt;1</b>	0	<1	1
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>64</b>	169	120	5
Chromium	ppm	<b>9</b>	11	23	4
Molybdenum	ppm	<b>2</b>	2	3	0
Nickel	ppm	<b>2</b>	4	2	<1
Titanium	ppm	<b>4</b>	11	11	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>7</b>	12	17	6
Vanadium	ppm	<b>&lt;1</b>	<1	<1	0



### ADDITIVES

Calcium	ppm	<b>88</b>	285	262	8
Magnesium	ppm	<b>27</b>	90	74	3
Zinc	ppm	<b>0</b>	<1	15	14
Phosphorus	ppm	<b>756</b>	1741	2029	375
Barium	ppm	<b>0</b>	0	1	1
Boron	ppm	<b>21</b>	139	164	<1

### 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 recommend an early resample to monitor this condition. The iron level has decreased, but is still abnormal. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** LEOMAD  
**Unique No:** 10847421  
**Signed:** Don Baldrige  
**Report Date:** 28 Jan 2024



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## GRAPHS

