



ASCENDUM

OIL ANALYSIS REPORT



Area
Ascendum Machinery
Machine Id
VOLVO EC220E 315508
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

RECOMMENDATION

We advise that you check for the source of water entry. The 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		ASC0001550	---	---
Sample Date		Client Info		10 Jan 2024	---	---
Machine Age	hrs	Client Info		427	---	---
Oil Age	hrs	Client Info		427	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	6	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>20	0	---	---
Copper	ppm	ASTM D5185m	>150	29	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

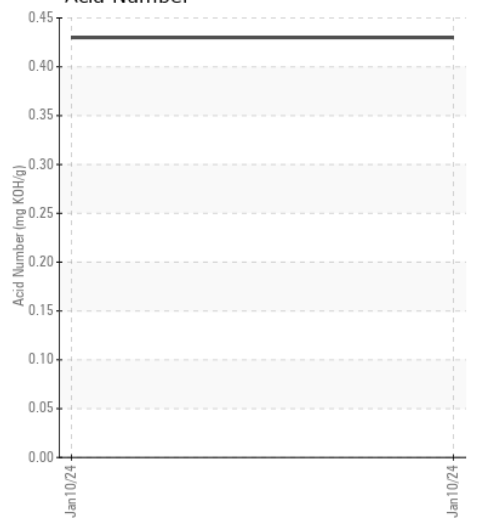
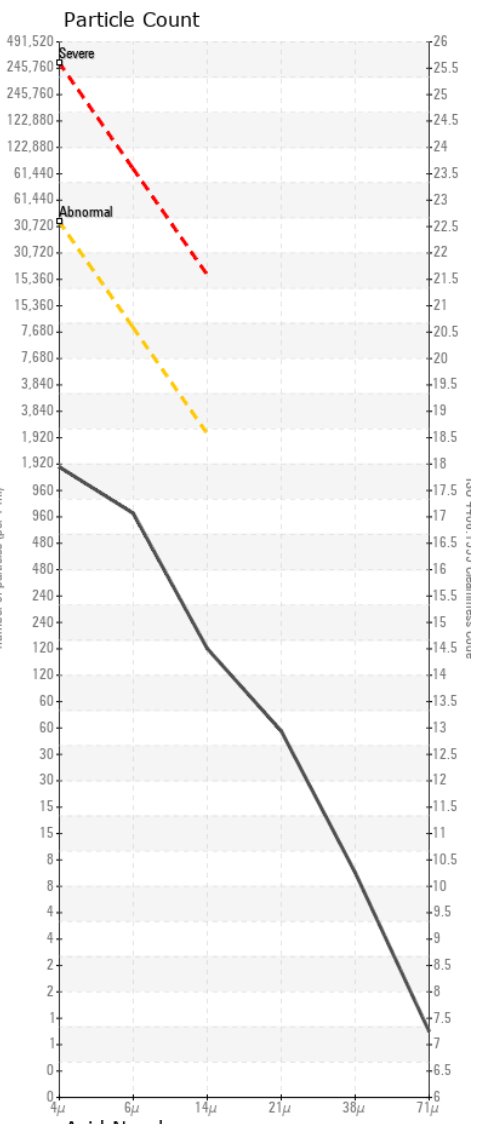
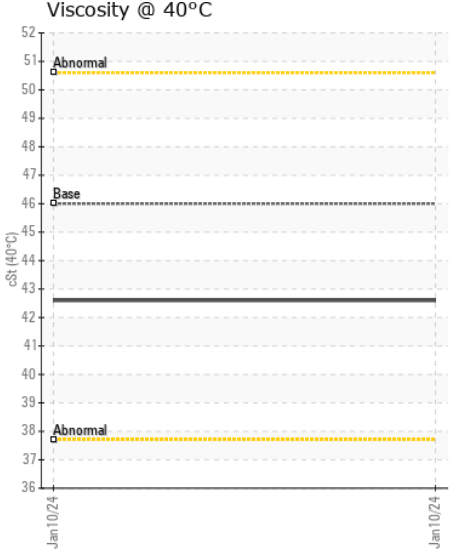
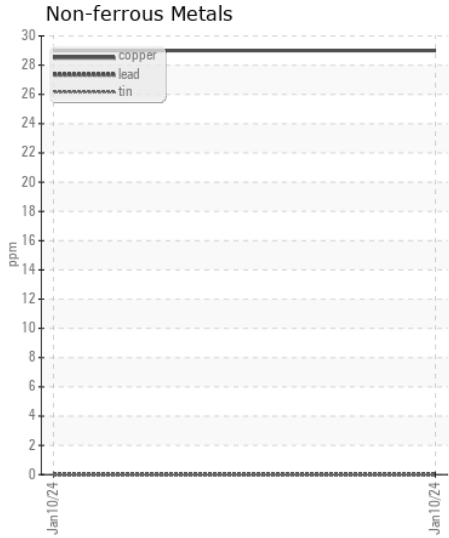
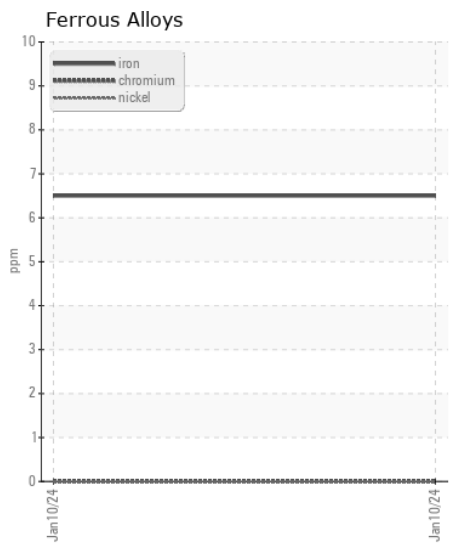
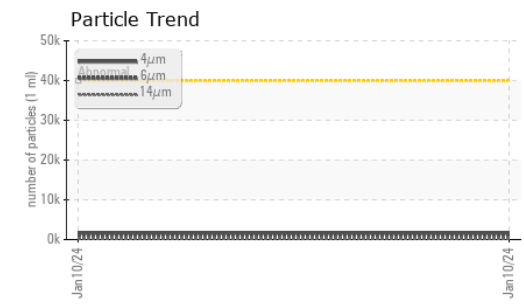
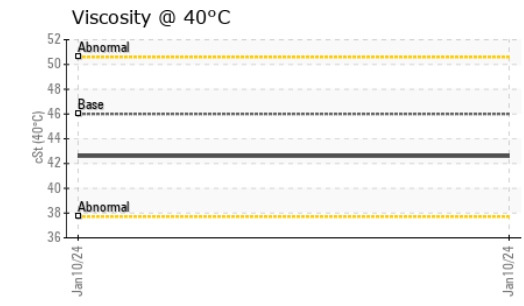
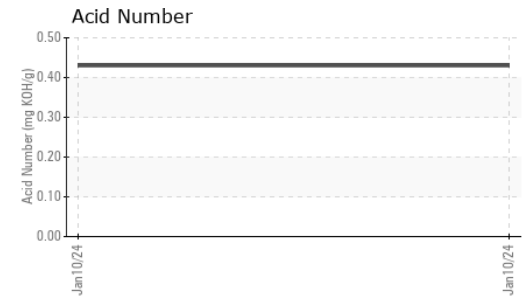
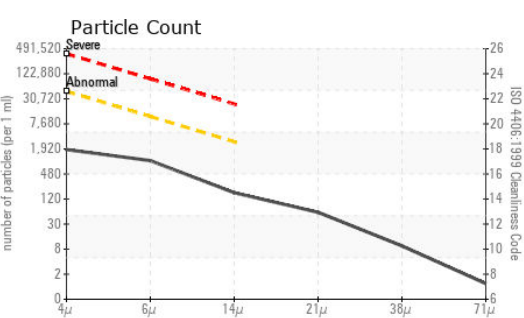
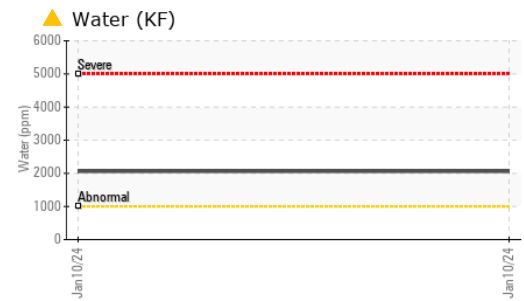
There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>50	4	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water	%	ASTM D6304	>0.1	▲ 0.206	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ 2060	---	---
