



# CONSTRUCTION EQUIPMENT

SW1028548 LKQ VOLVO L90E 71073 - DIESEL ENGINE



**Sample No:** VCP437533  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** SW1028548 LKQ



## SAMPLE INFORMATION

Sample Number	VCP437533	VCP237017	---	---
Sample Date	09 Jan 2024	17 Apr 2019	---	---
Machine Hours	6986	4566	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	NORMAL	---	---

**ARNOLD MACHINERY COMPANY**  
4323 EAST WINSLOW AVENUE  
PHOENIX, AZ  
US 85040  
Contact: RANDY PRZEKURAT  
randyp@arnoldmachinery.com  
T:  
F: (602)414-1904



## OIL CONDITION

Visc @ 100°C	cSt	▲ 11.3	■ 13.2	---	---
Base Number (BN)	mg KOH/g	■ 8.8	---	---	---
Oxidation (PA)	%	81	78	---	---



## CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.7	■ 0.1	---	---
Nitration (PA)	%	73	45	---	---
Sulfation (PA)	%	61	60	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	◆ 14.8	<1.0	---	---
Silicon	ppm	■ 11	■ 12	---	---
Sodium	ppm	■ 3	■ 15	---	---
Potassium	ppm	■ 1	■ 0	---	---

## Diagnosis

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



## WEAR METALS

Iron	ppm	■ 21	■ 14	---	---
Copper	ppm	■ 2	■ 1	---	---
Lead	ppm	■ 2	■ 2	---	---
Tin	ppm	■ <1	■ 0	---	---
Aluminum	ppm	■ 2	■ 3	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 40	■ 33	---	---
Nickel	ppm	■ 0	■ <1	---	---
Titanium	ppm	■ <1	<1	---	---
Silver	ppm	■ 0	0	---	---
Manganese	ppm	■ <1	<1	---	---
Vanadium	ppm	<1	0	---	---



## ADDITIVES

Calcium	ppm	■ 1484	■ 1429	---	---
Magnesium	ppm	■ 521	■ 456	---	---
Zinc	ppm	■ 1096	■ 742	---	---
Phosphorus	ppm	■ 924	■ 610	---	---
Barium	ppm	■ <1	■ 0	---	---
Boron	ppm	■ 39	■ 52	---	---

**Depot:** VOLVO6174  
**Unique No:** 10836669  
**Signed:** Wes Davis  
**Report Date:** 23 Jan 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

