



CONSTRUCTION EQUIPMENT

658972 VOLVO ECR145E 311261 - DIESEL ENGINE



Sample No: VCP452333
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 658972



SAMPLE INFORMATION

Sample Number	VCP452333	VCP310918	VCP272890	VCP237704
Sample Date	04 Jan 2024	12 May 2021	19 Mar 2020	06 Dec 2018
Machine Hours	2833	1858	1369	472
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: PM Services
PMServices@ripaconstruction.com
T:
F:



OIL CONDITION

Visc @ 100°C	cSt	13.0	12.6	13.6	13.6
Base Number (BN)	mg KOH/g	10.6	---	---	---
Oxidation (PA)	%	82	82	56	57

Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.4	0.2	0.3
Nitration (PA)	%	67	78	71	49
Sulfation (PA)	%	61	63	52	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	7	7	25
Sodium	ppm	3	4	3	3
Potassium	ppm	<1	2	3	3



WEAR METALS

Iron	ppm	52	30	11	41
Copper	ppm	2	4	5	8
Lead	ppm	0	<1	0	<1
Tin	ppm	<1	<1	2	1
Aluminum	ppm	▲ 16	▲ 15	6	26
Chromium	ppm	1	2	<1	4
Molybdenum	ppm	43	43	8	11
Nickel	ppm	0	<1	<1	10
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	4
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1747	1574	1341	2089
Magnesium	ppm	558	617	640	99
Zinc	ppm	1178	1095	758	997
Phosphorus	ppm	1005	941	696	878
Barium	ppm	0	0	0	0
Boron	ppm	39	48	60	2

Depot: RIPTAM
Unique No: 10861625
Signed: Sean Felton
Report Date: 07 Feb 2024



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS

