



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[24745]
Machine Id
VOLVO EC300E 311876
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		VCP440962	VCP416524	VCP388293
Sample Date		Client Info		05 Jan 2024	20 Jun 2023	13 Dec 2022
Machine Age	hrs	Client Info		6600	6086	5659
Oil Age	hrs	Client Info		0	0	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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	7	9
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	1
Aluminum	ppm	ASTM D5185m	>10	4	2	5
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>15	2	2	2
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

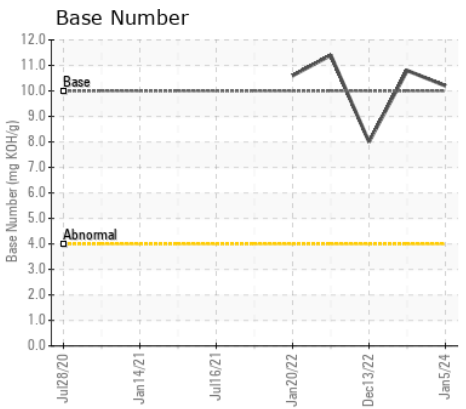
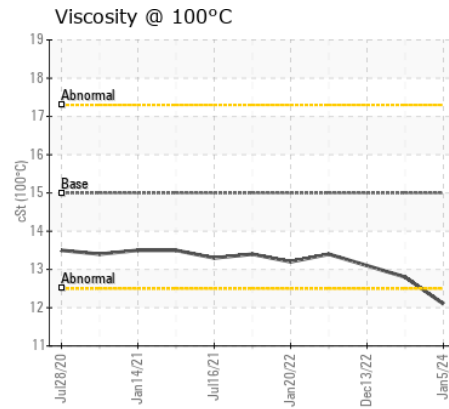
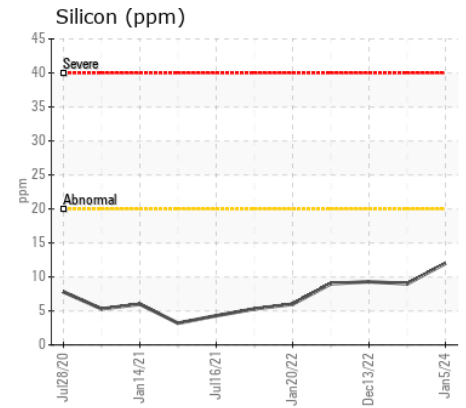
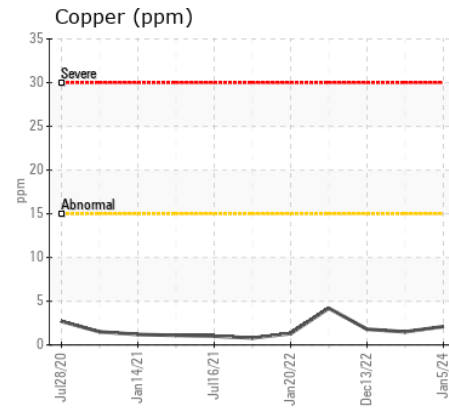
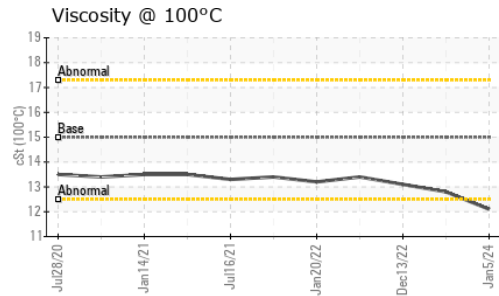
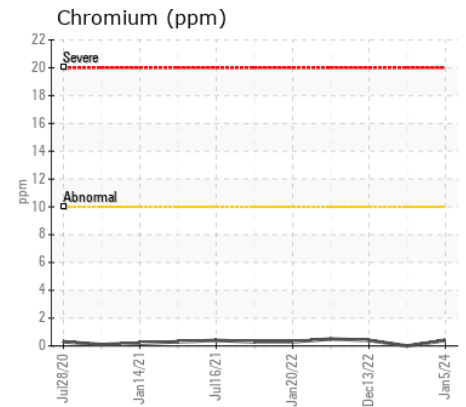
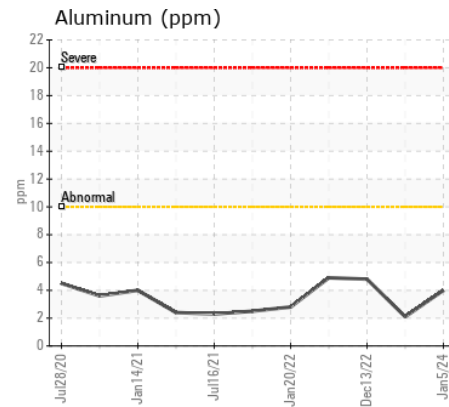
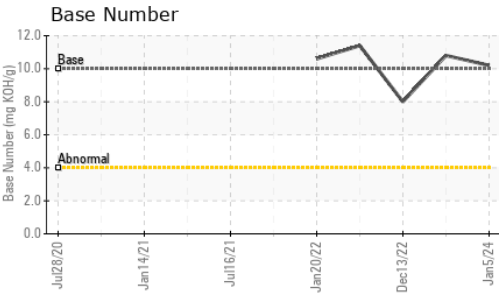
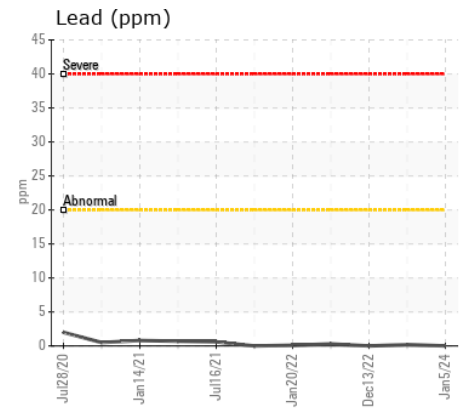
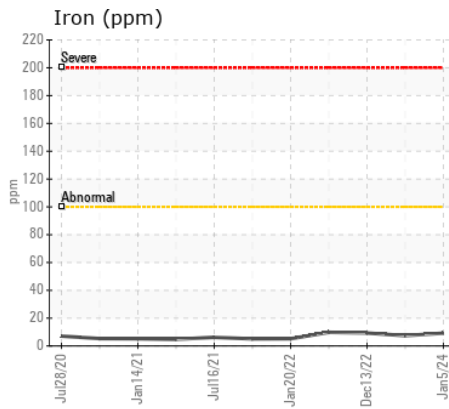
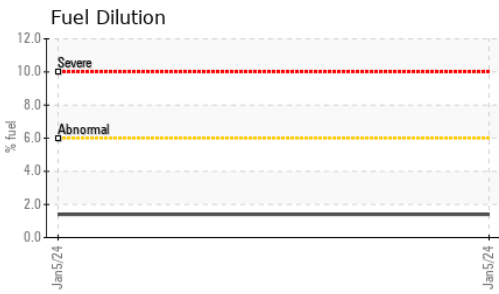
Fuel content negligible. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>20	12	9	9
Potassium	ppm	ASTM D5185m	>20	<1	3	5
Fuel	%	ASTM D3524	>6.0	1.4	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.8	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	22.3	22.9
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		2	0	0
Boron	ppm	ASTM D5185m	2.5	45	61	41
Barium	ppm	ASTM D5185m	0.0	0	0	<1
Molybdenum	ppm	ASTM D5185m	0.7	50	45	43
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	536	496	503
Calcium	ppm	ASTM D5185m	2057	1679	1715	1787
Phosphorus	ppm	ASTM D5185m	935	957	941	935
Zinc	ppm	ASTM D5185m	1223	1152	1101	1118
Sulfur	ppm	ASTM D5185m	4079	2993	3097	3371
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	20.7	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.2	10.8	8.0
Visc @ 100°C	cSt	ASTM D445	15.0	12.1	12.8	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP440962 **Received** : 19 Jan 2024
Lab Number : 06065463 **Diagnosed** : 23 Jan 2024
Unique Number : 10836845 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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)