



ASCENDUM

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
VOLVO EC350EL 310763
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0010869	VCP363514	VCP342576
Sample Date		Client Info		24 Jun 2024	18 Aug 2022	11 Aug 2021
Machine Age	hrs	Client Info		3327	2213	1757
Oil Age	hrs	Client Info		3327	0	1757
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	17	4	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	▲ 5	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	3	2	<1
Lead	ppm	ASTM D5185m	>40	1	2	<1
Copper	ppm	ASTM D5185m	>330	6	10	▲ 59
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

Sodium and/or potassium levels are high. Fuel content negligible. Test for glycol is negative.

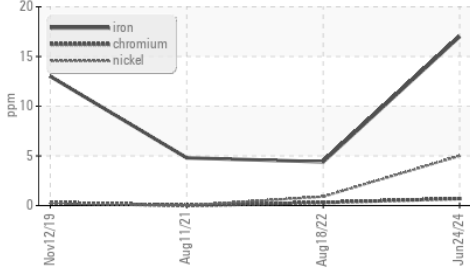
Silicon	ppm	ASTM D5185m	>25	9	4	6
Potassium	ppm	ASTM D5185m	>20	▲ 42	6	0
Fuel	%	ASTM D3524	>6.0	0.5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.6	6.6	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	21.8	23.1
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

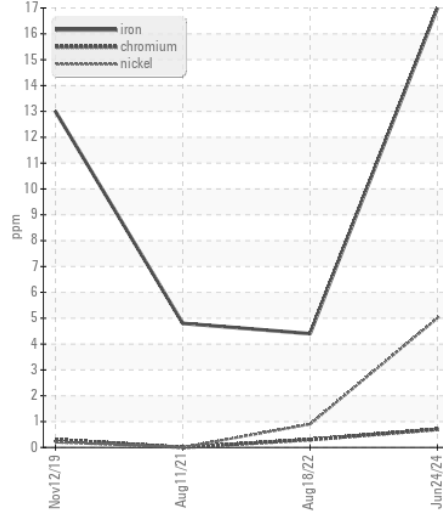
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		▲ 61	● 66	2
Boron	ppm	ASTM D5185m	2.5	15	151	46
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	46	14	33
Manganese	ppm	ASTM D5185m	0.0	2	<1	<1
Magnesium	ppm	ASTM D5185m	256	606	88	444
Calcium	ppm	ASTM D5185m	2057	1698	2000	1644
Phosphorus	ppm	ASTM D5185m	935	1020	975	834
Zinc	ppm	ASTM D5185m	1223	1239	1160	994
Sulfur	ppm	ASTM D5185m	4079	3705	3686	2494
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	17.9	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.4	11.1	---
Visc @ 100°C	cSt	ASTM D445	15.0	● 12.1	13.5	12.5

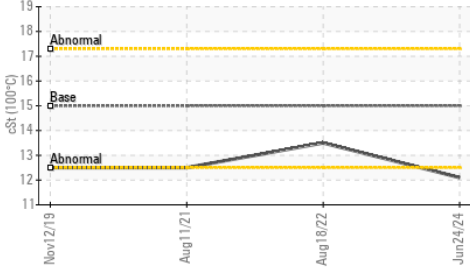
▲ Ferrous Alloys



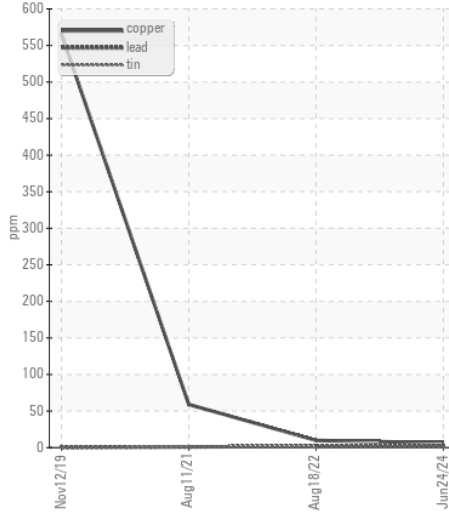
▲ Ferrous Alloys



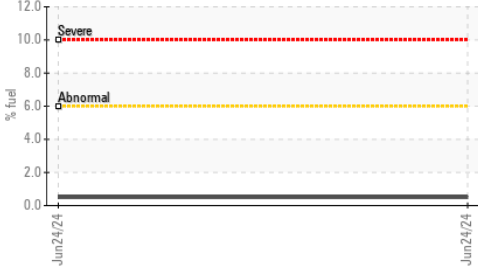
● Viscosity @ 100°C



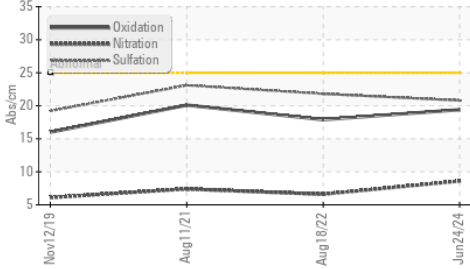
Non-ferrous Metals



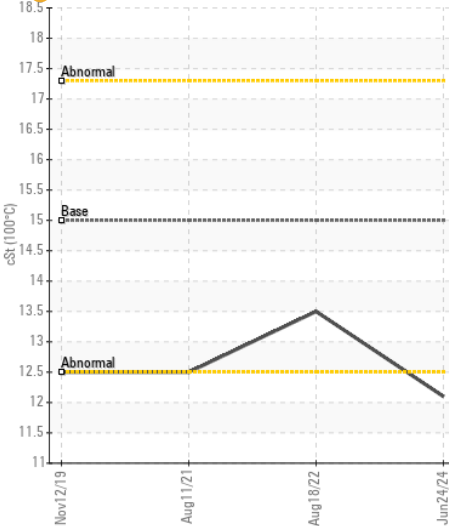
Fuel Dilution



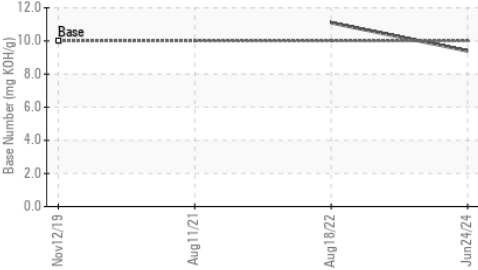
FT-IR (Direct Trend)



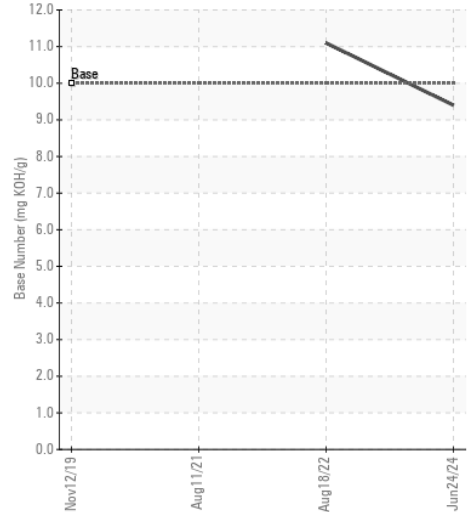
● Viscosity @ 100°C



Base Number



Base Number



Certificate L2367

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

Sample No. : ASC0010869

Lab Number : 06222958

Unique Number : 11101155

Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

Received : 27 Jun 2024

Tested : 02 Jul 2024

Diagnosed : 02 Jul 2024 - Jonathan Hester

365 - ASCENDUM MACHINERY INC - SAVANNAH

54 MEDLINE DR

RICHMOND HILL, GA

US 31324

Contact: JESSE WILSON

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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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