



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
AMR-12th Street
Machine Id
438153 VOLVO L180H 4787
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (13 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0016940	DJJ0016949	DJJ0012279
Sample Date		Client Info		02 Jan 2024	05 Jul 2023	13 Jan 2023
Machine Age	hrs	Client Info		11028	10517	9993
Oil Age	hrs	Client Info		250	10517	250
Filter Age	hrs	Client Info		250	10517	250
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	>200	5	3	2
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	2	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	3	1
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>20	<1	<1	<1
Tin	ppm	ASTM D5185m	>20	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

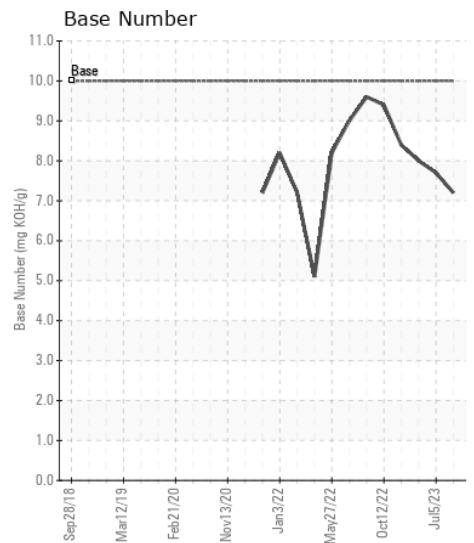
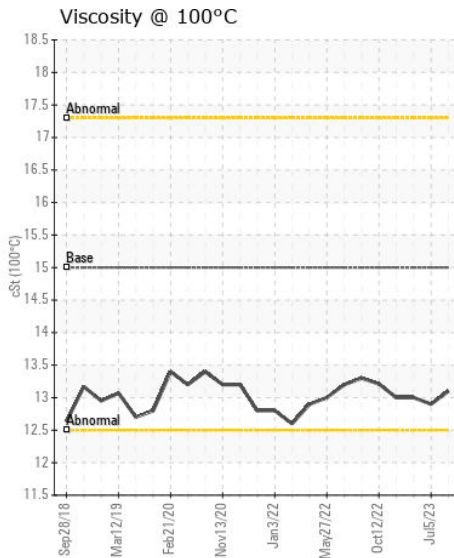
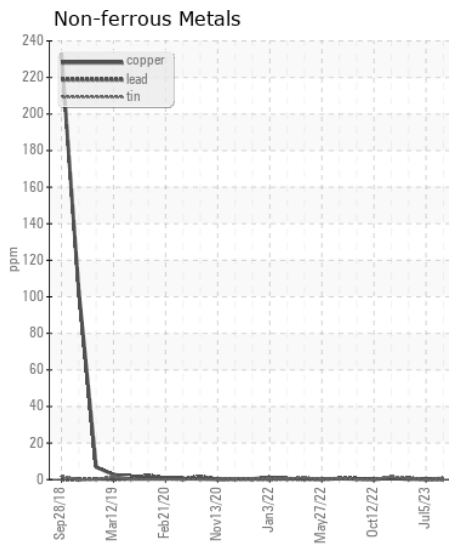
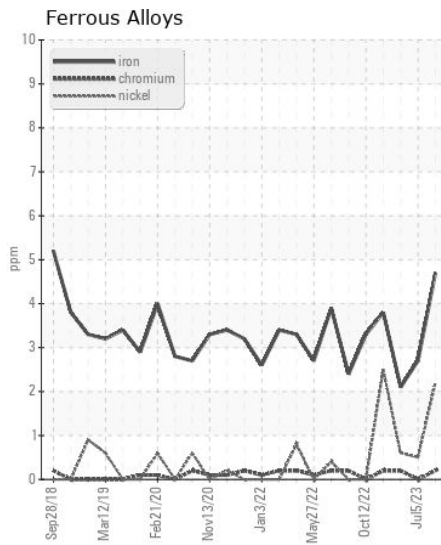
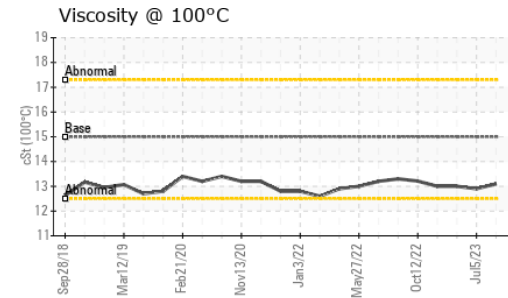
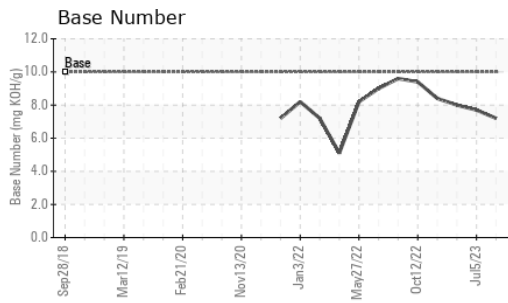
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	6	4
Potassium	ppm	ASTM D5185m	>20	2	1	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.5	5.8	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	19.6	19.4
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 suitable for further service.

Sodium	ppm	ASTM D5185m		0	0	1
Boron	ppm	ASTM D5185m	2.5	412	461	365
Barium	ppm	ASTM D5185m	0.0	0	0	2
Molybdenum	ppm	ASTM D5185m	0.7	83	93	78
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	378	405	401
Calcium	ppm	ASTM D5185m	2057	1275	1373	1258
Phosphorus	ppm	ASTM D5185m	935	990	974	910
Zinc	ppm	ASTM D5185m	1223	1098	1172	1142
Sulfur	ppm	ASTM D5185m	4079	3479	3438	3504
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.7	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.2	7.7	8.0
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	12.9	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0016940 **Received** : 11 Jan 2024
Lab Number : 06058635 **Diagnosed** : 14 Jan 2024
Unique Number : 10830017 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: TBN)

ADVANTAGE METALS RECYCLING - 12 STREET
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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)