



CONSTRUCTION EQUIPMENT

VOLVO G940 43199 - DIESEL ENGINE



Sample No: VCE179383
Oil Type: CO-OP D-MO SAE 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCE179383	VCP179381	VCE179380	VCE243321
Sample Date	18 Mar 2024	29 Oct 2023	19 Jan 2023	20 Nov 2022
Machine Hours	16072	15633	15125	14589
Oil Hours	450	500	536	500
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

City of Steinbach
 51 Millwork Road
 Steinbach, MB
 CA R2G 2J1
 Contact: Randy Reimer
 rreimer@steinbach.ca
 T: (204)346-6215
 F: (204)346-6239



OIL CONDITION

Visc @ 100°C	cSt	14.9	15.1	15.0	14.9
Oxidation (PA)	%	59	62	56	62



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.3	0	0.1
Nitration (PA)	%	75	79	71	85
Sulfation (PA)	%	53	56	55	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	6	5	6
Sodium	ppm	3	3	2	3
Potassium	ppm	<1	<1	<1	<1

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	6	10	6	8
Copper	ppm	<1	<1	<1	<1
Lead	ppm	0	<1	0	<1
Tin	ppm	0	0	<1	0
Aluminum	ppm	3	3	3	4
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	95	97	96	96
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	<1	0
Silver	ppm	0	<1	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	<1



ADDITIVES

Calcium	ppm	2347	2414	2473	2402
Magnesium	ppm	17	16	12	13
Zinc	ppm	1278	1282	1280	1247
Phosphorus	ppm	1073	1054	1157	1146
Barium	ppm	0	<1	0	0
Boron	ppm	50	36	52	42

Depot: CIT51STE
Unique No: 5749667
Signed: Wes Davis
Report Date: 26 Mar 2024



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VOLVO GRAPHS

