



# CONSTRUCTION EQUIPMENT

8-371240 16-8113 - DIESEL ENGINE



**Sample No:** VCP391584  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 8-371240



## SAMPLE INFORMATION

Sample Number	<b>VCP391584</b>	VCP392084	VCP332580	VCP347145
Sample Date	<b>17 Jul 2023</b>	19 Apr 2023	01 Nov 2022	15 Aug 2022
Machine Hours	<b>6060</b>	5495	5013	4504
Oil Hours	<b>0</b>	0	1000	0
Oil Changed	<b>Changed</b>	Changed	N/A	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	ABNORMAL



### CRH CANADA GROUP INC.

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## OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.5</b>	■ 12.5	■ 12.2	<b>▲ 11.4</b>
Oxidation (PA)	%	<b>85</b>	82	88	90



## CONTAMINATION

Soot %	%	■ <b>0.1</b>	■ 0	■ 0	■ 0
Nitration (PA)	%	<b>65</b>	63	70	69
Sulfation (PA)	%	<b>65</b>	62	67	67
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	■ <b>2.3</b>	<1.0	■ 2	■ 1.9
Silicon	ppm	■ <b>10</b>	■ 6	■ 6	■ 8
Sodium	ppm	■ <b>3</b>	■ 2	■ 2	■ 3
Potassium	ppm	■ <b>3</b>	■ <1	■ 2	■ 1



## WEAR METALS

Iron	ppm	■ <b>19</b>	■ 7	■ 10	■ 13
Copper	ppm	■ <b>2</b>	■ 1	■ 2	■ 3
Lead	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Tin	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Aluminum	ppm	■ <b>4</b>	■ 2	■ 2	■ 3
Chromium	ppm	■ <b>&lt;1</b>	■ 0	■ 0	■ 0
Molybdenum	ppm	■ <b>35</b>	■ 40	■ 39	■ 38
Nickel	ppm	■ <b>2</b>	■ 1	■ 2	■ 1
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Manganese	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	■ <b>1496</b>	■ 1767	■ 1645	■ 1546
Magnesium	ppm	■ <b>443</b>	■ 484	■ 481	■ 451
Zinc	ppm	■ <b>955</b>	■ 1065	■ 1010	■ 947
Phosphorus	ppm	■ <b>878</b>	■ 993	■ 927	■ 819
Barium	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Boron	ppm	■ <b>25</b>	■ 35	■ 23	■ 22

## Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

**Depot:** HOLCON  
**Unique No:** 5615906  
**Signed:** Kevin Marson  
**Report Date:** 20 Jul 2023



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## GRAPHS

