



ASCENDUM

OIL ANALYSIS REPORT

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

ABNORMAL



Area

Blythe Construction CSA - Charlotte

Machine Id

VOLVO L180G 3103971 (S/N L180GV22106)

Component

Diesel Engine

Fluid

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0001258	ASC0000043	VCP0005169
Sample Date		Client Info		12 Sep 2023	26 Jun 2023	02 Nov 2022
Machine Age	hrs	Client Info		11491	11013	10437
Oil Age	hrs	Client Info		478	576	500
Filter Age	hrs	Client Info		0	576	500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	45	45	6
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	2	2
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>15	3	3	2
Tin	ppm	ASTM D5185m	>10	<1	<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

CONTAMINATION

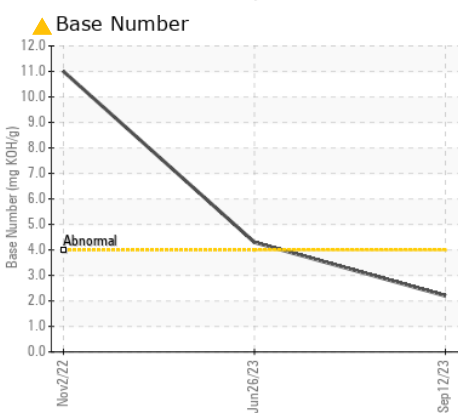
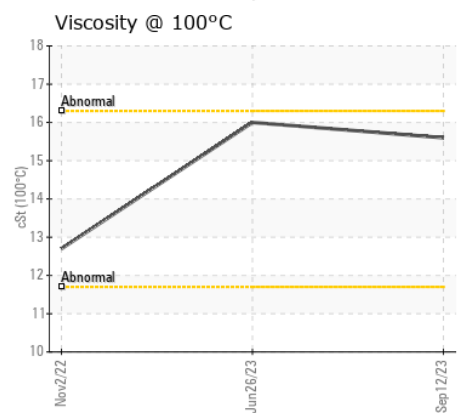
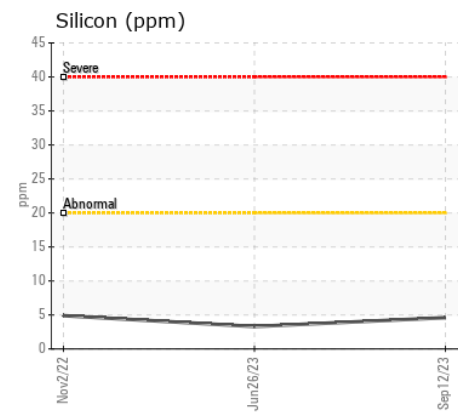
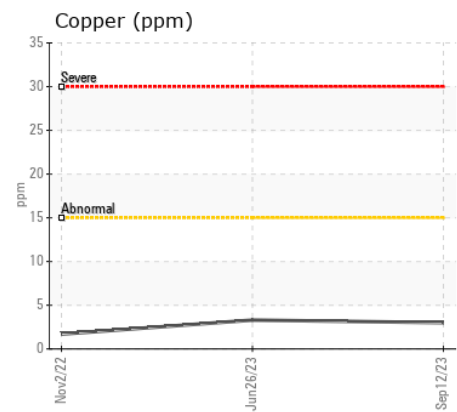
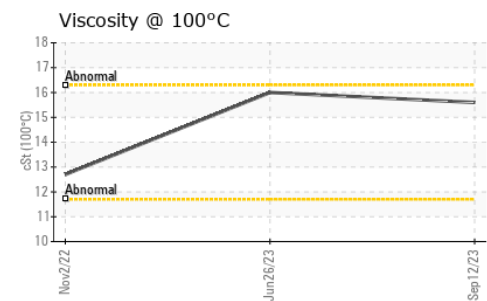
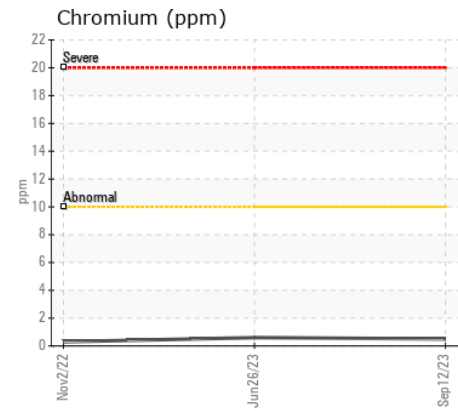
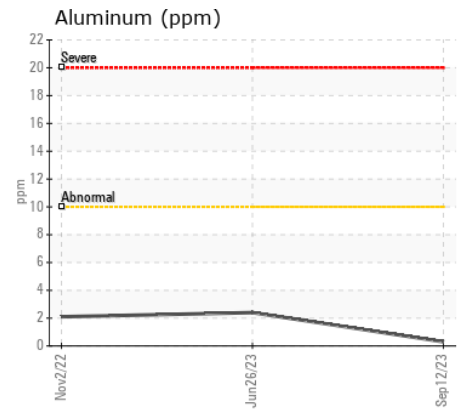
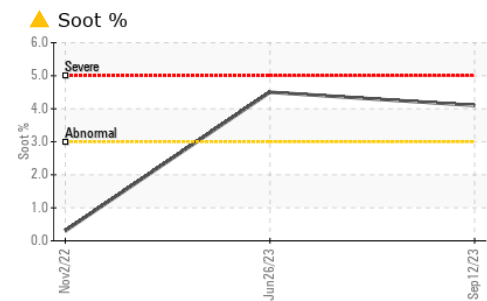
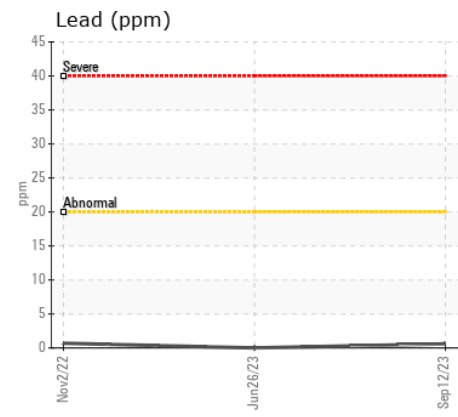
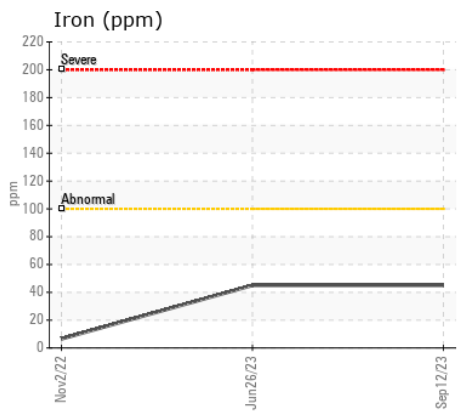
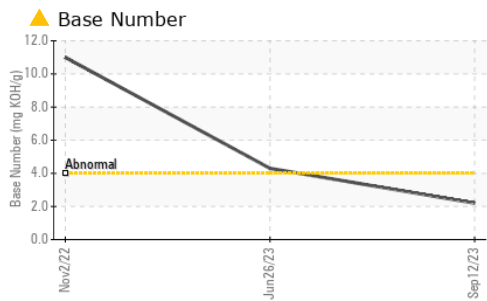
There is a moderate concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>20	5	3	5
Potassium	ppm	ASTM D5185m	>20	2	<1	0
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	4.1	4.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	12.3	12.1	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.9	28.9	23.2
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		1	<1	2
Boron	ppm	ASTM D5185m		13	10	51
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		57	57	39
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		908	929	475
Calcium	ppm	ASTM D5185m		1258	1135	1570
Phosphorus	ppm	ASTM D5185m		997	1017	830
Zinc	ppm	ASTM D5185m		1290	1275	1040
Sulfur	ppm	ASTM D5185m		3656	3738	3087
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.8	18.1	20.4
Base Number (BN)	mg KOH/g	ASTM D2896		2.2	4.3	11
Visc @ 100°C	cSt	ASTM D445		15.6	16.0	12.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0001258 **Received** : 13 Sep 2023
Lab Number : 05949762 **Tested** : 15 Sep 2023
Unique Number : 10645721 **Diagnosed** : 15 Sep 2023 - Jonathan Hester
Test Package : MOBCE (Additional Tests: TBN)

BLYTHE CONSTRUCTION INC
 2911 N GRAHAM STREET
 CHARLOTTE, NC
 US 28231
 Contact: Service Manager

Certificate L2367
 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)