



# CONSTRUCTION EQUIPMENT

GFL 8-393399 VOLVO EC220E 310830 - DIESEL ENGINE



**Sample No:** VCP449283  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 8-393399



## SAMPLE INFORMATION

Sample Number	<b>VCP449283</b>	VCP221741	VCP380381	VCP380937
Sample Date	<b>02 Feb 2024</b>	15 Nov 2023	21 Jul 2023	02 Jun 2023
Machine Hours	<b>6000</b>	5815	5524	5397
Oil Hours	<b>2000</b>	290	0	400
Oil Changed	<b>Changed</b>	Not Chngd	Changed	Changed
Sample Status	<b>NORMAL</b>	ABNORMAL	ABNORMAL	ABNORMAL

### STRONGCO EQUIPMENT INC.

1640 ENTERPRISE ROAD  
 MISSISSAUGA, ON  
 CA L4W 4L4

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## OIL CONDITION

Visc @ 40°C	cSt	---	---	---	▲ 55.1
Visc @ 100°C	cSt	■ 12.5	▲ 9.8	▲ 9.7	▲ 8.9
Viscosity Index (VI)	Scale	---	---	---	■ 139
Oxidation (PA)	%	<b>80</b>	81	71	67

### 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. The condition of the oil is acceptable for the time in service.



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	■ 0	■ 0	■ 0	■ 0
Nitration (PA)	%	<b>48</b>	49	44	46
Sulfation (PA)	%	<b>63</b>	69	62	59
Glycol	%	<b>NEG</b>	■ 0.0	NEG	NEG
Fuel	%	■ 1.1	■ 1.1	■ 1	■ 0.8
Silicon	ppm	■ 7	■ 8	■ 5	■ 7
Sodium	ppm	■ 2	■ 2	■ 2	■ 2
Potassium	ppm	■ <1	■ <1	■ <1	■ 0



## WEAR METALS

Iron	ppm	■ 6	■ 9	■ 6	■ 8
Copper	ppm	■ <1	■ 4	■ 6	■ 7
Lead	ppm	■ <1	■ <1	■ <1	■ <1
Tin	ppm	■ 0	■ 0	■ 0	■ <1
Aluminum	ppm	■ 2	■ 4	■ 2	■ 3
Chromium	ppm	■ 0	■ 1	■ 2	■ 2
Molybdenum	ppm	■ 38	■ 23	■ 25	■ 20
Nickel	ppm	■ <1	■ <1	■ 0	■ <1
Titanium	ppm	0	0	0	<1
Silver	ppm	■ 0	■ <1	■ 0	■ 0
Manganese	ppm	■ 0	■ 0	■ <1	■ <1
Vanadium	ppm	0	0	0	0



## ADDITIVES

Calcium	ppm	■ 1683	971	1016	905
Magnesium	ppm	■ 483	■ 281	■ 313	■ 255
Zinc	ppm	■ 1011	805	813	752
Phosphorus	ppm	■ 904	663	■ 730	673
Barium	ppm	■ 0	■ <1	■ 0	■ 0
Boron	ppm	■ 49	■ 17	■ 23	■ 16

**Depot:** SHEMIS  
**Unique No:** 5724082  
**Signed:** Wes Davis  
**Report Date:** 13 Feb 2024



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## VOLVO GRAPHS

