



CONSTRUCTION EQUIPMENT

VOLVO L220E L220EV4084 - DIESEL ENGINE



Sample No: VCP381519
Oil Type: MOBIL 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP381519	VC527571	VC271405	VC527569
Sample Date	04 Jan 2024	18 Nov 2021	25 May 2021	04 Mar 2021
Machine Hours	12200	11600	11425	11227
Oil Hours	126	175	198	292
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

DUNN COUNTY HIGHWAY DEPARTMENT
 ROUTE 2 BOX 71A, 3303 US HWY 12 EAST
 MENOMONIE, WI
 US 54751
 Contact: DANNY NELSON
 dnelson@co.dunn.wi.us
 T: (715)232-2361
 F: (715)232-3888



OIL CONDITION

Visc @ 100°C	cSt	13.0	13.0	13.6	13.2
Base Number (BN)	mg KOH/g	8.1	---	---	---
Oxidation (PA)	%	61	71	59	80



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.2	0.4	0.4
Nitration (PA)	%	58	54	67	66
Sulfation (PA)	%	54	59	58	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	9	5	0
Sodium	ppm	2	2	4	5
Potassium	ppm	2	0	10	2



WEAR METALS

Iron	ppm	3	5	7	7
Copper	ppm	1	<1	<1	<1
Lead	ppm	1	0	1	<1
Tin	ppm	1	0	0	<1
Aluminum	ppm	2	2	3	2
Chromium	ppm	<1	<1	<1	0
Molybdenum	ppm	29	29	8	30
Nickel	ppm	0	0	<1	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1728	1796	2308	1570
Magnesium	ppm	347	388	142	506
Zinc	ppm	984	861	960	795
Phosphorus	ppm	858	803	873	726
Barium	ppm	0	0	0	0
Boron	ppm	21	46	24	59

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: DUNMEN
Unique No: 10859457
Signed: Wes Davis
Report Date: 02 Feb 2024



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VOLVO GRAPHS

