MOB I

VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[443773]
Machine Id
VOLVO A40G 342315
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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The aluminum level is abnormal. Valve wear is indicated.

CONTAMINATION

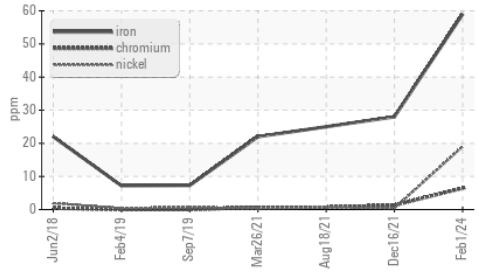
There is no indication of any contamination in the oil.

FLUID CONDITION

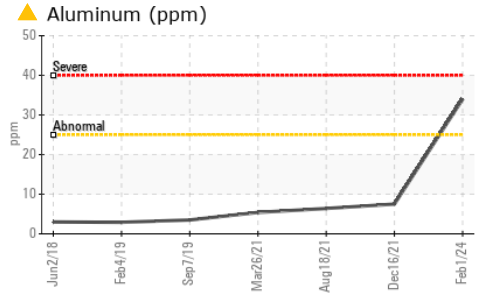
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP441196	VCP329511	VCP337365
Sample Date		Client Info		01 Feb 2024	16 Dec 2021	18 Aug 2021
Machine Age	hrs	Client Info		7233	3976	3420
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	59	28	25
Chromium	ppm	ASTM D5185m	>20	6	1	<1
Nickel	ppm	ASTM D5185m	>2	▲ 19	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ 34	8	6
Lead	ppm	ASTM D5185m	>40	8	<1	1
Copper	ppm	ASTM D5185m	>330	16	2	7
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	21	24	15
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Fuel		WC Method	>6.0	<1.0	<1.0	0.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	13.6	7.3	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.6	22.2	23.3
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
Sodium	ppm	ASTM D5185m		72	2	1
Boron	ppm	ASTM D5185m	2.5	5	39	104
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	57	42	50
Manganese	ppm	ASTM D5185m	0.0	2	<1	<1
Magnesium	ppm	ASTM D5185m	256	573	512	513
Calcium	ppm	ASTM D5185m	2057	1521	1743	1604
Phosphorus	ppm	ASTM D5185m	935	854	951	868
Zinc	ppm	ASTM D5185m	1223	1078	1099	1020
Sulfur	ppm	ASTM D5185m	4079	2510	2648	2242
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.4	19.6	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.4	10.7	---
Visc @ 100°C	cSt	ASTM D445	15.0	12.6	12.9	▲ 12.3

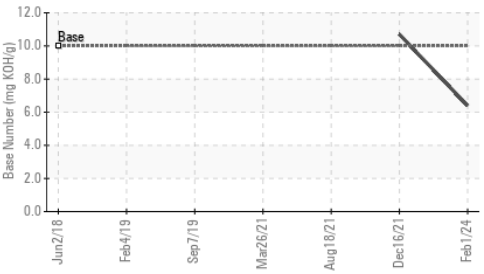
Ferrous Alloys



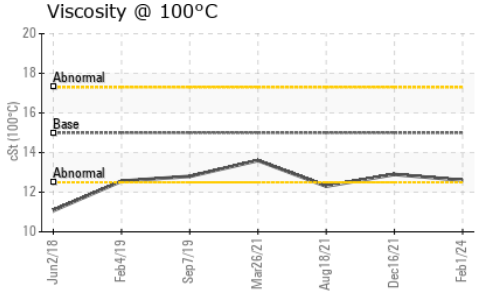
Aluminum (ppm)



