



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**[SWA473401-1 ALTER BA]**  
 Machine Id  
**SENNEBOGEN 830 830.0.3516**  
 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		VCP434993	VCP434960	---
Sample Date		Client Info		12 Apr 2024	04 Dec 2023	---
Machine Age	hrs	Client Info		2053	1514	---
Oil Age	hrs	Client Info		500	500	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	13	9	---
Chromium	ppm	ASTM D5185m	>20	1	<1	---
Nickel	ppm	ASTM D5185m	>4	1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	1	1	---
Lead	ppm	ASTM D5185m	>40	1	0	---
Copper	ppm	ASTM D5185m	>330	1	<1	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

## CONTAMINATION

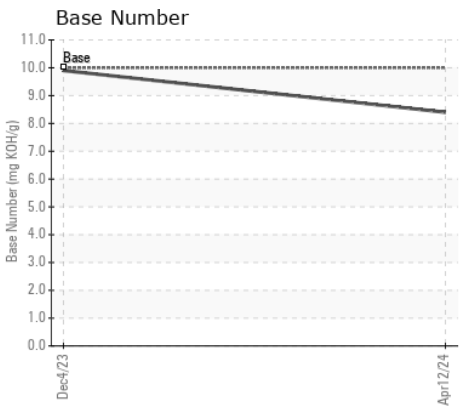
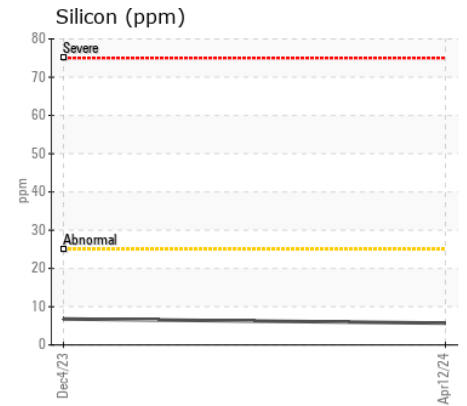
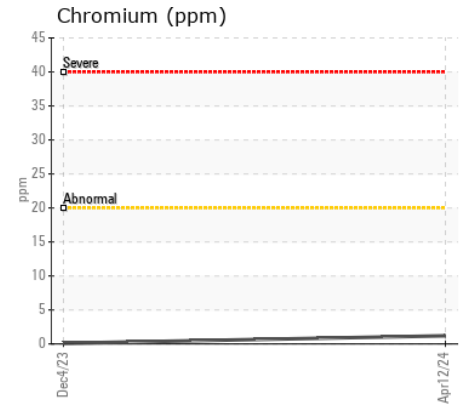
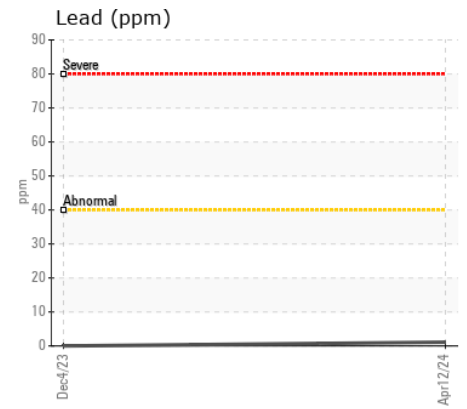
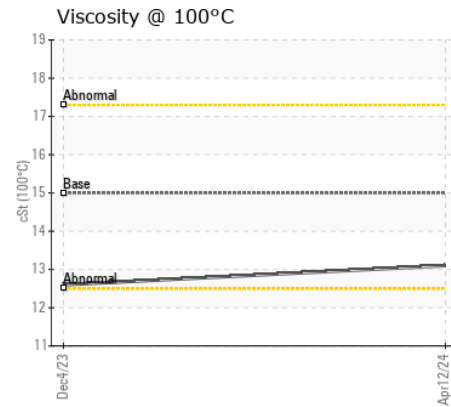
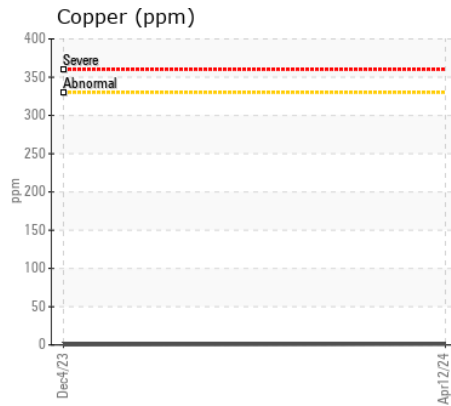
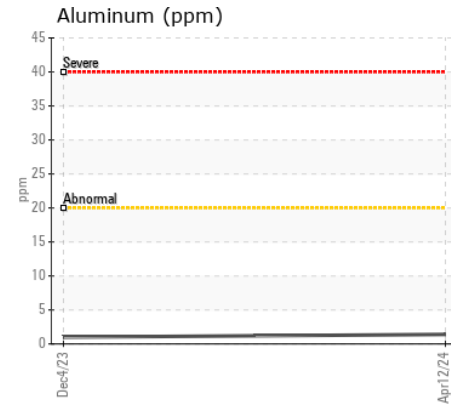
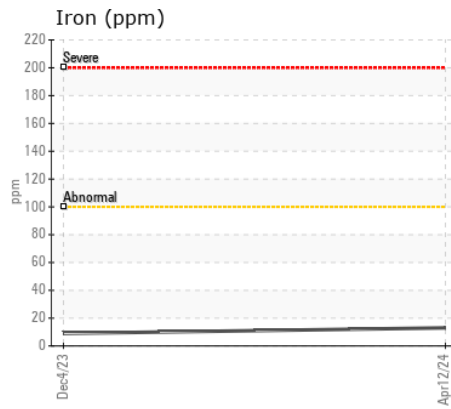
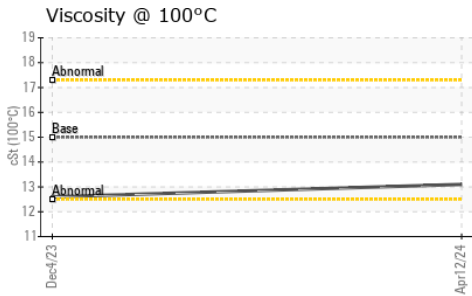
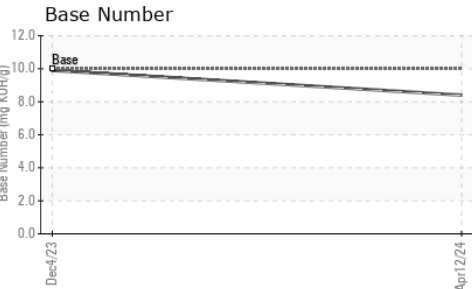
