



# CONSTRUCTION EQUIPMENT

## 23846 VOLVO L350 1222 - DIESEL ENGINE



**Sample No:** VCP426923  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 23846



### SAMPLE INFORMATION

Sample Number	<b>VCP426923</b>	VCP407108	VCP423582	VCP426842
Sample Date	<b>25 Aug 2023</b>	24 May 2023	20 Apr 2023	24 Mar 2023
Machine Hours	<b>3525</b>	1980	1426	1038
Oil Hours	<b>1000</b>	1000	500	1000
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	ATTENTION	ABNORMAL	ABNORMAL

**218 - ASCENDUM MACHINERY INC - N. CHARLESTON**  
 7235 CROSS COUNTRY RD.  
 NORTH CHARLESTON, SC  
 US 29418  
 Contact: MATT MITCHAM  
 matt.mitcham@ascendummachinery.com  
 T:  
 F: (843)414-1129

### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.7</b>	▲ 10.8	■ 12.7	▲ 10.8
Base Number (BN)	mg KOH/g	■ <b>7.2</b>	■ 9.7	■ 8.7	■ 6.6
Oxidation (PA)	%	<b>80</b>	66	71	72

### CONTAMINATION

Soot %	%	■ <b>0.7</b>	■ 0.3	■ 0.2	■ 0.5
Nitration (PA)	%	<b>77</b>	54	50	75
Sulfation (PA)	%	<b>61</b>	58	55	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	■ 1.7	<1.0	■ 1.5
Silicon	ppm	■ <b>8</b>	■ 7	■ 5	▲ 21
Sodium	ppm	■ <b>3</b>	■ 1	■ 2	■ 3
Potassium	ppm	■ <b>29</b>	■ 6	■ 9	■ 16

### 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 copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### WEAR METALS

Iron	ppm	■ <b>16</b>	■ 8	■ 6	■ 28
Copper	ppm	▲ <b>18</b>	■ 13	▲ 80	▲ 285
Lead	ppm	■ <b>2</b>	■ <1	■ 0	■ 3
Tin	ppm	■ <b>2</b>	■ 2	■ <1	■ 6
Aluminum	ppm	■ <b>8</b>	■ 3	■ 3	▲ 5
Chromium	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	■ <b>37</b>	■ 26	■ 39	■ 68
Nickel	ppm	■ <b>3</b>	■ 2	■ <1	■ 5
Titanium	ppm	<b>&lt;1</b>	0	0	<1
Silver	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Manganese	ppm	■ <b>1</b>	■ <1	■ <1	■ 3
Vanadium	ppm	<b>&lt;1</b>	<1	0	<1

### ADDITIVES

Calcium	ppm	■ <b>1869</b>	■ 2368	■ 1713	■ 1867
Magnesium	ppm	■ <b>497</b>	■ 346	■ 528	■ 224
Zinc	ppm	■ <b>1119</b>	■ 1251	■ 1120	■ 1164
Phosphorus	ppm	■ <b>874</b>	■ 989	■ 913	■ 885
Barium	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Boron	ppm	■ <b>11</b>	■ 33	■ 55	■ 42

**Depot:** VOLVO3387  
**Unique No:** 10622170  
**Signed:** Sean Felton  
**Report Date:** 29 Aug 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

