



# CONSTRUCTION EQUIPMENT

## 19114 VOLVO L90H 624539 - DIESEL ENGINE



**Sample No:** VCP425388  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 19114



### SAMPLE INFORMATION

Sample Number	<b>VCP425388</b>	VCP403910	VCP378312	VCP329568
Sample Date	<b>06 Jul 2023</b>	28 Feb 2023	27 May 2022	15 Mar 2022
Machine Hours	<b>8365</b>	7761	6558	6012
Oil Hours	<b>0</b>	450	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



**IAA - INSURANCE AUTO AUCTIONS - CLAYTON**  
 60 SADISCO RD  
 CLAYTON, NC  
 US 27520  
 Contact: Service Manager



### OIL CONDITION

Visc @ 100°C	cSt	<b>14.7</b>	14.9	13.8	13.9
Base Number (BN)	mg KOH/g	<b>9.4</b>	9.2	10.8	11.4
Oxidation (PA)	%	<b>73</b>	66	90	93

T:  
F:



### CONTAMINATION

Soot %	%	<b>0.7</b>	0.5	0.6	0.6
Nitration (PA)	%	<b>83</b>	73	77	75
Sulfation (PA)	%	<b>60</b>	55	66	70
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	4	6	6
Sodium	ppm	<b>3</b>	2	3	3
Potassium	ppm	<b>9</b>	2	0	0

### 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.



### WEAR METALS

Iron	ppm	<b>11</b>	10	11	13
Copper	ppm	<b>&lt;1</b>	<1	<1	<1
Lead	ppm	<b>&lt;1</b>	<1	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>4</b>	6	3	3
Chromium	ppm	<b>&lt;1</b>	1	<1	<1
Molybdenum	ppm	<b>64</b>	63	46	41
Nickel	ppm	<b>&lt;1</b>	0	0	0
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	<1	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1226</b>	1240	1745	1813
Magnesium	ppm	<b>911</b>	926	540	588
Zinc	ppm	<b>1291</b>	1255	1138	1157
Phosphorus	ppm	<b>1087</b>	1039	925	1015
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>7</b>	6	33	36

**Depot:** INSCLA  
**Unique No:** 10552493  
**Signed:** Don Baldrige  
**Report Date:** 14 Jul 2023



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## GRAPHS