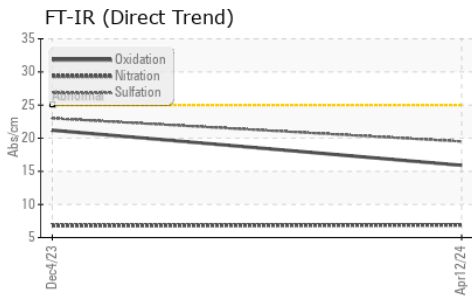
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	---
Potassium	ppm	ASTM D5185m	>20	1	<1	---
Fuel		WC Method	>5	<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	6.9	6.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	23.0	---
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	3	---
Boron	ppm	ASTM D5185m	2.5	3	55	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	55	38	---
Manganese	ppm	ASTM D5185m	0.0	1	<1	---
Magnesium	ppm	ASTM D5185m	256	842	488	---
Calcium	ppm	ASTM D5185m	2057	1039	1581	---
Phosphorus	ppm	ASTM D5185m	935	996	905	---
Zinc	ppm	ASTM D5185m	1223	1127	1084	---
Sulfur	ppm	ASTM D5185m	4079	3074	2673	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	21.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.4	9.9	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	12.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP434993 **Received** : 18 Apr 2024  
**Lab Number** : 06152854 **Tested** : 19 Apr 2024  
**Unique Number** : 10982932 **Diagnosed** : 22 Apr 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)