



# CONSTRUCTION EQUIPMENT

CITRUS CITY VOLVO L110H 632401 - DIESEL ENGINE



**Sample No:** VCP431748  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** CITRUS CITY



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## SAMPLE INFORMATION

Sample Number	<b>VCP431748</b>	VCP433370	VCP420930	VCP406827
Sample Date	<b>07 Feb 2024</b>	18 Oct 2023	26 Jul 2023	17 May 2023
Machine Hours	<b>3072</b>	2627	2194	1620
Oil Hours	<b>0</b>	500	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



## OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	12.9	13.1	12.8
Base Number (BN)	mg KOH/g	<b>10.5</b>	10.0	9.9	10.0
Oxidation (PA)	%	<b>79</b>	78	78	78



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.4	0.5	0.3
Nitration (PA)	%	<b>58</b>	58	59	58
Sulfation (PA)	%	<b>60</b>	60	59	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	5	6	6
Sodium	ppm	<b>0</b>	1	2	3
Potassium	ppm	<b>3</b>	3	2	1



## WEAR METALS

Iron	ppm	<b>10</b>	11	16	13
Copper	ppm	<b>3</b>	3	3	3
Lead	ppm	<b>&lt;1</b>	0	1	<1
Tin	ppm	<b>1</b>	<1	2	<1
Aluminum	ppm	<b>6</b>	6	8	6
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>36</b>	46	43	47
Nickel	ppm	<b>&lt;1</b>	0	<1	<1
Titanium	ppm	<b>&lt;1</b>	<1	<1	0
Silver	ppm	<b>0</b>	0	<1	<1
Manganese	ppm	<b>&lt;1</b>	0	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



## ADDITIVES

Calcium	ppm	<b>1761</b>	1607	1703	1653
Magnesium	ppm	<b>448</b>	485	530	546
Zinc	ppm	<b>1100</b>	1101	1190	1152
Phosphorus	ppm	<b>971</b>	923	969	947
Barium	ppm	<b>&lt;1</b>	7	0	0
Boron	ppm	<b>40</b>	38	30	39

## 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.

**Depot:** VOLVO0093  
**Unique No:** 10870763  
**Signed:** Wes Davis  
**Report Date:** 08 Feb 2024



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## GRAPHS