Particles >4µm		ASTM D7647	>40000	1618	---	---
Particles >6µm		ASTM D7647	>10000	881	---	---
Particles >14µm		ASTM D7647	>2500	150	---	---
Particles >21µm		ASTM D7647	>640	51	---	---
Particles >38µm		ASTM D7647	>160	8	---	---
Particles >71µm		ASTM D7647	>40	1	---	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	18/17/14	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	0.2%	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	14	0	---	---
Barium	ppm	ASTM D5185m	0.0	0	---	---
Molybdenum	ppm	ASTM D5185m	0.0	0	---	---
Manganese	ppm	ASTM D5185m	0.0	0	---	---
Magnesium	ppm	ASTM D5185m	2.6	0	---	---
Calcium	ppm	ASTM D5185m	49	64	---	---
Phosphorus	ppm	ASTM D5185m	354	407	---	---
Zinc	ppm	ASTM D5185m	419	515	---	---
Sulfur	ppm	ASTM D5185m	3719	1082	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.43	---	---
Visc @ 40°C	cSt	ASTM D445	46	42.6	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0001550 **Received** : 12 Jan 2024
Lab Number : 06059242 **Diagnosed** : 18 Jan 2024
Unique Number : 10830624 **Diagnostician** : Jonathan Hester
Test Package : MOBCE (Additional Tests: KF)

ENVIRONMENTAL HOLDINGS GROUP LLC
 4000 TRIANGLE LANE SUITE 160
 EXPORT, PA
 US 15632
 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)

T:
F: