



# CONSTRUCTION EQUIPMENT

674383 VOLVO L220H 3368 - DIESEL ENGINE



**Sample No:** VCP445981  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 674383



**BLUE GOOSE GROWERS**  
 16059 W ORANGE AVE  
 FT PIERCE, FL  
 US 34945  
 Contact: SERVICE MANAGER

T: (772)461-3020  
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## SAMPLE INFORMATION

Sample Number	VCP445981	VCP432381	VCP415547	VCP369990
Sample Date	14 Feb 2024	12 Dec 2023	18 Jul 2023	13 Oct 2022
Machine Hours	5101	4672	3780	2139
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

## OIL CONDITION

Visc @ 100°C	cSt	12.7	12.9	12.9	13.2
Base Number (BN)	mg KOH/g	9.8	8.7	9.2	11.3
Oxidation (PA)	%	80	85	81	89

## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.3	0.3	0.2
Nitration (PA)	%	58	75	68	69
Sulfation (PA)	%	60	61	61	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	5	5	5
Sodium	ppm	<1	2	3	2
Potassium	ppm	2	2	0	0

## WEAR METALS

Iron	ppm	4	5	6	4
Copper	ppm	1	2	1	2
Lead	ppm	0	0	0	0
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	<1	<1	<1
Chromium	ppm	<1	<1	0	2
Molybdenum	ppm	39	39	46	42
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	0	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	<1	<1

## ADDITIVES

Calcium	ppm	1455	1703	1785	1652
Magnesium	ppm	480	508	580	530
Zinc	ppm	1026	1145	1171	1129
Phosphorus	ppm	919	901	983	892
Barium	ppm	10	0	0	0
Boron	ppm	31	17	26	23

## 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:** BLUFOR  
**Unique No:** 10885602  
**Signed:** Wes Davis  
**Report Date:** 20 Feb 2024



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## GRAPHS

