



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO EC300E 2131 (S/N 314707)

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0007144	VCP0006390	VCP0002007
Sample Date		Client Info		23 Apr 2024	30 Mar 2023	12 Aug 2022
Machine Age	hrs	Client Info		4302	3516	2627
Oil Age	hrs	Client Info		786	889	2627
Filter Age	hrs	Client Info		0	0	2627
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	>100	16	9	8
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		2	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	6
Aluminum	ppm	ASTM D5185m	>10	11	4	6
Lead	ppm	ASTM D5185m	>20	0	0	1
Copper	ppm	ASTM D5185m	>15	0	1	2
Tin	ppm	ASTM D5185m	>10	2	<1	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.

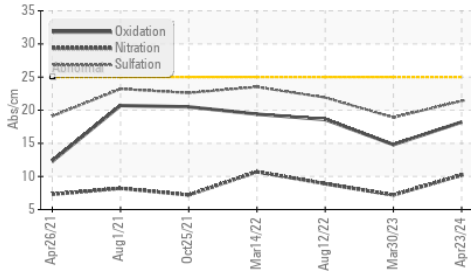
Silicon	ppm	ASTM D5185m	>20	11	6	6
Potassium	ppm	ASTM D5185m	>20	14	5	16
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.2	7.2	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	18.9	21.9
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

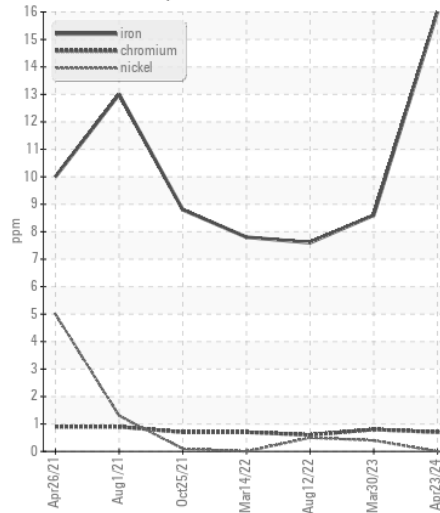
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	<1	3
Boron	ppm	ASTM D5185m	2.5	55	9	87
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	70	64	21
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	954	1037	246
Calcium	ppm	ASTM D5185m	2057	1322	1244	1735
Phosphorus	ppm	ASTM D5185m	935	1155	1121	864
Zinc	ppm	ASTM D5185m	1223	1401	1406	1084
Sulfur	ppm	ASTM D5185m	4079	3526	4280	2868
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	14.8	18.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.0	9.1	8.6
Visc @ 100°C	cSt	ASTM D445	15.0	13.7	13.9	13.7

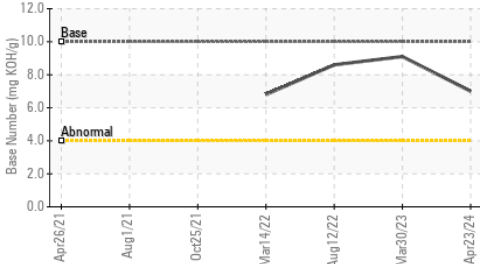
FT-IR (Direct Trend)



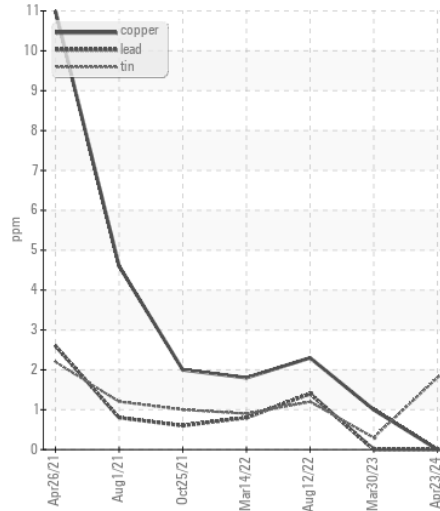
Ferrous Alloys



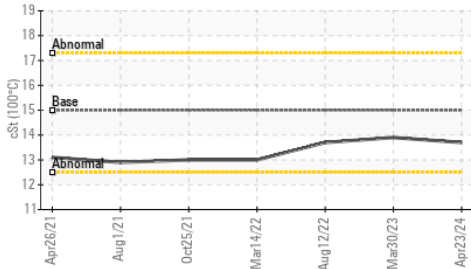
Base Number



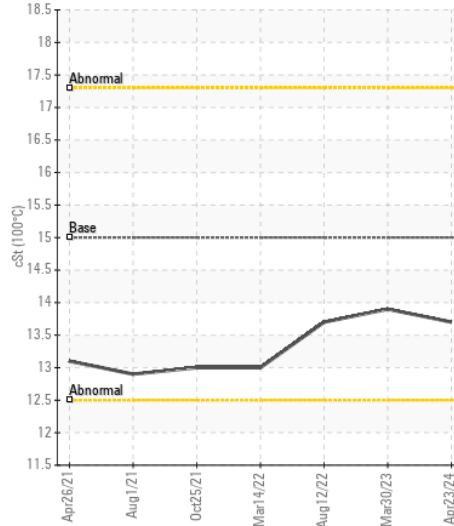
Non-ferrous Metals



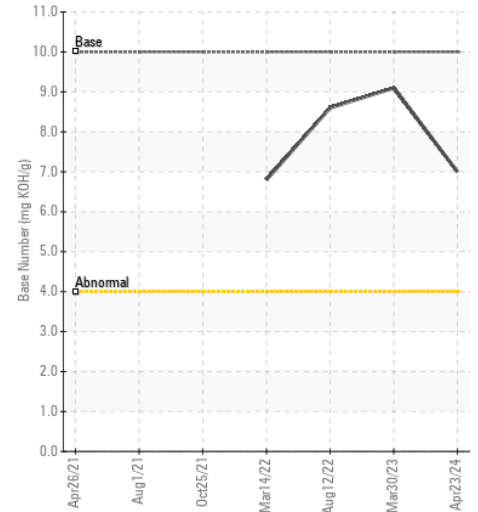
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007144 **Received** : 25 Apr 2024
Lab Number : 06160097 **Tested** : 26 Apr 2024
Unique Number : 10995520 **Diagnosed** : 26 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

TRIANGLE GRADING AND PAVING INC
 1521 Huffman Mill Rd
 BURLINGTON, NC
 US 27216
 Contact: ADAM CORBETT
 wacorbett@trianglegradingpaving.com

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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