



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**VOLVO A30G 753363**

Component  
**Diesel Engine**

Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP430273	VCP408521	---
Sample Date		Client Info		02 Nov 2023	02 Jun 2023	---
Machine Age	hrs	Client Info		751	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	17	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>2	<1	1	---
Aluminum	ppm	ASTM D5185m	>25	1	<1	---
Lead	ppm	ASTM D5185m	>40	0	<1	---
Copper	ppm	ASTM D5185m	>330	25	▲ 96	---
Tin	ppm	ASTM D5185m	>15	2	2	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

There is no indication of any contamination in the oil.

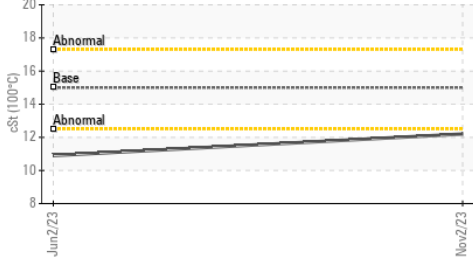
Silicon	ppm	ASTM D5185m	>25	10	▲ 40	---
Potassium	ppm	ASTM D5185m	>20	0	4	---
Fuel	%	ASTM D3524	>6.0	<1.0	1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	7.4	8.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	18.8	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

### FLUID CONDITION

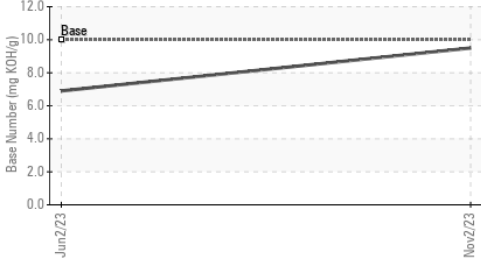
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	0	---
Boron	ppm	ASTM D5185m	2.5	51	65	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	50	82	---
Manganese	ppm	ASTM D5185m	0.0	1	4	---
Magnesium	ppm	ASTM D5185m	256	452	49	---
Calcium	ppm	ASTM D5185m	2057	1700	2122	---
Phosphorus	ppm	ASTM D5185m	935	949	972	---
Zinc	ppm	ASTM D5185m	1223	1118	1140	---
Sulfur	ppm	ASTM D5185m	4079	3072	3937	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	13.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.5	6.9	---
Visc @ 100°C	cSt	ASTM D445	15.0	▲ 12.2	▲ 10.9	---

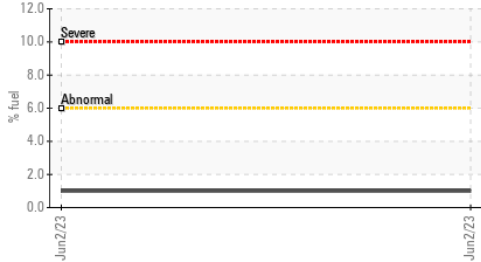
▲ Viscosity @ 100°C



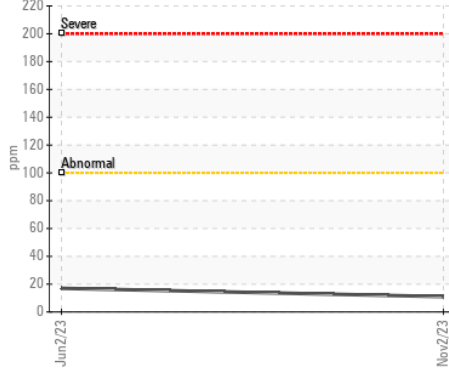
Base Number



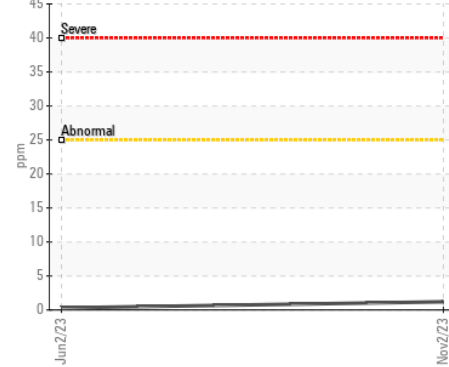
Fuel Dilution



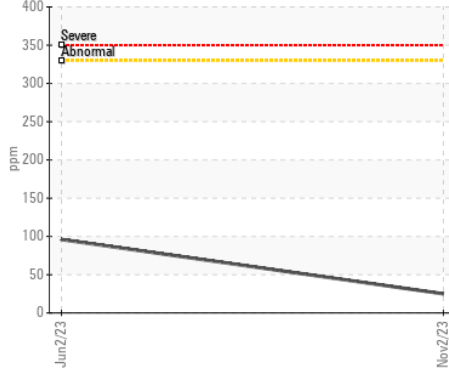
Iron (ppm)