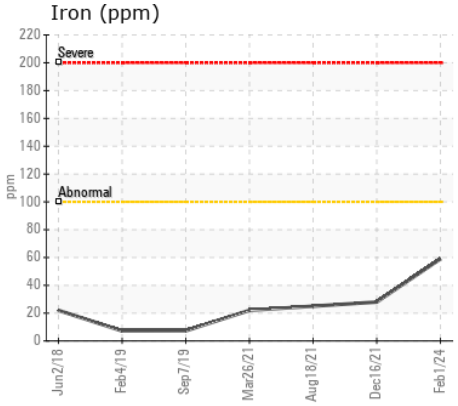
Base Number



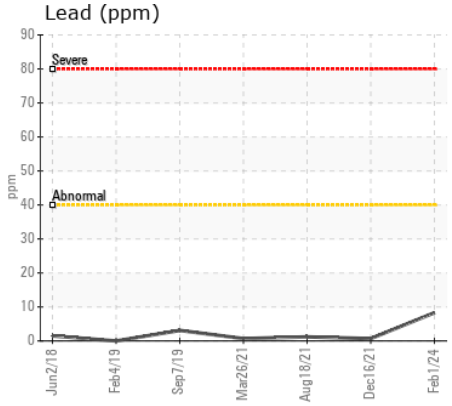
Viscosity @ 100°C



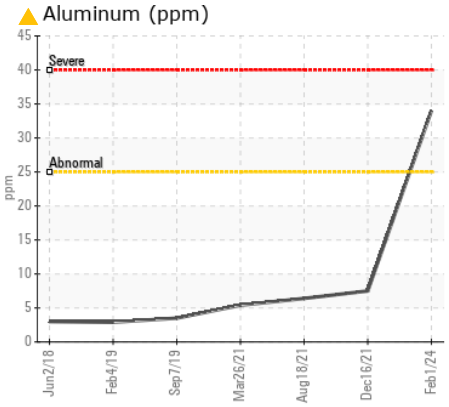
Iron (ppm)



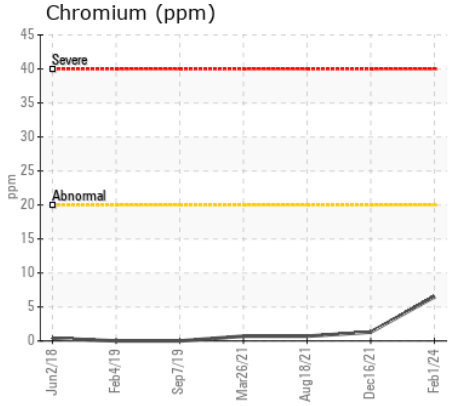
Lead (ppm)



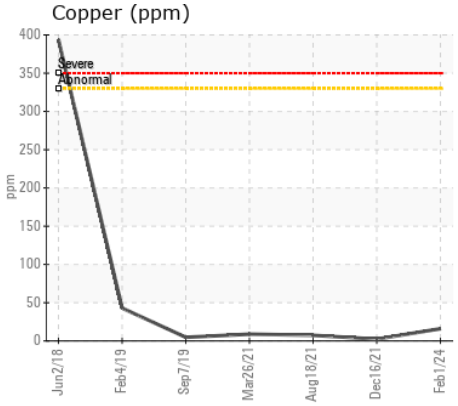
Aluminum (ppm)



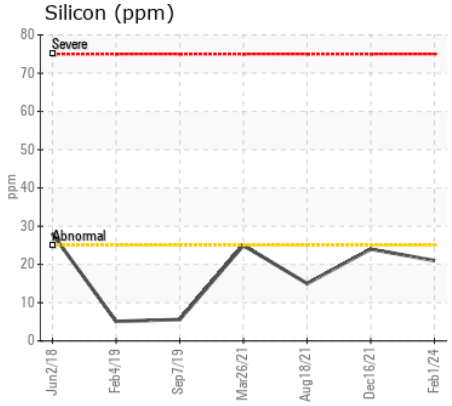
Chromium (ppm)



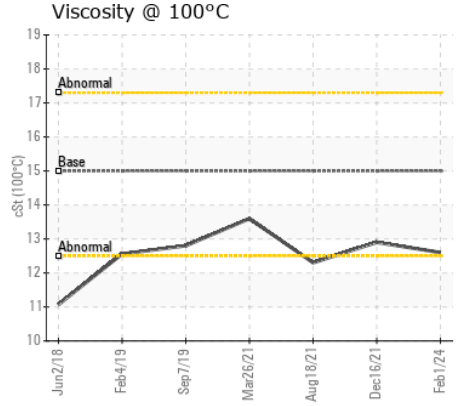
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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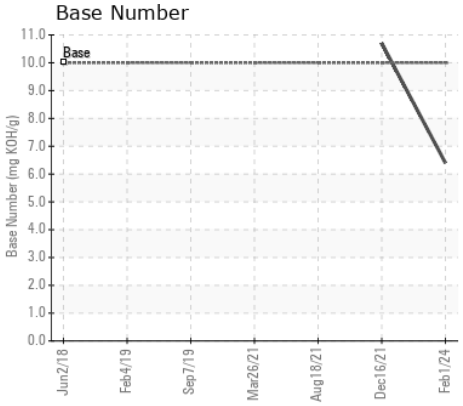

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: VCP441196	**Received**	: 08 Feb 2024
Lab Number	: 06083221	**Tested**	: 08 Feb 2024
Unique Number	: 10870666	**Diagnosed**	: 09 Feb 2024 - Don Baldridge
Test Package	: MOB 1 (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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