



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L180H 5497
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		ASC0003177	VCP425105	VCP336525
Sample Date		Client Info		17 May 2024	26 Jun 2023	14 Jan 2022
Machine Age	hrs	Client Info		5897	4219	0
Oil Age	hrs	Client Info		5897	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	6	4	15
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>30	2	0	5
Lead	ppm	ASTM D5185m	>40	1	1	<1
Copper	ppm	ASTM D5185m	>20	3	7	▲ 312
Tin	ppm	ASTM D5185m	>20	<1	<1	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

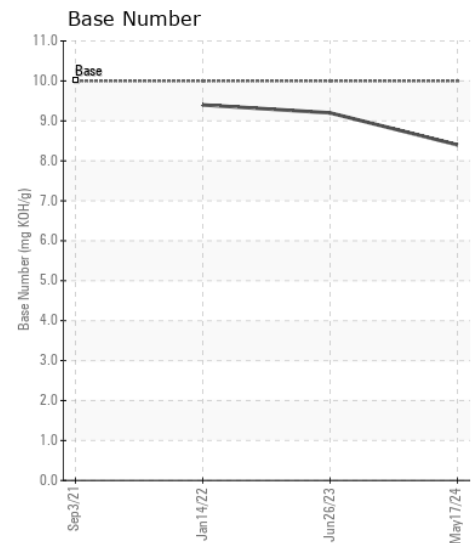
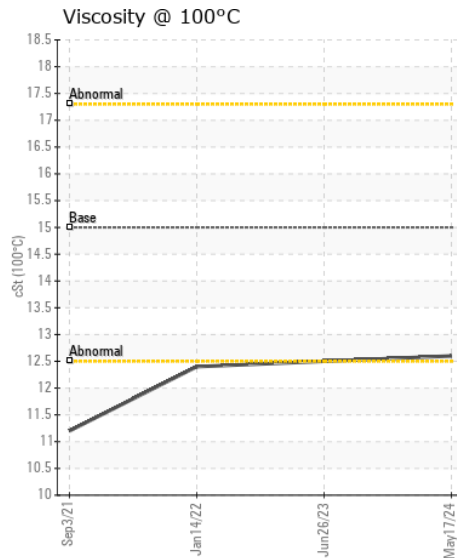
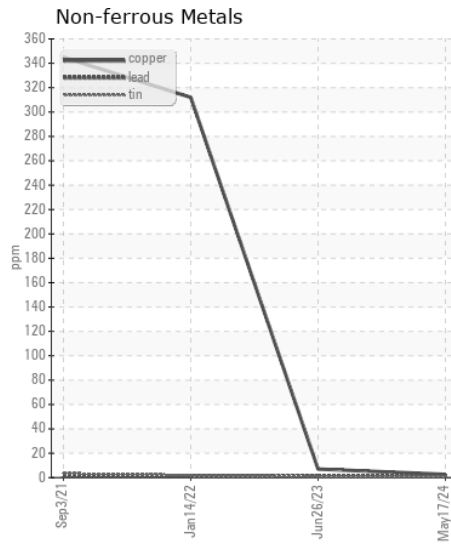
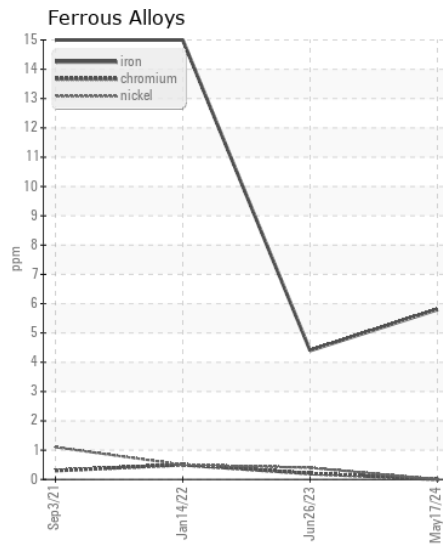
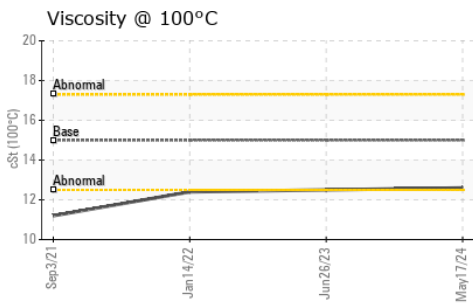
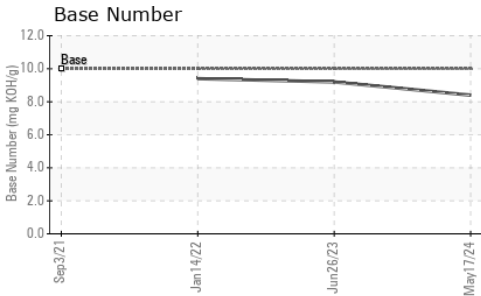
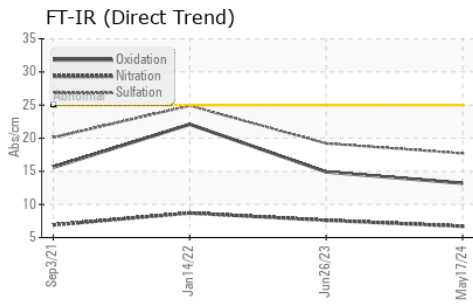
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	4	9
Potassium	ppm	ASTM D5185m	>20	1	2	2
Fuel		WC Method	>6.0	<1.0	<1.0	0.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.7	7.6	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	19.2	24.9
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	>0.2	NEG	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		<1	2	<1
Boron	ppm	ASTM D5185m	2.5	12	9	42
Barium	ppm	ASTM D5185m	0.0	0	1	<1
Molybdenum	ppm	ASTM D5185m	0.7	61	57	44
Manganese	ppm	ASTM D5185m	0.0	<1	<1	1
Magnesium	ppm	ASTM D5185m	256	932	864	492
Calcium	ppm	ASTM D5185m	2057	1068	1132	1686
Phosphorus	ppm	ASTM D5185m	935	1024	961	949
Zinc	ppm	ASTM D5185m	1223	1213	1178	1146
Sulfur	ppm	ASTM D5185m	4079	3511	3498	2699
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	14.9	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.4	9.2	9.4
Visc @ 100°C	cSt	ASTM D445	15.0	12.6	12.5	● 12.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : ASC0003177

Lab Number : 06187046

Unique Number : 11043798

Test Package : CONST (Additional Tests: TBN)

Received : 21 May 2024

Tested : 23 May 2024

Diagnosed : 23 May 2024 - Sean Felton

160 - ASCENDUM MACHINERY INC - MILLS RIVER

215 FANNING FIELDS RD

MILLS RIVER, NC

US 28759

Contact: BRANDON DRAKE

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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)