



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO A45G 13389 (S/N 353454)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009440	ASC0008779	VCP441102
Sample Date		Client Info		28 Jun 2024	08 Apr 2024	27 Feb 2024
Machine Age	hrs	Client Info		5168	4249	4249
Oil Age	hrs	Client Info		5168	4249	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	13	9	13
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>2	4	4	▲ 9
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	4	3	3
Lead	ppm	ASTM D5185m	>40	1	<1	1
Copper	ppm	ASTM D5185m	>330	6	15	23
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	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.

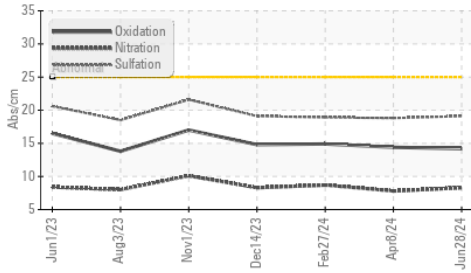
Silicon	ppm	ASTM D5185m	>25	5	4	6
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.3	7.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	18.8	18.9
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

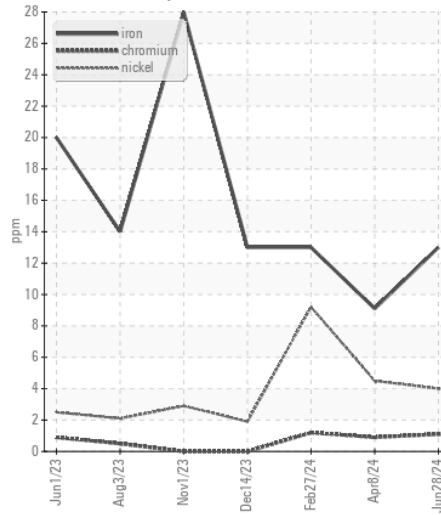
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	1	0	2
Boron	ppm	ASTM D5185m	250	2	2	8
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	73	60	64
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	1147	864	969
Calcium	ppm	ASTM D5185m	3000	1308	1031	1144
Phosphorus	ppm	ASTM D5185m	1150	1380	907	1009
Zinc	ppm	ASTM D5185m	1350	1518	1118	1213
Sulfur	ppm	ASTM D5185m	4250	3657	2947	3099
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	14.4	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0	7.9	7.6
Visc @ 100°C	cSt	ASTM D445	10.9	12.5	12.6	13.0

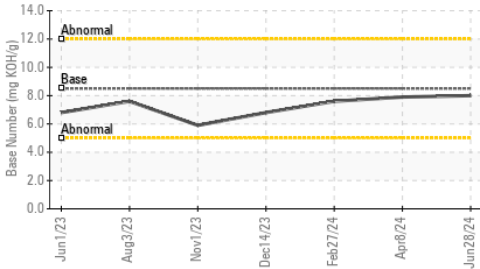
FT-IR (Direct Trend)



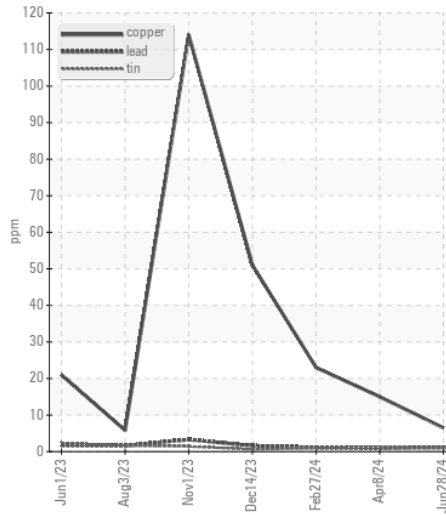
Ferrous Alloys



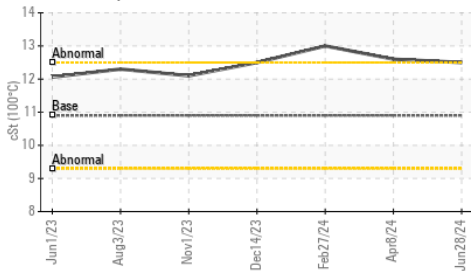
Base Number



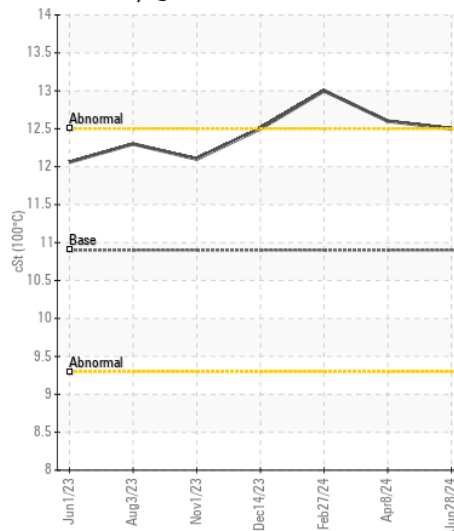
Non-ferrous Metals



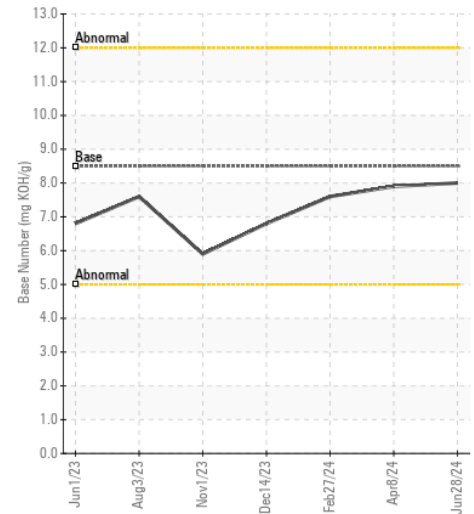
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : ASC0009440

Lab Number : 06238660

Unique Number : 11127494

Test Package : CONST (Additional Tests: TBN)

Received : 16 Jul 2024

Tested : 18 Jul 2024

Diagnosed : 18 Jul 2024 - Sean Felton

117 - ASCENDUM MACHINERY INC - GREENVILLE

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US 27834

Contact: ALLEN WILLIAMS

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T:

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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