



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

Area

**FLEET**

Machine Id

**VOLVO 2227087 (S/N 4V4NC9EH8RN643765)**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 30 (42 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0124530</b>	PCA0118722	PCA0108204
Sample Date		Client Info		<b>16 May 2024</b>	26 Feb 2024	13 Dec 2023
Machine Age	mls	Client Info		<b>59985</b>	39500	21064
Oil Age	mls	Client Info		<b>41549</b>	18436	21064
Filter Age	mls	Client Info		<b>20485</b>	18436	21064
Oil Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>29</b>	15	27
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>5</b>	2	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>2</b>	4	19
Aluminum	ppm	ASTM D5185m	>25	<b>11</b>	9	30
Lead	ppm	ASTM D5185m	>40	<b>1</b>	4	0
Copper	ppm	ASTM D5185m	>330	<b>230</b>	▲ 357	112
Tin	ppm	ASTM D5185m	>15	<b>3</b>	<1	4
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**

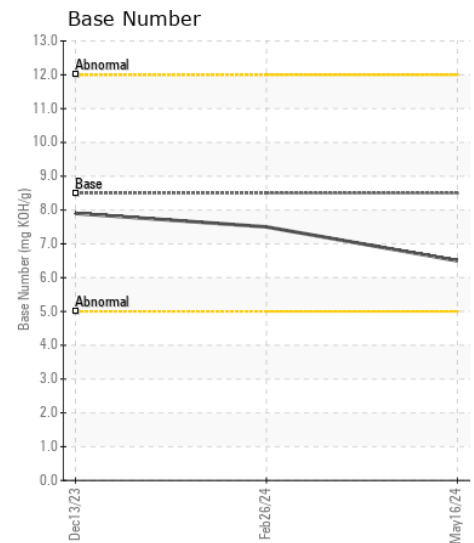
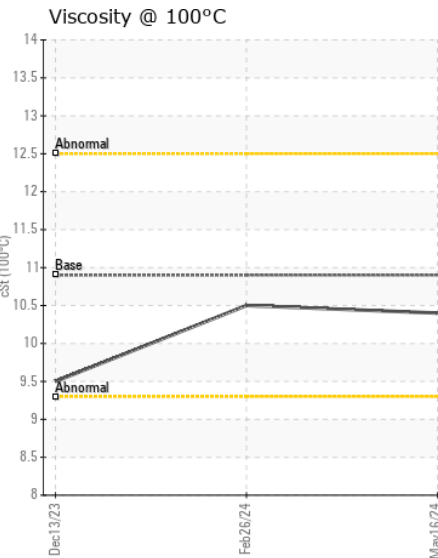
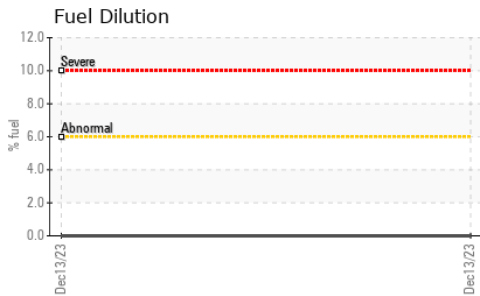
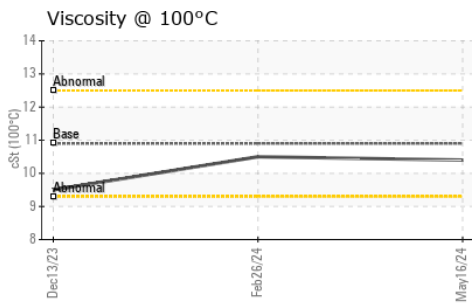
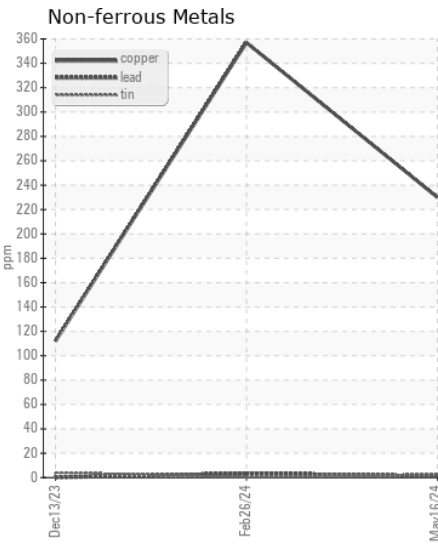
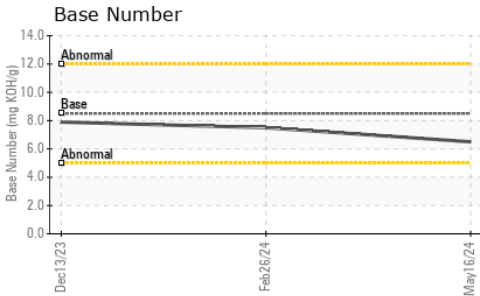
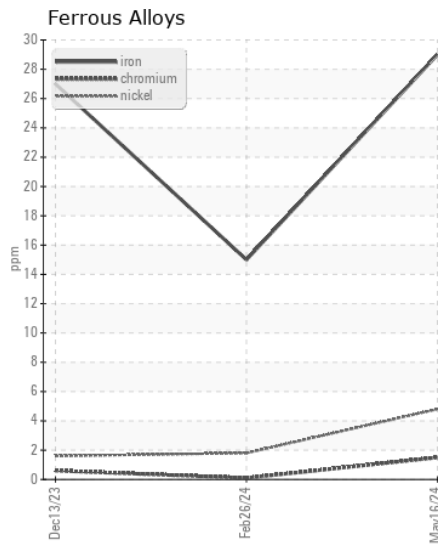
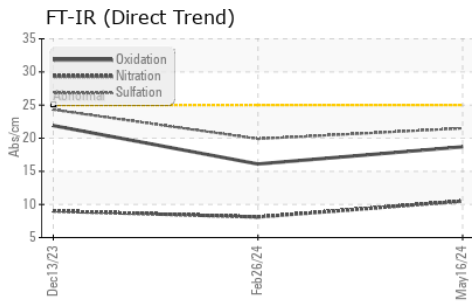
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>15</b>	13	▲ 57
Potassium	ppm	ASTM D5185m	>20	<b>34</b>	21	83
Fuel	%	ASTM D3524	>6.0	<b>&lt;1.0</b>	<1.0	0.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	8.1	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	19.9	24.3
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	>75	<b>3</b>	3	4
Boron	ppm	ASTM D5185m	250	<b>8</b>	16	213
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	100	<b>69</b>	68	115
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	3
Magnesium	ppm	ASTM D5185m	450	<b>961</b>	1044	703
Calcium	ppm	ASTM D5185m	3000	<b>1199</b>	1215	1329
Phosphorus	ppm	ASTM D5185m	1150	<b>965</b>	1040	716
Zinc	ppm	ASTM D5185m	1350	<b>1223</b>	1279	835
Sulfur	ppm	ASTM D5185m	4250	<b>2558</b>	2937	2305
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.7</b>	16.1	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.5</b>	7.5	7.9
Visc @ 100°C	cSt	ASTM D445	10.9	<b>10.4</b>	10.5	9.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0124530 **Received** : 23 May 2024  
**Lab Number** : 06188776 **Tested** : 24 May 2024  
**Unique Number** : 11045528 **Diagnosed** : 24 May 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

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)

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