# **ASCENDUM**

# **PROBLEM SUMMARY**

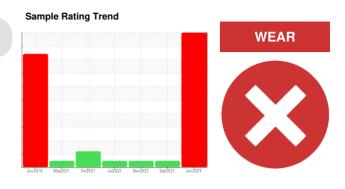
Area

# Ascendum Machinery VOLVO EC380E EX-02 (S/N 310020)

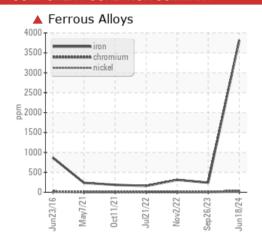
Component Left Travel

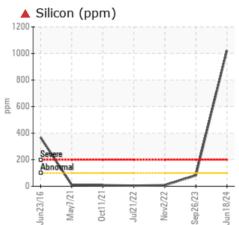
Fluid

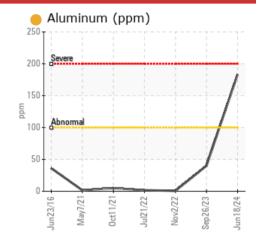
VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)



## COMPONENT CONDITION SUMMARY







#### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS									
Sample Status				SEVERE	NORMAL	NORMAL			
Iron	ppm	ASTM D5185m	>1200	<b>▲</b> 3814	240	311			
Chromium	ppm	ASTM D5185m	>20	<b>4</b> 32	4	4			
Silicon	ppm	ASTM D5185m	>100	<b>1023</b>	82	8			

Customer Id: CARCONVC Sample No.: ASC0009773 Lab Number: 06217160 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED A	CTIONS			
Action	Status	Date	Done By	Description
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.
Resample			?	We recommend an early resample to monitor this condition.
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.

## HISTORICAL DIAGNOSIS

## 26 Sep 2023 Diag: Don Baldridge

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



### NORMAL

### 02 Nov 2022 Diag: Sean Felton

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



#### NORMAL

## 21 Jul 2022 Diag: Don Baldridge

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Confirm oil type. The condition of the oil is acceptable for the time in service.





# **ASCENDUM**

# **OIL ANALYSIS REPORT**

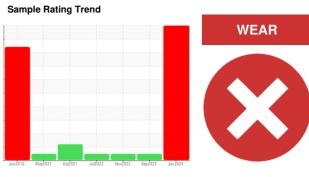
Area

# Ascendum Machinery VOLVO EC380E EX-02 (S/N 310020)

Left Travel

Fluid

**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)** 



## DIAGNOSIS

#### Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

#### A Wear

Gear wear is indicated.

#### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

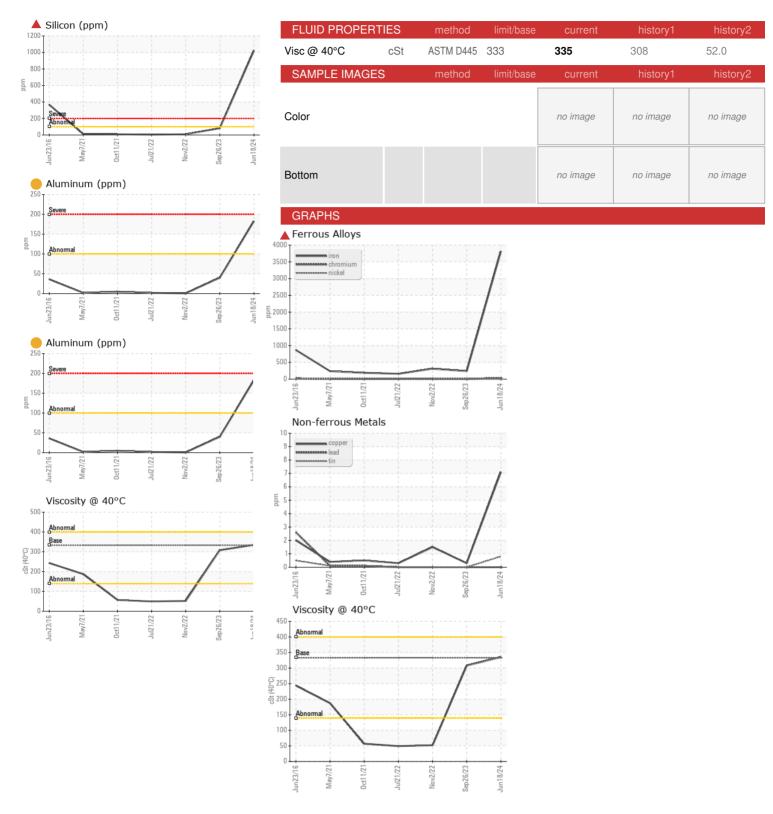
#### **Fluid Condition**

The oil is no longer serviceable due to the presence of contaminants.

( GAL)						
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ASC0009773	ASC0001423	VCP000447
Sample Date		Client Info		18 Jun 2024	26 Sep 2023	02 Nov 2022
Machine Age	hrs	Client Info		11997	11014	10493
Oil Age	hrs	Client Info		983	521	555
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL
CONTAMINATION	J	method	limit/base	current	history1	history2
Water		WC Method	>0.25	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>1200	▲ 3814	240	311
Chromium	ppm	ASTM D5185m	>20	<b>△</b> 32	4	4
Nickel	ppm	ASTM D5185m	>5	3	1	1
itanium	ppm	ASTM D5185m		19	2	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>100	<u> </u>	40	<1
_ead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>50	7	<1	2
Fin	ppm	ASTM D5185m	>5	, <1	0	0
/anadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	111	219	212	187
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.9	4	<1	2
Manganese	ppm	ASTM D5185m	0.0	26	3	7
Magnesium	ppm	ASTM D5185m	39	19	6	<1
Calcium	ppm	ASTM D5185m	93	102	30	62
Phosphorus						
	ppm	ASTM D5185m	920	1118	1055	2322
	ppm	ASTM D5185m ASTM D5185m	920 104	1118 33	1055 7	2322 24
Zinc	ppm ppm			_		
Zinc	ppm	ASTM D5185m	104	33	7	24 32511
Zinc Sulfur CONTAMINANTS	ppm	ASTM D5185m ASTM D5185m	104 20179	33 35381	7 30726	24 32511
Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m method	104 20179 limit/base	33 35381 current	7 30726 history1	24 32511 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	104 20179 limit/base	33 35381 current 1023	7 30726 history1 82	24 32511 history2
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	104 20179 limit/base >100	33 35381 current ▲ 1023 16	7 30726 history1 82 2	24 32511 history2 8 4
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	104 20179 limit/base >100 >20	33 35381 current 1023 16 29	7 30726 history1 82 2 2	24 32511 history2 8 4
Cinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	104 20179 limit/base >100 >20 limit/base	33 35381 current ▲ 1023 16 29 current	7 30726 history1 82 2 2 history1	24 32511 history2 8 4 1 history2
Cinc Gulfur CONTAMINANTS Gilicon Godium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	104 20179 limit/base >100 >20 limit/base NONE	33 35381 current ▲ 1023 16 29 current NONE	7 30726 history1 82 2 2 history1 NONE	24 32511 history2 8 4 1 history2 LIGHT
Cinc Gulfur  CONTAMINANTS Gilicon Godium Potassium  VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	104 20179 limit/base >100 >20 limit/base NONE NONE	33 35381 current ▲ 1023 16 29 current NONE	7 30726 history1 82 2 2 history1 NONE NONE	24 32511 history2 8 4 1 history2 LIGHT NONE
Cinc Gulfur CONTAMINANTS Gilicon Godium Potassium VISUAL White Metal Cellow Metal Precipitate Gilt	ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m wethod *Visual *Visual *Visual	limit/base >100 >20 limit/base NONE NONE NONE	33 35381  current  ▲ 1023 16 29  current  NONE NONE NONE	7 30726 history1 82 2 2 history1 NONE NONE NONE	24 32511 history2 8 4 1 history2 LIGHT NONE NONE
Zinc Gulfur CONTAMINANTS Gilicon Godium Potassium VISUAL White Metal Yellow Metal Precipitate Gilt Debris	ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  wethod  *Visual  *Visual  *Visual  *Visual	104 20179 limit/base >100 >20 limit/base NONE NONE NONE	33 35381  current  1023 16 29  current  NONE NONE NONE NONE	7 30726 history1 82 2 2 history1 NONE NONE NONE NONE	24 32511 history2 8 4 1 history2 LIGHT NONE NONE LIGHT
Zinc Gulfur CONTAMINANTS Gilicon Godium Potassium VISUAL White Metal Yellow Metal Precipitate Gilt Debris Gand/Dirt	ppm ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	104 20179 limit/base >100 >20 limit/base NONE NONE NONE NONE NONE NONE	33 35381  current  1023 16 29  current  NONE NONE NONE NONE NONE NONE NONE	7 30726 history1 82 2 2 history1 NONE NONE NONE NONE NONE NONE	24 32511 history2 8 4 1 history2 LIGHT NONE NONE LIGHT NONE
Zinc Gulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >100 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	33 35381  current  1023 16 29  current  NONE NONE NONE NONE NONE NONE NONE NO	7 30726 history1 82 2 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	24 32511 history2 8 4 1 history2 LIGHT NONE NONE LIGHT NONE NONE
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m wethod *Visual	limit/base >100 >20 limit/base >100 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	33 35381  current  1023 16 29  current  NONE NONE NONE NONE NONE NONE NONE NO	7 30726 history1 82 2 2 history1 NONE NONE NONE NONE NONE NONE NONE NON	24 32511 history2 8 4 1 history2 LIGHT NONE NONE LIGHT NONE NONE LIGHT NONE NONE

# **ASCENDUM**

# **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : ASC0009773 Lab Number : 06217160

Unique Number : 11090024 Test Package : CONST

Received **Tested** 

: 21 Jun 2024 : 24 Jun 2024

Diagnosed : 24 Jun 2024 - Sean Felton

1036 BRANCHVIEW DR, SUITE 106 CONCORD, NC US 28025

> Contact: KEVIN LADGERWOOD kevin@carlinaexcavation.com T:

**CAROLINA EXCAVATING** 

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)

Report Id: CARCONVC [WUSCAR] 06217160 (Generated: 07/03/2024 13:46:49) Rev: 1

Submitted By: CLAYTON SMITH

F: