



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[SWO-069272]**  
Machine Id  
**VOLVO A45G 352071**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP435598</b>	VCP427485	VCP412987
Sample Date		Client Info		<b>29 Jan 2024</b>	09 Oct 2023	12 Jul 2023
Machine Age	hrs	Client Info		<b>7545</b>	7028	6523
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>&lt;1</b>	2	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>1</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

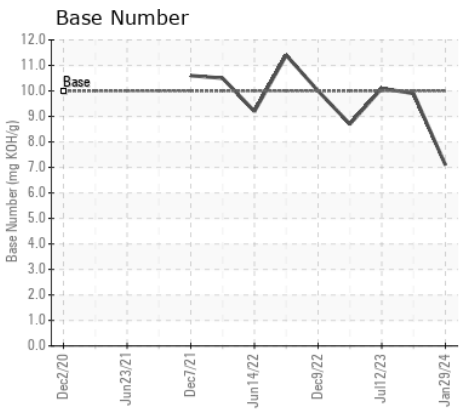
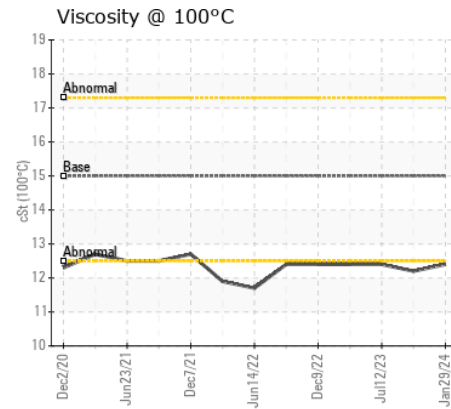
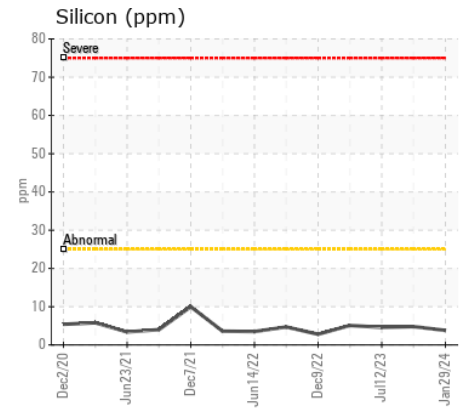
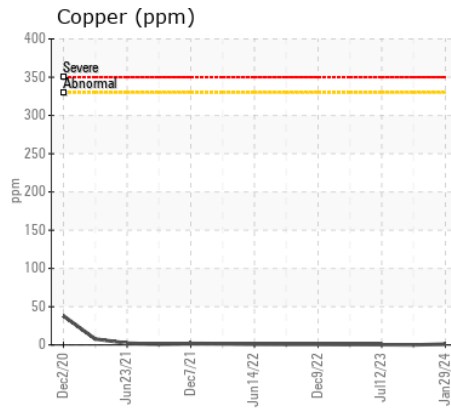
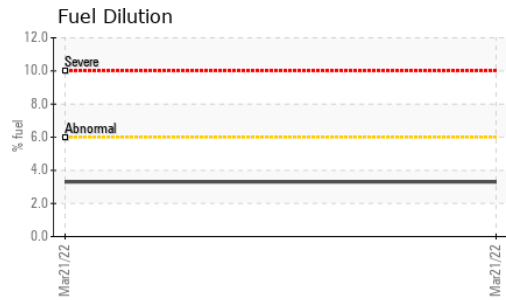
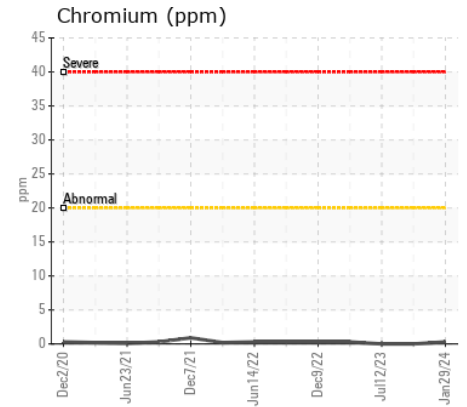
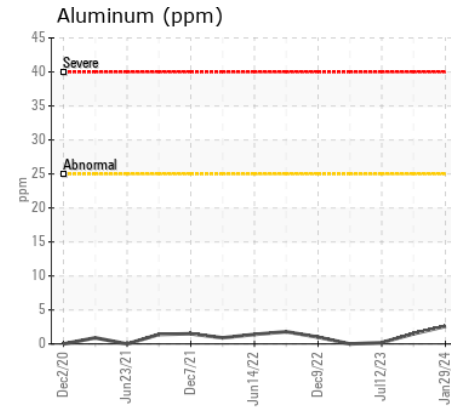
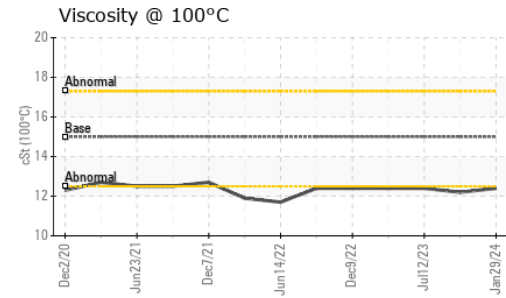
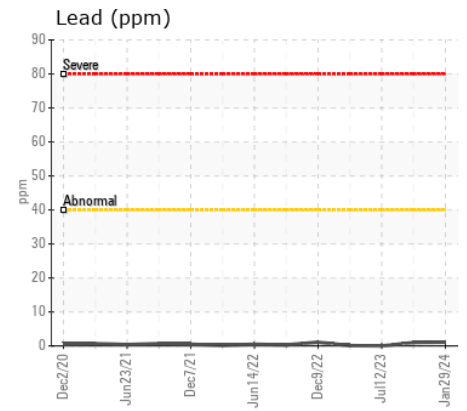
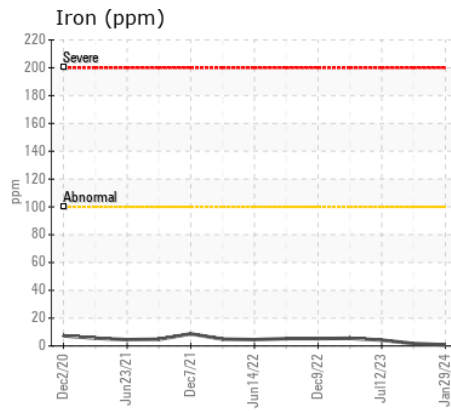
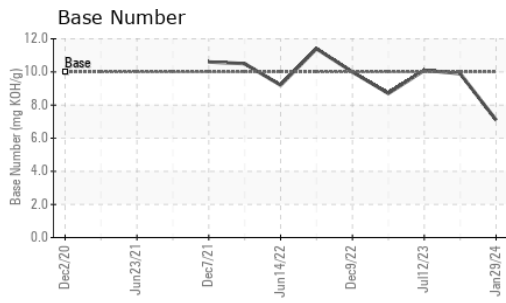
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Fuel	%	ASTM D3524	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	6.4	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.5</b>	21.2	21.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	2	3
Boron	ppm	ASTM D5185m	2.5	<b>102</b>	50	70
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>92</b>	42	41
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>588</b>	506	539
Calcium	ppm	ASTM D5185m	2057	<b>1200</b>	1663	1802
Phosphorus	ppm	ASTM D5185m	935	<b>691</b>	794	964
Zinc	ppm	ASTM D5185m	1223	<b>816</b>	959	1139
Sulfur	ppm	ASTM D5185m	4079	<b>2850</b>	2705	3581
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	19.1	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>7.1</b>	9.9	10.1
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.4</b>	▲ 12.2	▲ 12.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP435598 **Received** : 01 Feb 2024  
**Lab Number** : 06076477 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10858568 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, TBN )

**SAIIA CONSTRUCTION LLC**  
 4400 LEWISBURG RD  
 BIRMINGHAM, AL  
 US 35207

Contact: STEPHANI BRITTON  
 sbritton@saiia.com; doug.bogart@wearcheck.com  
 T: (205)943-2268  
 F: (205)943-2269

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)