



CONSTRUCTION EQUIPMENT

SPM645360 VOLVO EC380EL 311492 - LEFT FINAL DRIVE



Sample No: VCP433393
Oil Type: GEAR OIL SAE 80W90
Job No: SPM645360



SAMPLE INFORMATION

Sample Number	VCP433393	VCP414195	VCP403439	VCP312888
Sample Date	01 Dec 2023	21 Jul 2023	28 Feb 2023	09 Mar 2022
Machine Hours	3109	7780	6944	5012
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Chngd	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	SEVERE

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OIL CONDITION

Visc @ 40°C	cSt	182	149	164	88.0
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CONTAMINATION

Water	%	NEG	0.113	0.229	NEG
Silicon	ppm	223	109	210	112
Sodium	ppm	5	4	8	4
Potassium	ppm	17	6	10	7



WEAR METALS

Iron	ppm	588	400	1330	1614
Copper	ppm	3	2	6	7
Lead	ppm	0	3	5	5
Tin	ppm	0	<1	2	2
Aluminum	ppm	45	32	56	28
Chromium	ppm	8	6	23	20
Molybdenum	ppm	3	<1	4	2
Nickel	ppm	<1	<1	1	<1
Titanium	ppm	2	3	6	2
Silver	ppm	0	0	<1	0
Manganese	ppm	8	14	32	19
Vanadium	ppm	0	<1	<1	<1



ADDITIVES

Calcium	ppm	2336	377	2784	202
Magnesium	ppm	113	42	129	57
Zinc	ppm	935	147	885	15
Phosphorus	ppm	996	1371	799	508
Barium	ppm	3	0	3	0
Boron	ppm	48	69	7	6

Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

Depot: BELBOU
Unique No: 10873752
Signed: Sean Felton
Report Date: 13 Feb 2024



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GRAPHS

