



# CONSTRUCTION EQUIPMENT

SWO-070808 H&E EQUIP JLG 10054 0160072740 - DIESEL ENGINE



**Sample No:** VCP436277  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** SWO-070808 H&E EQUIP



## SAMPLE INFORMATION

Sample Number	VCP436277	---	---	---
Sample Date	01 Apr 2024	---	---	---
Machine Hours	8	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	SEVERE	---	---	---

### COWIN EQUIPMENT COMPANY

2238 PINSON VALLEY PARKWAY  
 BIRMINGHAM, AL  
 US 35217  
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## OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	---	---	---
Base Number (BN)	mg KOH/g	█ 7.4	---	---	---
Oxidation (PA)	%	71	---	---	---

### Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. Piston, ring and cylinder wear is indicated. Metal levels appear high for a new component breaking in. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



## CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	98	---	---	---
Sulfation (PA)	%	63	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	▲ 261	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 13	---	---	---



## WEAR METALS

Iron	ppm	▲ 479	---	---	---
Copper	ppm	█ 15	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	● 73	---	---	---
Chromium	ppm	▲ 33	---	---	---
Molybdenum	ppm	█ 82	---	---	---
Nickel	ppm	█ 5	---	---	---
Titanium	ppm	█ 15	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 6	---	---	---
Vanadium	ppm	<1	---	---	---



## ADDITIVES

Calcium	ppm	█ 2087	---	---	---
Magnesium	ppm	█ 158	---	---	---
Zinc	ppm	█ 1146	---	---	---
Phosphorus	ppm	█ 983	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 104	---	---	---

**Depot:** VOLVO8528  
**Unique No:** 10963043  
**Signed:** Doug Bogart  
**Report Date:** 08 Apr 2024



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## GRAPHS

