



# CONSTRUCTION EQUIPMENT

## SW-2022-2 MAVERICK VOLVO L220H 3371 - DIESEL ENGINE



**Sample No:** VCP418718  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SW-2022-2 MAVERICK



### SAMPLE INFORMATION

Sample Number	VCP418718	---	---	---
Sample Date	11 Jul 2023	---	---	---
Machine Hours	2147	---	---	---
Oil Hours	600	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

**ARNOLD MACHINERY COMPANY**  
 2975 WEST 2100 SOUTH  
 SALT LAKE CITY, UT  
 US 84119  
 Contact: TONY PAYAN  
 tpayan@arnoldmachinery.com  
 T: (801)972-4000  
 F: (801)975-9434



### OIL CONDITION

Visc @ 100°C	cSt	█ 12.5	---	---	---
Base Number (BN)	mg KOH/g	█ 7.4	---	---	---
Oxidation (PA)	%	68	---	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). 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

Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	76	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 7	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 2	---	---	---



### WEAR METALS

Iron	ppm	█ 10	---	---	---
Copper	ppm	▲ 158	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ 1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 63	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	<1	---	---	---



### ADDITIVES

Calcium	ppm	█ 1382	---	---	---
Magnesium	ppm	813	---	---	---
Zinc	ppm	█ 1231	---	---	---
Phosphorus	ppm	█ 995	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 20	---	---	---

**Depot:** VOLVO8770  
**Unique No:** 10562276  
**Signed:** Don Baldrige  
**Report Date:** 19 Jul 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

