



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
VOLVO A45G 353323
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP437754	VCP435533	VCP386696
Sample Date		Client Info		12 Apr 2024	06 Jan 2024	30 Aug 2023
Machine Age	hrs	Client Info		2288	1771	1291
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	8	12
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	1	1	2
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	2
Lead	ppm	ASTM D5185m	>40	6	<1	0
Copper	ppm	ASTM D5185m	>330	7	11	52
Tin	ppm	ASTM D5185m	>15	1	1	2
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.

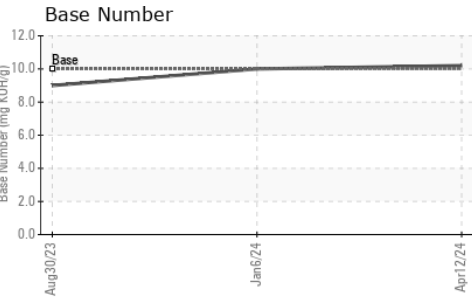
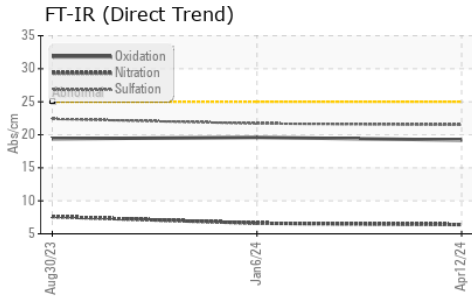
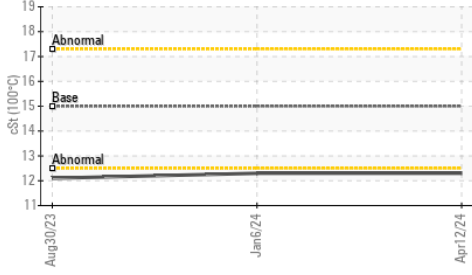
Silicon	ppm	ASTM D5185m	>25	6	6	11
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel		WC Method	>6.0	<1.0	<1.0	0.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.4	6.6	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	21.7	22.4
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

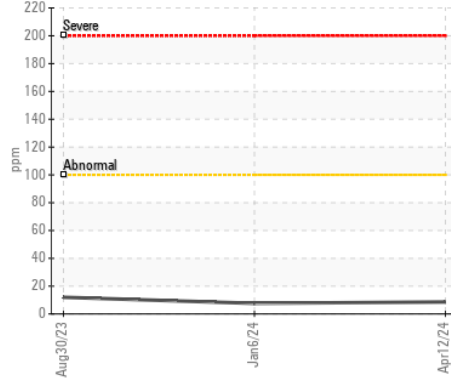
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	2	3
Boron	ppm	ASTM D5185m	2.5	55	49	42
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	49	51	53
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	489	484	508
Calcium	ppm	ASTM D5185m	2057	1662	1635	1812
Phosphorus	ppm	ASTM D5185m	935	981	929	967
Zinc	ppm	ASTM D5185m	1223	1112	1100	1186
Sulfur	ppm	ASTM D5185m	4079	3315	2898	3695
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	19.6	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.2	10.0	9.0
Visc @ 100°C	cSt	ASTM D445	15.0	12.3	12.3	12.1

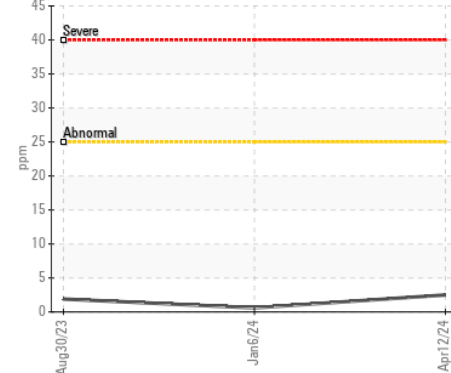
● Viscosity @ 100°C



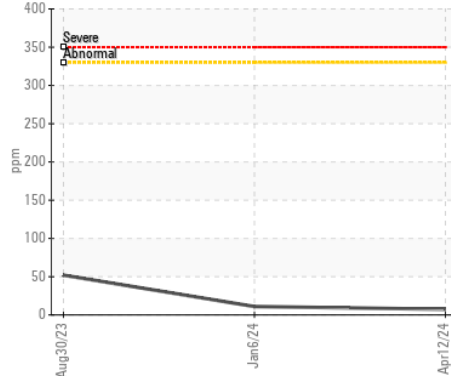
Iron (ppm)



