



# ASCENDUM

## OIL ANALYSIS REPORT

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



Area  
**Ascendum Machinery**  
Machine Id  
**VOLVO EC200E 314279**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0007630</b>	VCP0006670	VCP334910
Sample Date		Client Info		<b>28 Feb 2024</b>	10 Apr 2023	22 Jul 2021
Machine Age	hrs	Client Info		<b>962</b>	687	237
Oil Age	hrs	Client Info		<b>275</b>	450	0
Filter Age	hrs	Client Info		<b>275</b>	450	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	MARGINAL	NORMAL

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	33	38
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	5	4
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>12</b>	22	21
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>15	<b>3</b>	6	14
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

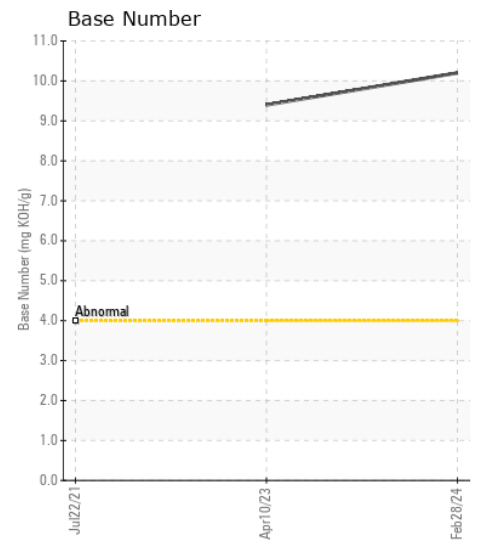
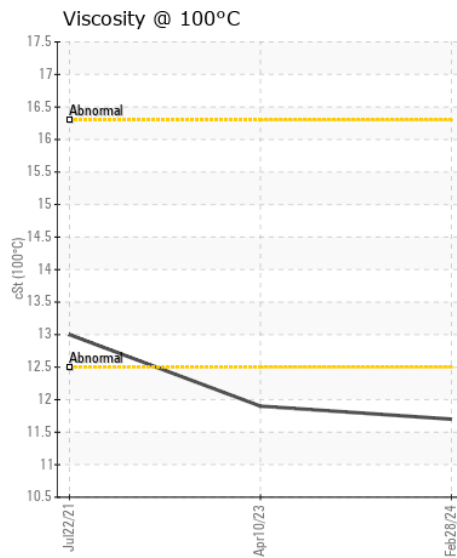
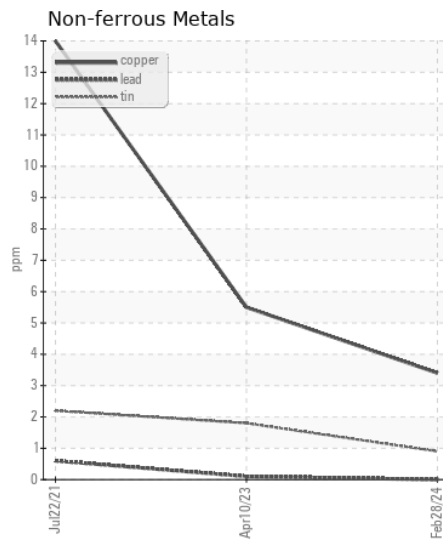
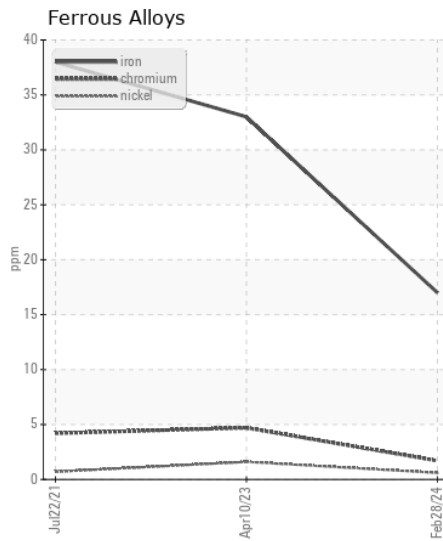
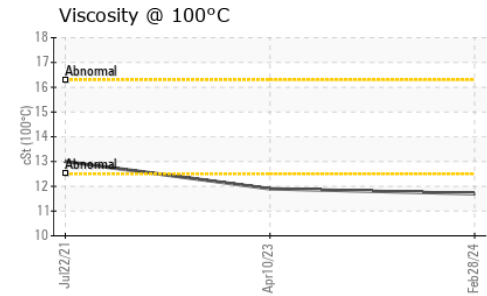
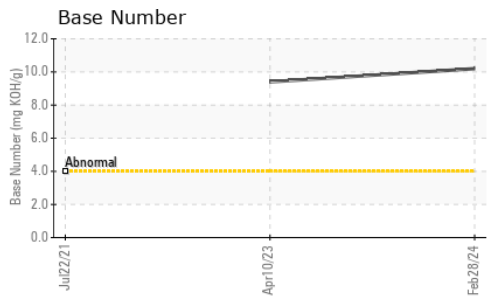
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	15	20
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	3
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	▲ 3.2	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.7</b>	8.9	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	21.6	17.3
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	>0.1	<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>0</b>	3	2
Boron	ppm	ASTM D5185m		<b>45</b>	31	7
Barium	ppm	ASTM D5185m		<b>2</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>40</b>	37	4
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	3
Magnesium	ppm	ASTM D5185m		<b>475</b>	427	58
Calcium	ppm	ASTM D5185m		<b>1635</b>	1635	2150
Phosphorus	ppm	ASTM D5185m		<b>913</b>	853	837
Zinc	ppm	ASTM D5185m		<b>1075</b>	1028	976
Sulfur	ppm	ASTM D5185m		<b>3159</b>	2703	3329
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.0</b>	19.4	10.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.2</b>	9.4	---
Visc @ 100°C	cSt	ASTM D445		<b>11.7</b>	11.9	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0007630      **Received** : 21 Mar 2024  
**Lab Number** : 06124744      **Tested** : 22 Mar 2024  
**Unique Number** : 10938895      **Diagnosed** : 22 Mar 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**NEAL'S PALLET COMPANY INC**  
 8808 WILKINSON BLVD  
 CHARLOTTE, NC  
 US 28214  
 Contact: Service Manager

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)

T:  
F: