



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL



Machine Id  
**VOLVO A40G 353033**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009449	ASC0002628	VCP414382
Sample Date		Client Info		03 Jul 2024	17 Nov 2023	30 Aug 2023
Machine Age	hrs	Client Info		4015	2964	4015
Oil Age	hrs	Client Info		1221	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	9	6	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	5	3	4
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	3	2	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	6	4	9
Tin	ppm	ASTM D5185m	>20	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

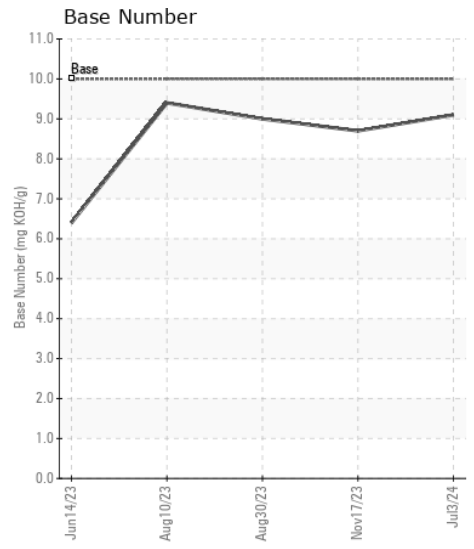
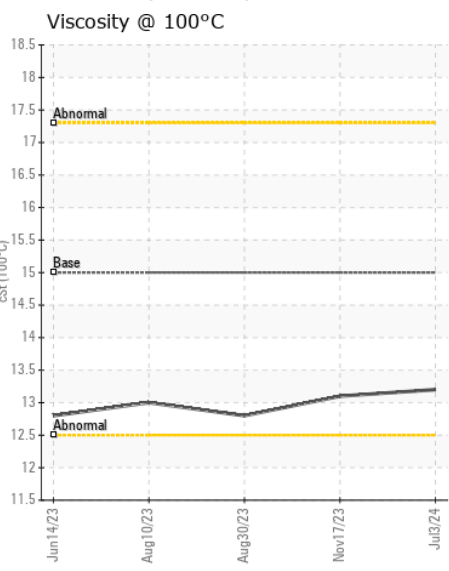
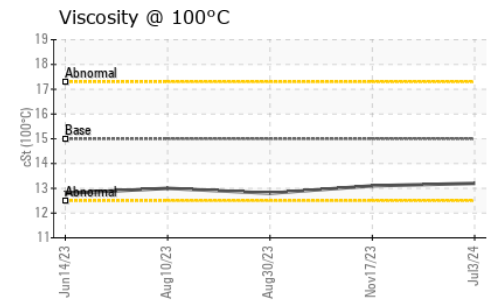
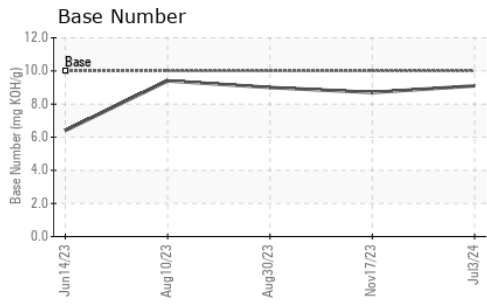
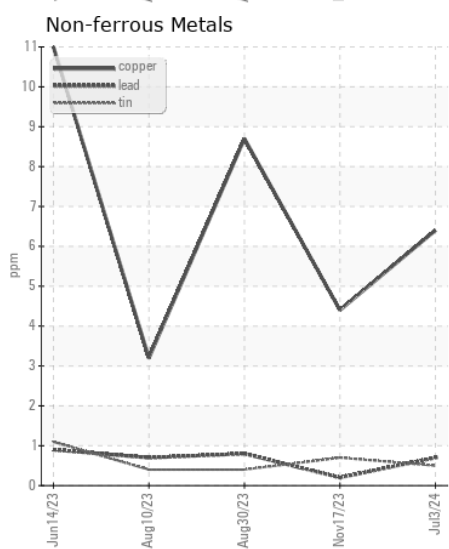
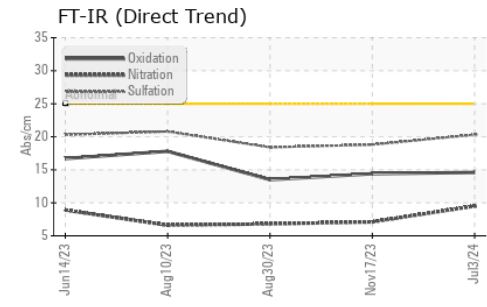
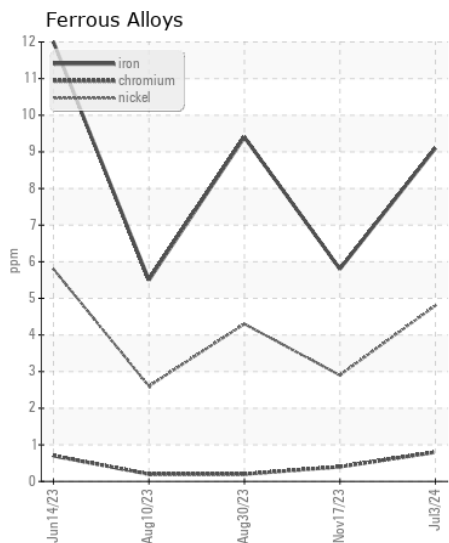
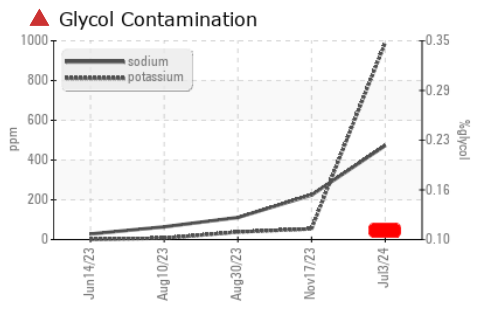
Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>20	10	6	4
Potassium	ppm	ASTM D5185m	>20	▲ 990	▲ 54	38
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.12	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.5	7.1	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	18.8	18.4
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 BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		▲ 473	▲ 224	● 111
Boron	ppm	ASTM D5185m	2.5	1	3	7
Barium	ppm	ASTM D5185m	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m	0.7	112	61	66
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	921	894	997
Calcium	ppm	ASTM D5185m	2057	1109	1190	1200
Phosphorus	ppm	ASTM D5185m	935	1094	1036	1034
Zinc	ppm	ASTM D5185m	1223	1248	1206	1308
Sulfur	ppm	ASTM D5185m	4079	2983	2704	3810
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	14.4	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.1	8.7	9.0
Visc @ 100°C	cSt	ASTM D445	15.0	13.2	13.1	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009449 **Received** : 16 Jul 2024  
**Lab Number** : 06238653 **Tested** : 19 Jul 2024  
**Unique Number** : 11127487 **Diagnosed** : 19 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

**117 - ASCENDUM MACHINERY INC - GREENVILLE**  
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 Contact: ALLEN WILLIAMS  
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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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