



# ASCENDUM

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO L70H 622924**

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		<b>ASC0009030</b>	ASC0008676	VCP389654
Sample Date		Client Info		<b>08 Jul 2024</b>	07 Feb 2024	16 May 2023
Machine Age	hrs	Client Info		<b>6235</b>	5514	4551
Oil Age	hrs	Client Info		<b>721</b>	963	4551
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>10</b>	3	7
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>4</b>	0	<1
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</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.

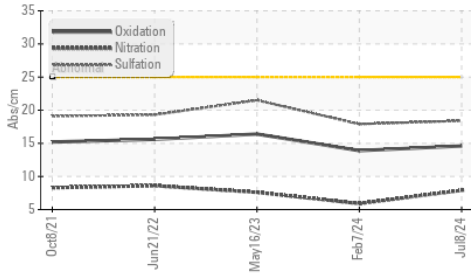
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	3	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	5.9	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	17.9	21.5
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

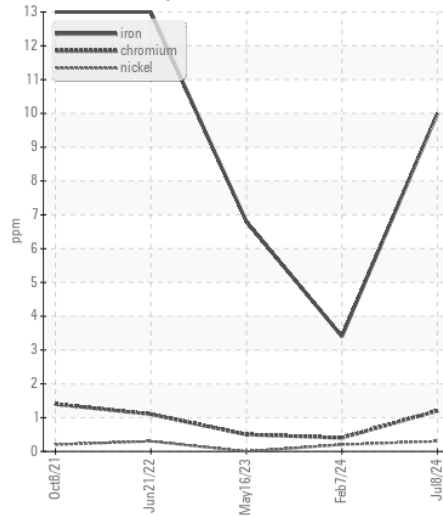
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Boron	ppm	ASTM D5185m	2.5	<b>2</b>	6	412
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>64</b>	56	82
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>1003</b>	866	506
Calcium	ppm	ASTM D5185m	2057	<b>1168</b>	1004	1370
Phosphorus	ppm	ASTM D5185m	935	<b>1178</b>	983	1093
Zinc	ppm	ASTM D5185m	1223	<b>1326</b>	1178	1328
Sulfur	ppm	ASTM D5185m	4079	<b>2963</b>	2884	4096
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.6</b>	13.9	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.6</b>	8.9	7.8
Visc @ 100°C	cSt	ASTM D445	15.0	<b>14.4</b>	14.3	12.9

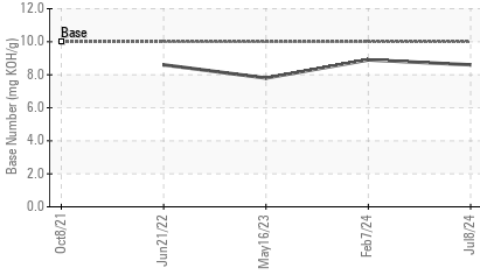
**FT-IR (Direct Trend)**



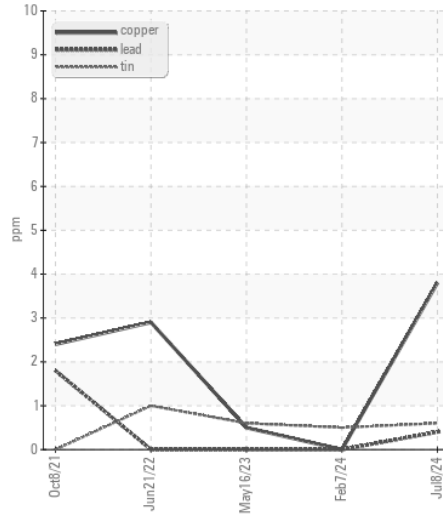
**Ferrous Alloys**



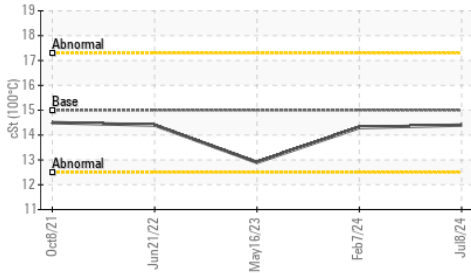
**Base Number**



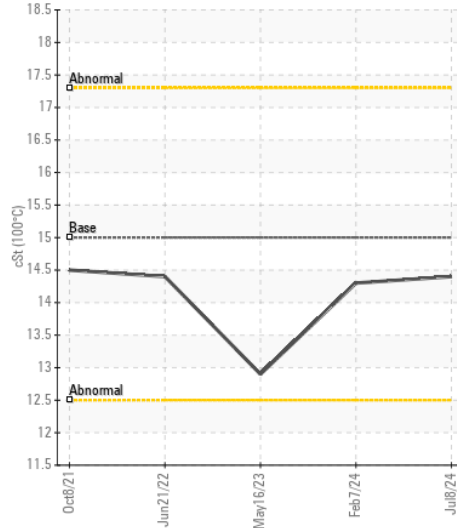
**Non-ferrous Metals**



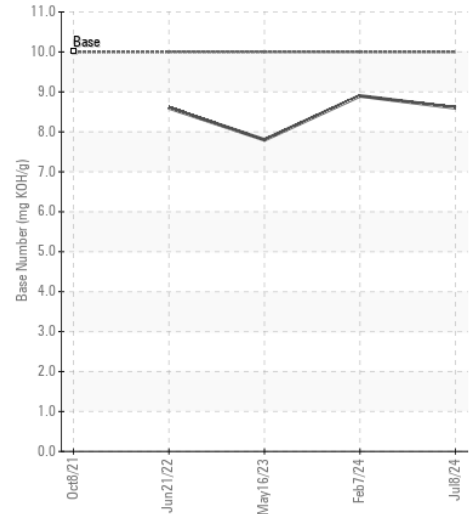
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009030 **Received** : 16 Jul 2024  
**Lab Number** : 06238650 **Tested** : 17 Jul 2024  
**Unique Number** : 11127484 **Diagnosed** : 18 Jul 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

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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