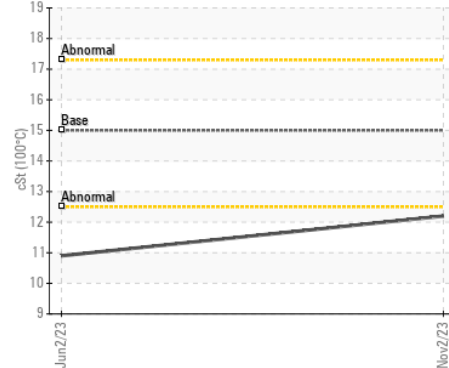
Aluminum (ppm)



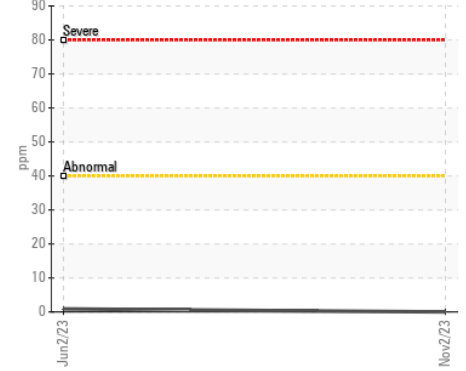
Copper (ppm)



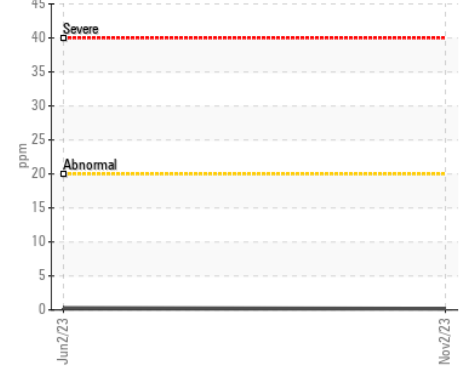
▲ Viscosity @ 100°C



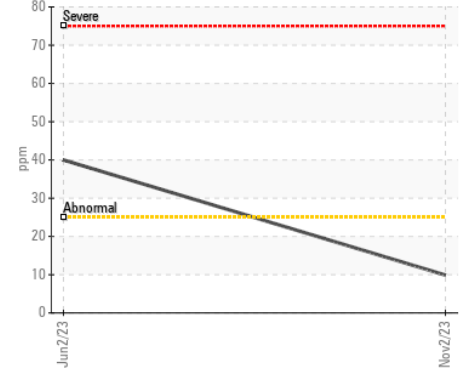
Lead (ppm)



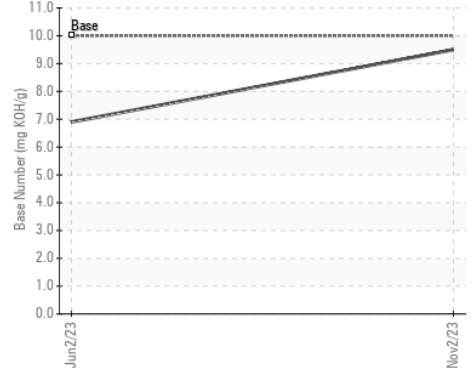
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP430273 **Received** : 09 Feb 2024  
**Lab Number** : 06084442 **Tested** : 12 Feb 2024  
**Unique Number** : 10871887 **Diagnosed** : 12 Feb 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, TBN )

**COWIN EQUIPMENT COMPANY**  
 P.O. DRAWER 9367  
 MONTGOMERY, AL  
 US 36108  
 Contact: BRYAN DICKS  
 bdicks@cowin.com  
 T: (334)262-6642  
 F: (334)269-1514

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)