



CONSTRUCTION EQUIPMENT

10021 VOLVO L220H 3007 - DIESEL ENGINE



Sample No: VCP388538
Oil Type: CHEVRON 15W40
Job No: 10021



SAMPLE INFORMATION

Sample Number	VCP388538	VCP396814	VCP291785	VCP278217
Sample Date	11 Dec 2023	31 Jan 2023	10 Mar 2021	16 Oct 2020
Machine Hours	11094	8919	6154	5200
Oil Hours	0	0	1000	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ATTENTION	NORMAL



RECYCLE 1
 4700 LAWRENCE ST
 HYATTSVILLE, MD
 US 20781
 Contact: MIKE DESJARDINS
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 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.8	11.4	12.4	13.2
Base Number (BN)	mg KOH/g	2.9	7.0	---	---
Oxidation (PA)	%	94	82	80	47



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.5	0.3	0.2	0.1
Nitration (PA)	%	75	77	74	58
Sulfation (PA)	%	77	60	61	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	2.1	<1.0
Silicon	ppm	34	37	16	12
Sodium	ppm	6	1	2	1
Potassium	ppm	<1	2	3	<1



WEAR METALS

Iron	ppm	39	34	12	7
Copper	ppm	7	5	2	2
Lead	ppm	6	2	0	<1
Tin	ppm	0	<1	0	<1
Aluminum	ppm	9	11	3	2
Chromium	ppm	2	3	2	1
Molybdenum	ppm	74	43	34	5
Nickel	ppm	5	8	5	2
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1748	1649	1749	2293
Magnesium	ppm	434	438	449	104
Zinc	ppm	1215	1016	1049	1098
Phosphorus	ppm	1015	848	913	891
Barium	ppm	0	<1	0	0
Boron	ppm	23	27	22	6

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN level is low. The condition of the oil is acceptable for the time in service.

Depot: RECHYA
Unique No: 10790928
Signed: Don Baldrige
Report Date: 19 Dec 2023



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GRAPHS