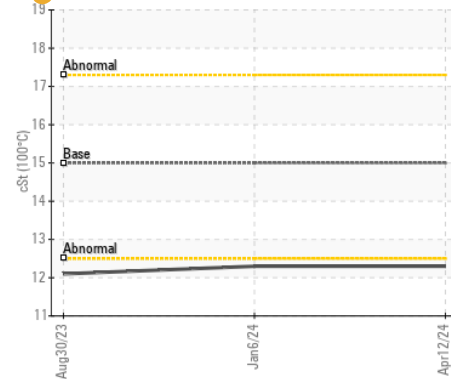
Aluminum (ppm)



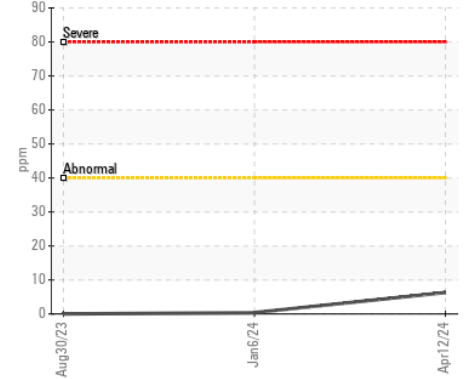
Copper (ppm)



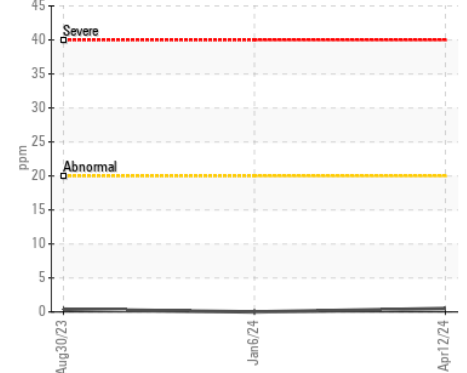
● Viscosity @ 100°C



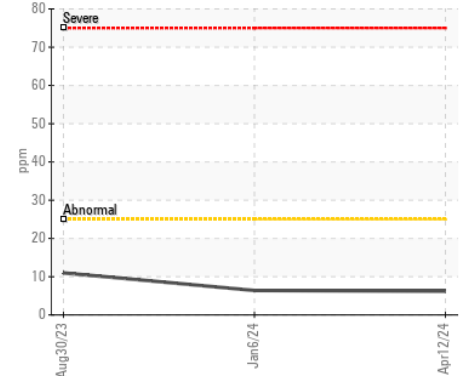
Lead (ppm)



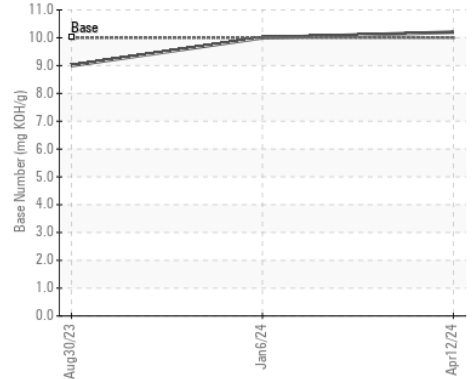
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

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

Sample No. : VCP437754

Lab Number : 06154042

Unique Number : 10989465

Test Package : MOB 1 (Additional Tests: TBN)

Received : 19 Apr 2024

Tested : 22 Apr 2024

Diagnosed : 23 Apr 2024 - Don Baldrige

ALTA EQUIPMENT COMPANY

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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)