



# CONSTRUCTION EQUIPMENT

## 660738 DIPRO VOLVO L220H 3352 - DIESEL ENGINE



**Sample No:** VCP452285  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 660738 DIPRO



### SAMPLE INFORMATION

Sample Number	<b>VCP452285</b>	VCP431398	VCP429350	VCP411735
Sample Date	<b>24 Jan 2024</b>	04 Dec 2023	03 Oct 2023	14 Aug 2023
Machine Hours	<b>8210</b>	7698	6960	6368
Oil Hours	<b>500</b>	0	500	500
Oil Changed	<b>Changed</b>	N/A	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY - METRO WEST**  
 56195 PONTIAC TRAIL  
 NEW HUDSON, MI  
 US 48165  
 Contact: PAUL CONZ  
 paul.conz@altg.com  
 T: (313)348-8861  
 F: (248)356-2029



### OIL CONDITION

Visc @ 100°C	cSt	<b>13.3</b>	13.1	13.5	14.1
Base Number (BN)	mg KOH/g	<b>9.1</b>	9.1	8.5	8.7
Oxidation (PA)	%	<b>57</b>	58	55	54

### Diagnosis

Resample at the next service interval to monitor. All 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 suitable for further service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>55</b>	59	56	48
Sulfation (PA)	%	<b>51</b>	52	51	50
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>2</b>	3	2	3
Sodium	ppm	<b>0</b>	0	1	2
Potassium	ppm	<b>2</b>	2	<1	4



### WEAR METALS

Iron	ppm	<b>3</b>	5	3	4
Copper	ppm	<b>&lt;1</b>	<1	<1	1
Lead	ppm	<b>0</b>	0	<1	<1
Tin	ppm	<b>0</b>	0	0	<1
Aluminum	ppm	<b>2</b>	1	8	<1
Chromium	ppm	<b>&lt;1</b>	<1	0	0
Molybdenum	ppm	<b>64</b>	60	59	59
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	0	<1
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1069</b>	1036	1313	1038
Magnesium	ppm	<b>1015</b>	878	801	989
Zinc	ppm	<b>1243</b>	1173	1341	1216
Phosphorus	ppm	<b>922</b>	985	1050	990
Barium	ppm	<b>5</b>	3	0	0
Boron	ppm	<b>&lt;1</b>	2	7	0

**Depot:** VOLVO2990  
**Unique No:** 10863271  
**Signed:** Don Baldrige  
**Report Date:** 07 Feb 2024



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## GRAPHS

