



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area

[41829]

Machine Id

**VOLVO A40G 352361**

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		VCP454618	VCP367558	VCP295562
Sample Date		Client Info		12 Apr 2024	11 Nov 2022	01 Dec 2020
Machine Age	hrs	Client Info		3829	3140	899
Oil Age	hrs	Client Info		0	1000	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	8	9
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	1	4
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	0
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	7	9	14
Tin	ppm	ASTM D5185m	>15	1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

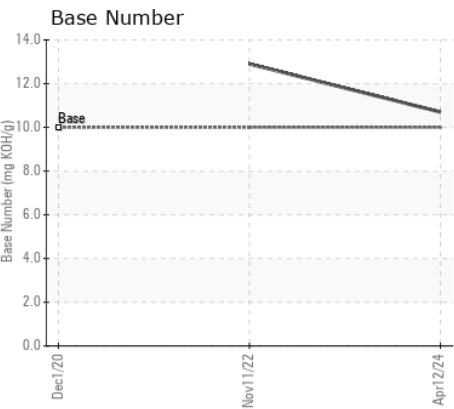
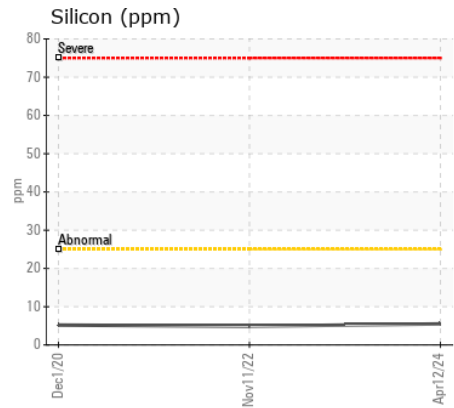
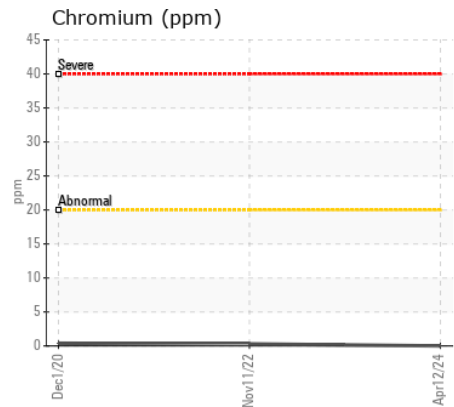
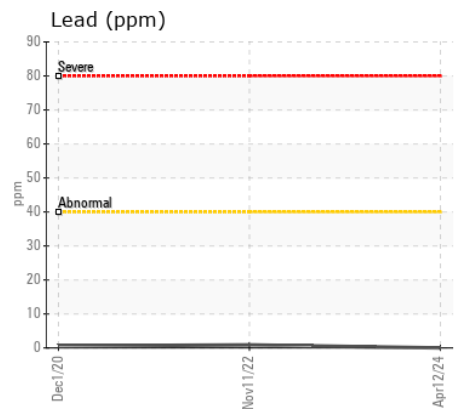
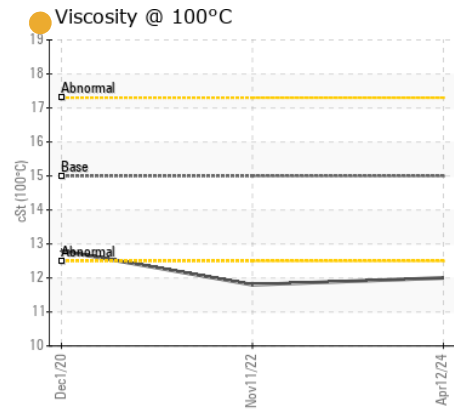
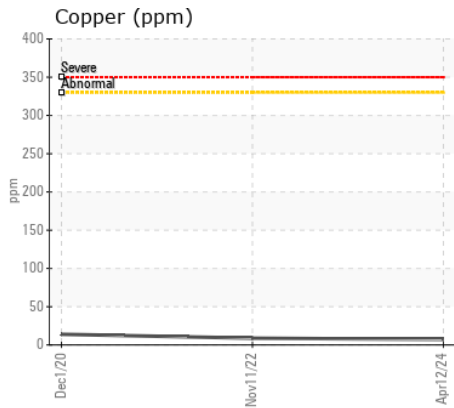
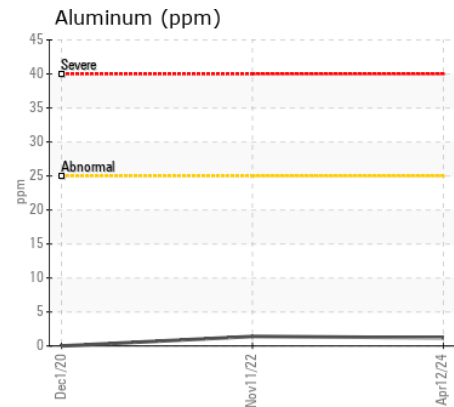
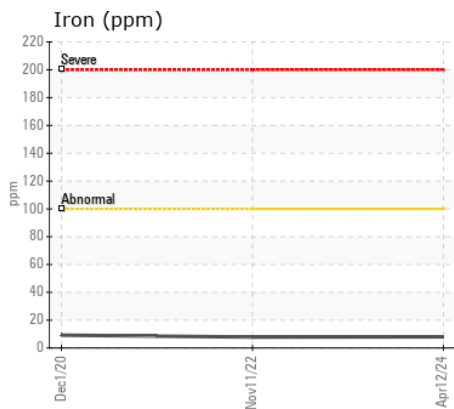
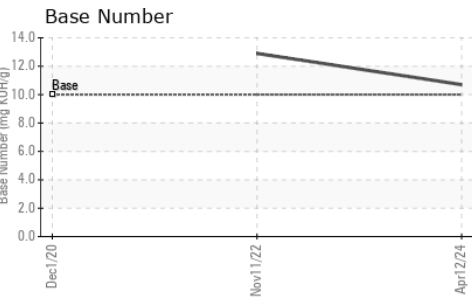
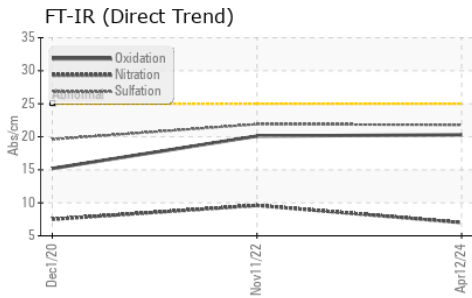
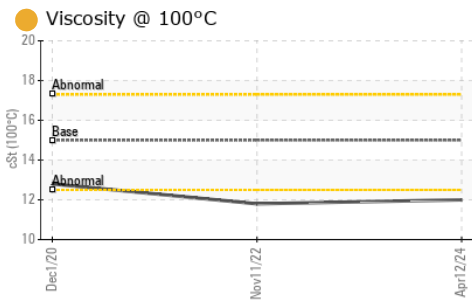
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	5	5
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Fuel		WC Method	>6.0	<1.0	0.8	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	9.6	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	21.9	19.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		6	3	0
Boron	ppm	ASTM D5185m	2.5	54	49	7
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	41	45	57
Manganese	ppm	ASTM D5185m	0.0	<1	<1	1
Magnesium	ppm	ASTM D5185m	256	455	502	867
Calcium	ppm	ASTM D5185m	2057	1632	1699	1172
Phosphorus	ppm	ASTM D5185m	935	847	919	1053
Zinc	ppm	ASTM D5185m	1223	994	1138	1147
Sulfur	ppm	ASTM D5185m	4079	3260	3409	2776
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	20.1	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.7	12.9	---
Visc @ 100°C	cSt	ASTM D445	15.0	12.0	11.8	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP454618 **Received** : 16 Apr 2024  
**Lab Number** : 06150144 **Tested** : 17 Apr 2024  
**Unique Number** : 10980222 **Diagnosed** : 18 Apr 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**BALFOUR BEATTY INFRASTRUCTURE INC**  
 6701 OLD PLANK RD  
 PARKTON, NC  
 US 28371  
 Contact: Service Manager

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)

T:  
F: