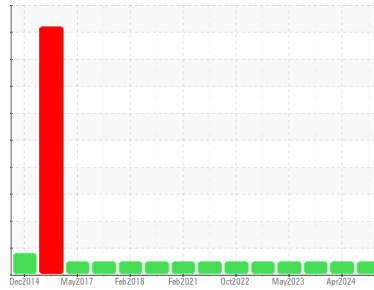




Machine Id
VOLVO L110H 10018
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		ASC0004317	ASC0004277	VCE250091
Sample Date	Client Info		19 Jun 2024	29 Apr 2024	26 Oct 2023
Machine Age	hrs	Client Info	21634	21266	20222
Oil Age	hrs	Client Info	0	21266	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	8	18	12
Chromium	ppm	ASTM D5185m >10	0	<1	<1
Nickel	ppm	ASTM D5185m >10	<1	0	<1
Titanium	ppm	ASTM D5185m	0	<1	4
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	3	4	4
Lead	ppm	ASTM D5185m >20	0	<1	0
Copper	ppm	ASTM D5185m >15	0	1	2
Tin	ppm	ASTM D5185m >10	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2.5	38	16	30
Barium	ppm	ASTM D5185m 0.0	0	0	0
Molybdenum	ppm	ASTM D5185m 0.7	41	47	46
Manganese	ppm	ASTM D5185m 0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 256	539	532	520
Calcium	ppm	ASTM D5185m 2057	1722	1824	1818
Phosphorus	ppm	ASTM D5185m 935	1009	994	1044
Zinc	ppm	ASTM D5185m 1223	1190	1150	1303
Sulfur	ppm	ASTM D5185m 4079	3392	3411	3229

CONTAMINANTS

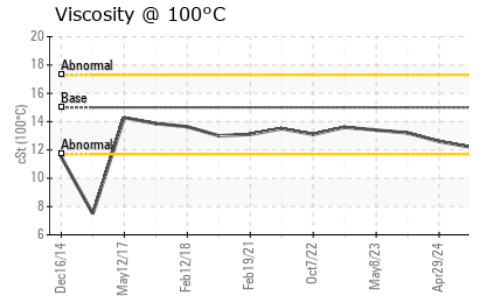
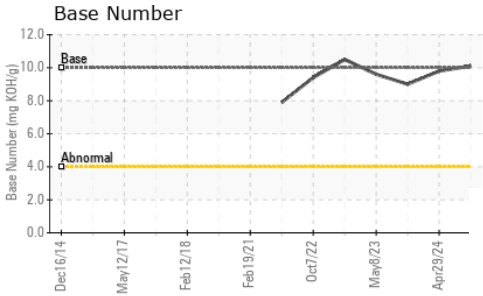
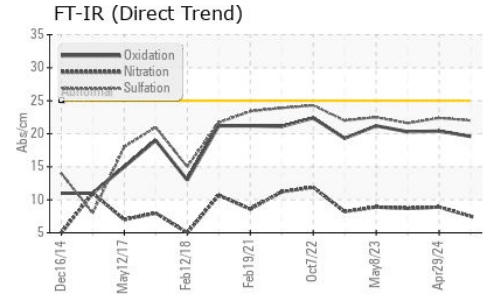
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	5	5	7
Sodium	ppm	ASTM D5185m	15	29	3
Potassium	ppm	ASTM D5185m >20	4	1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.7	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.5	8.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.0	22.4	21.6

FLUID DEGRADATION

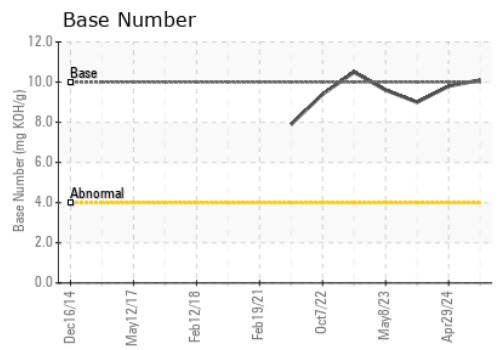
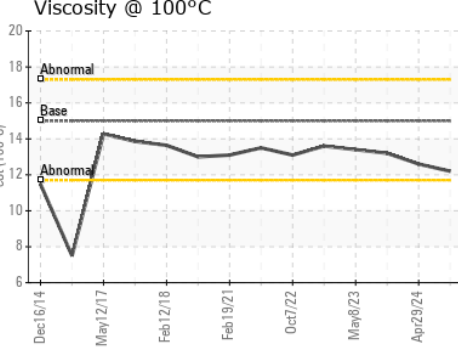
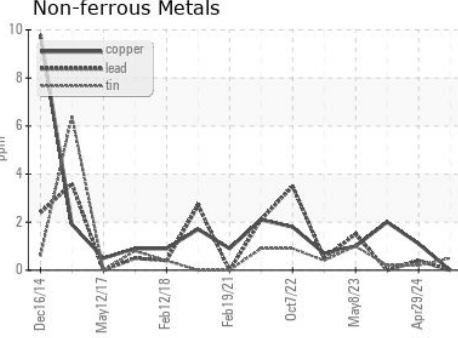
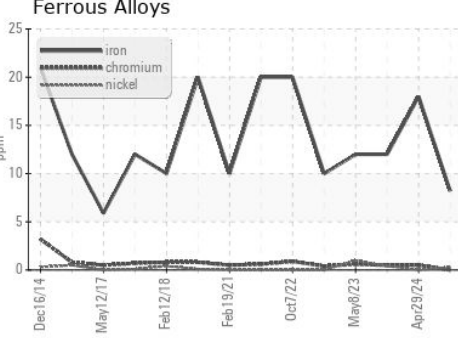
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.6	20.4	20.3
Base Number (BN)	mg KOH/g	ASTM D2896 10	10.1	9.8	9.0



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.0	12.2	12.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0004317 **Received** : 20 Jun 2024
Lab Number : 06215432 **Tested** : 21 Jun 2024
Unique Number : 11088296 **Diagnosed** : 21 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

520 - ASCENDUM MACHINERY INC - KNOXVILLE
 5730 RUTLEDGE PIKE
 KNOXVILLE, TN
 US 37924
 Contact: BRANDON GRANT
 brandon.grant@ascendummachinery.com
 T: (865)525-1845
 F: (865)525-0251

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)