

Sample No: VCP445726

**Oil Type:** GEAR OIL SAE 90W140

**Job No:** SWO-067551

SAMPLE	INFORMATION				
Sample Number		VCP445726	VCP380802	VCP388304	VCP357759
Sample Date		16 Nov 2023	16 Jan 2023	05 Oct 2022	25 Mar 2022
Machine Hours		8510	7568	7067	6010
Oil Hours		0	0	0	0
Oil Changed		Changed	Not Changd	Not Changd	Changed
Sample Status		SEVERE	SEVERE	SEVERE	SEVERE
OIL CON	DITION				
_	<u> </u>				
Visc @ 40°C	cSt	■363	■357	■337	■337
VOLVO					
CONTAN	MINATION				
Water	%	0.220	NEG	NEG	NEG
Silicon	ppm	735	939	513	1247
Sodium	ppm	<b>0</b>	<b>3</b> 3	<b>1</b> 2	12-17
Potassium	ppm	<b>22</b>	21	<b>1</b> 2	<b>3</b> 2
	РРШ		<u></u>	12	J
VOLVO					
WEAR N	METALS				
Iron	ppm	<b>3003</b>	3197	1832	1804
Copper	ppm	■8	■8	<b>4</b>	<b>□</b> 3
Lead	ppm	<b>0</b>	<b>2</b>	<u> </u>	<b>-</b> <1
Tin	ppm	■0	<b>1</b>	<b>0</b>	■0
Aluminum	ppm	<b>△</b> 93	<u></u> 168	<b>9</b> 2	<u>^</u> 253
Chromium	ppm	<u> </u>	<b>2</b> 5	<b>▲</b> 14	<b>1</b> 9
Molybdenum	ppm	<b>5</b>	<b>4</b>	3	2
Nickel	ppm	■3	<b>5</b>	2	<1
Titanium	ppm	8	■12	7	■17
Silver	ppm	0	<b>0</b>	0	<1
Manganese	ppm	<b>17</b>	■18	11	15
Vanadium	ppm	<1	<1	<1	<1
VOLVO					
ADDITIV	ZES				
Calcium		<b>410</b>	<b>275</b>	97	118
Magnesium	ppm	<b>60</b>	41	20	27
Zinc	ppm	<b>■</b> 80	■ 41 ■38	42	27
Phosphorus	ppm	1057	913	905	1011
Barium	ppm	<b>■</b> 0	0	2	0
Boron	ppm	<b>191</b>	157	140	166
ווטוטו	ppm	<b>131</b>	13/	140	100

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## WHITAKER CONTRACTING

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F:

## Diagnosis

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. High concentration of visible metal present. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress. There is a light concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot:WHIGUNUnique No:10754609Signed:Jonathan HesterReport Date:27 Nov 2023



## **CONSTRUCTION EQUIPMENT**





