



CONSTRUCTION EQUIPMENT

9989 VOLVO ECR235EL 310385 - DIESEL ENGINE



Sample No: VCP388513
Oil Type: CHEVRON 15W40
Job No: 9989



SAMPLE INFORMATION

Sample Number	VCP388513	VCP422893	VCP383662	VCP340164
Sample Date	06 Dec 2023	28 Aug 2023	15 Nov 2022	06 Dec 2021
Machine Hours	4500	4209	3837	3270
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

DIRT PLUS
 1001 PRINCE GEORGES BLVD
 UPPER MARLBORO, MD
 US 20772
 Contact: MARCO DECESARIS
 mdecasaris@dirtyplus.biz
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.5	13.5	13.2	13.7
Base Number (BN)	mg KOH/g	7.8	7.6	9.6	8.3
Oxidation (PA)	%	63	58	76	81

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.2
Nitration (PA)	%	56	63	89	88
Sulfation (PA)	%	59	56	66	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	7	8	7
Sodium	ppm	0	2	<1	2
Potassium	ppm	2	0	2	<1

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.

WEAR METALS

Iron	ppm	18	52	33	32
Copper	ppm	1	2	3	3
Lead	ppm	<1	0	<1	3
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	4	6	7	6
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	83	97	129	122
Nickel	ppm	<1	0	0	0
Titanium	ppm	2	2	<1	2
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	<1	0	<1

ADDITIVES

Calcium	ppm	1363	1619	1582	1777
Magnesium	ppm	389	461	630	725
Zinc	ppm	1198	1249	880	901
Phosphorus	ppm	949	1046	720	806
Barium	ppm	11	0	0	0
Boron	ppm	415	425	229	170

Depot: DIRUPP
Unique No: 10782850
Signed: Wes Davis
Report Date: 14 Dec 2023



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GRAPHS

