



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area
Ascendum Machinery
Machine Id
VOLVO A30G A30GV742414
Component
Diesel Engine
Fluid
VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- 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		ASC0007281	ASC0000795	VCP0007344
Sample Date		Client Info		21 Feb 2024	18 Sep 2023	24 Jan 2023
Machine Age	hrs	Client Info		5214	4505	3637
Oil Age	hrs	Client Info		709	868	3637
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	17	12	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	3	0
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	2	2	4
Tin	ppm	ASTM D5185m	>15	1	<1	<1
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.

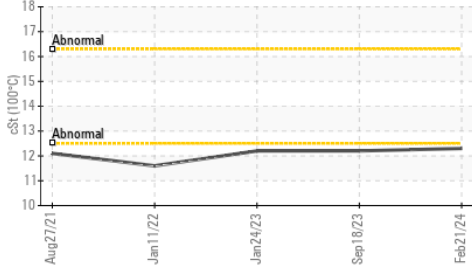
Silicon	ppm	ASTM D5185m	>25	5	5	5
Potassium	ppm	ASTM D5185m	>20	2	<1	1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.7	8.3	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	21.2	21.8
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

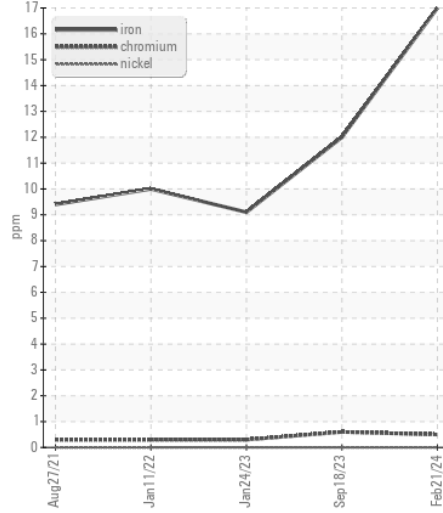
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		3	<1	<1
Boron	ppm	ASTM D5185m		22	28	51
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		36	41	40
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		505	472	464
Calcium	ppm	ASTM D5185m		1751	1745	1620
Phosphorus	ppm	ASTM D5185m		892	939	892
Zinc	ppm	ASTM D5185m		1094	1125	1048
Sulfur	ppm	ASTM D5185m		2959	3400	2722
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	18.8	19.6
Base Number (BN)	mg KOH/g	ASTM D2896		7.5	8.1	9.7
Visc @ 100°C	cSt	ASTM D445		▲ 12.3	▲ 12.2	▲ 12.2

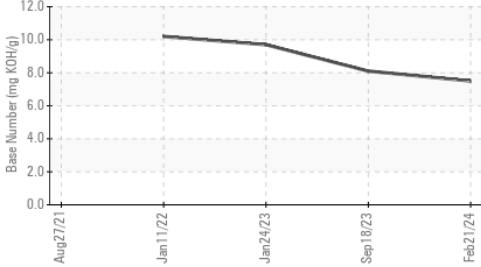
▲ Viscosity @ 100°C



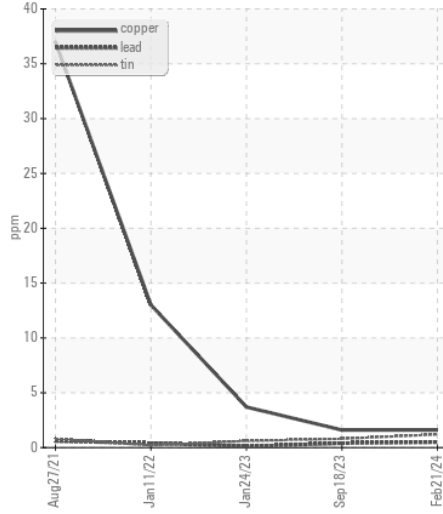
Ferrous Alloys



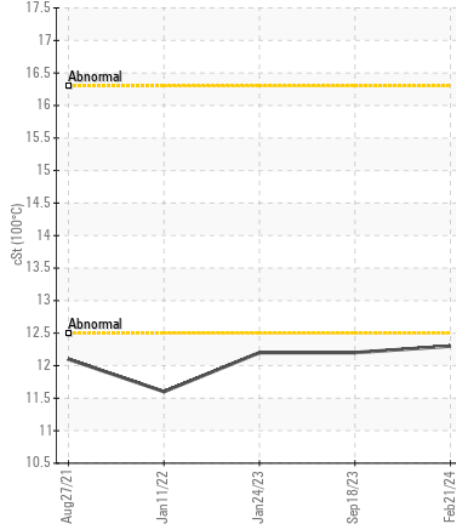
Base Number



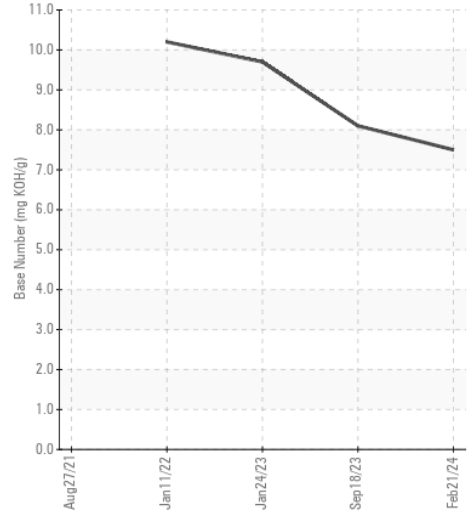
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007281 **Received** : 23 Feb 2024
Lab Number : 06098948 **Tested** : 26 Feb 2024
Unique Number : 10897178 **Diagnosed** : 26 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

CAROLINA PRECISION GRADING
 7427 MATTHEWS MINT HILL ROAD
 CHARLOTTE, NC
 US 28227
 Contact: Service Manager

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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