



CONSTRUCTION EQUIPMENT

VOLVO ECR145EL 314199 - DIESEL ENGINE



Sample No: VCP432324
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP432324	VCP329536	VCP293872	---
Sample Date	05 Feb 2024	22 Sep 2021	04 Dec 2020	---
Machine Hours	1932	960	449	---
Oil Hours	0	500	449	---
Oil Changed	N/A	Changed	Changed	---
Sample Status	NORMAL	ABNORMAL	NORMAL	---

RIPA AND ASSOCIATES

10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: ROBERT TURNER
 rturner@ripatampa.com



OIL CONDITION

Visc @ 100°C	cSt	12.6	11.7	12.6	---
Base Number (BN)	mg KOH/g	10.5	9.0	---	---
Oxidation (PA)	%	77	66	46	---

T:
F:

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.3	0.3	0.2	---
Nitration (PA)	%	69	84	65	---
Sulfation (PA)	%	59	58	50	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	3.1	5.6	<1.0	---
Silicon	ppm	10	8	17	---
Sodium	ppm	2	2	1	---
Potassium	ppm	3	2	4	---



WEAR METALS

Iron	ppm	68	31	62	---
Copper	ppm	2	3	19	---
Lead	ppm	<1	<1	<1	---
Tin	ppm	1	1	2	---
Aluminum	ppm	14	11	27	---
Chromium	ppm	2	2	5	---
Molybdenum	ppm	40	23	1	---
Nickel	ppm	1	2	10	---
Titanium	ppm	15	<1	0	---
Silver	ppm	0	<1	0	---
Manganese	ppm	1	1	4	---
Vanadium	ppm	<1	0	0	---



ADDITIVES

Calcium	ppm	1556	1568	2226	---
Magnesium	ppm	470	491	56	---
Zinc	ppm	1092	929	956	---
Phosphorus	ppm	912	842	892	---
Barium	ppm	1	0	0	---
Boron	ppm	50	92	3	---

Depot: RIPTAM
Unique No: 10900471
Signed: Jonathan Hester
Report Date: 05 Mar 2024



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GRAPHS

