



# VOLVO

## OIL ANALYSIS REPORT

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

Area

[673135]

Machine Id

SENNEBOGEN 840 840.0.2369

Component

Diesel Engine

Fluid

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

### RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP445839	VCP424040	VCP408794
Sample Date		Client Info		10 Feb 2024	10 Aug 2023	18 May 2023
Machine Age	hrs	Client Info		2322	1119	534
Oil Age	hrs	Client Info		500	500	534
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	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	13	26
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	3
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	8	8
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	2	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

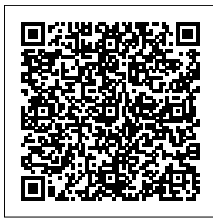
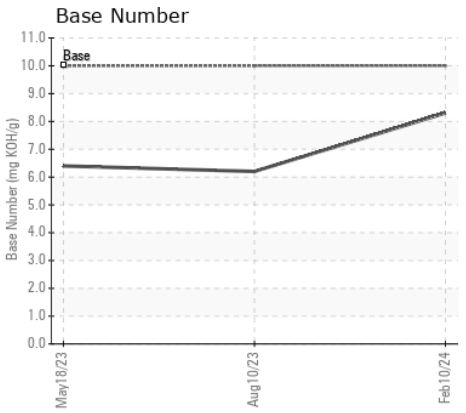
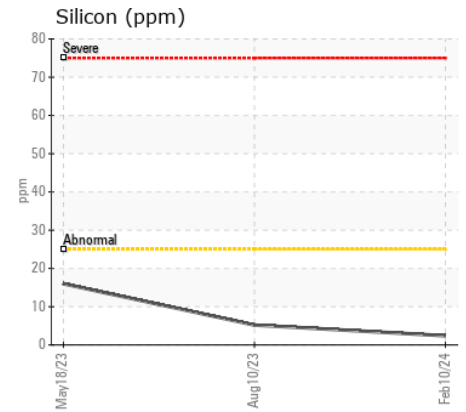
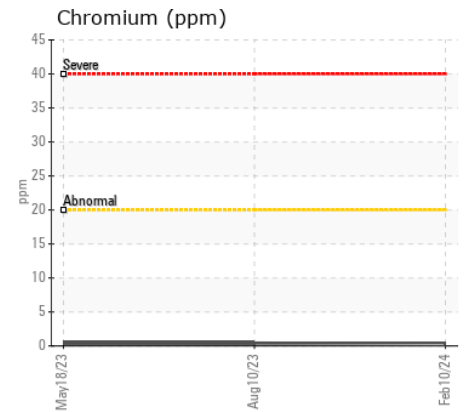
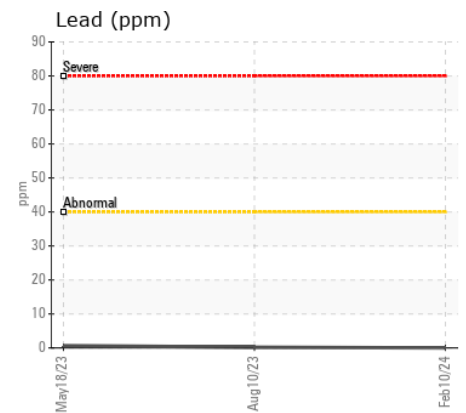
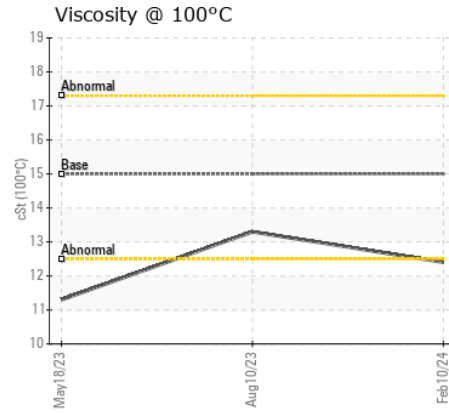
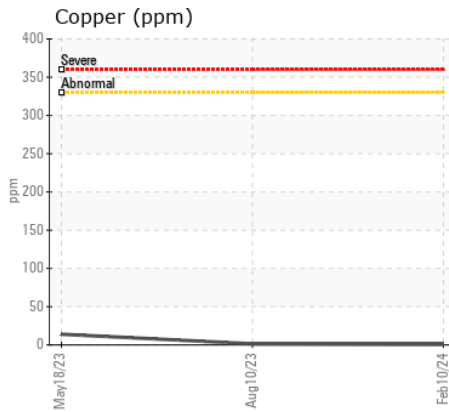
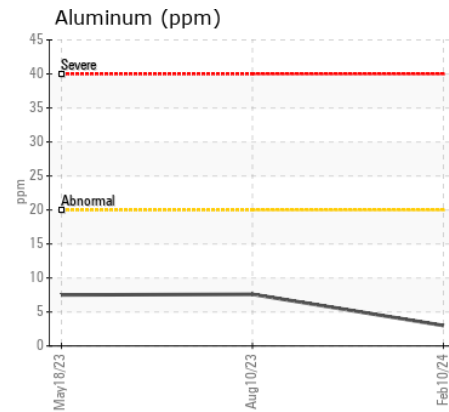
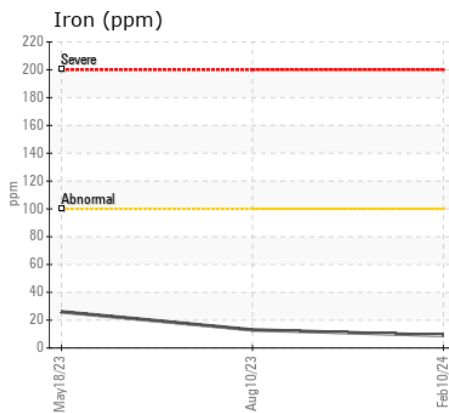
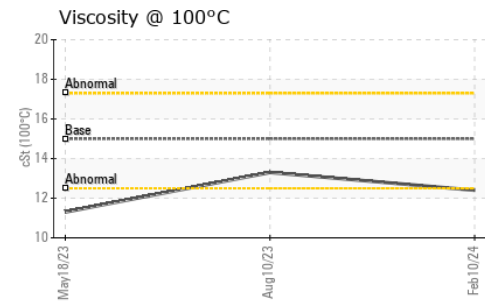
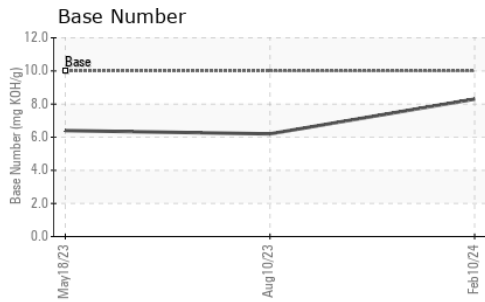
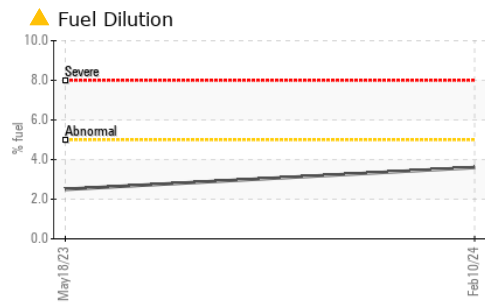
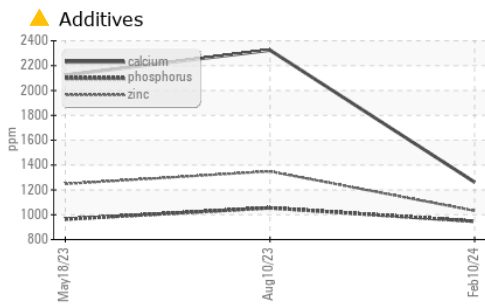
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	2	5	16
Potassium	ppm	ASTM D5185m	>20	2	19	24
Fuel	%	ASTM D3524	>5	▲ 3.6	<1.0	▲ 2.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.1	10.9	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	21.3	20.5
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

Additive levels indicate the addition of a different brand, or type of oil. 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		2	2	8
Boron	ppm	ASTM D5185m	2.5	11	34	40
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	60	90	79
Manganese	ppm	ASTM D5185m	0.0	<1	<1	5
Magnesium	ppm	ASTM D5185m	256	▲ 719	46	147
Calcium	ppm	ASTM D5185m	2057	▲ 1262	2325	2124
Phosphorus	ppm	ASTM D5185m	935	947	1055	964
Zinc	ppm	ASTM D5185m	1223	1032	1349	1248
Sulfur	ppm	ASTM D5185m	4079	2785	4448	4098
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	18.1	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.3	6.2	6.4
Visc @ 100°C	cSt	ASTM D445	15.0	12.4	13.3	▲ 11.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP445839 **Received** : 23 Feb 2024  
**Lab Number** : 06098225 **Tested** : 27 Feb 2024  
**Unique Number** : 10896455 **Diagnosed** : 27 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

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Certificate L2367  
 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)