



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**Port Main Engine (S/N T2P01011)**  
Component  
**Port Main Engine**  
Fluid  
**CAT DIESEL ENGINE OIL 15W40 (68 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0829973</b>	WC0829969	WC0754142
Sample Date		Client Info		<b>27 Apr 2024</b>	15 Oct 2023	08 Jun 2023
Machine Age	hrs	Client Info		<b>19500</b>	19000	18000
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>28</b>	28	18
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>300	<b>6</b>	12	13
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

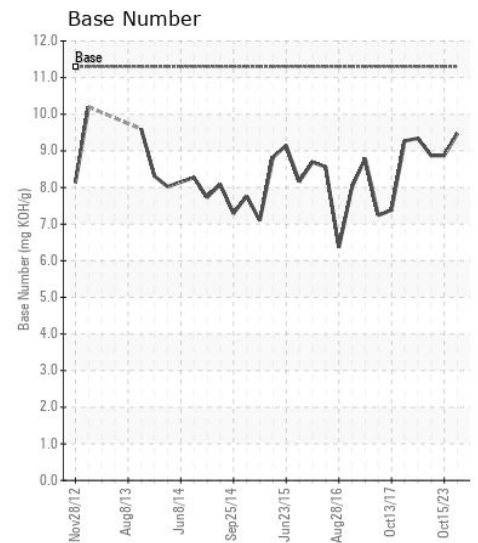
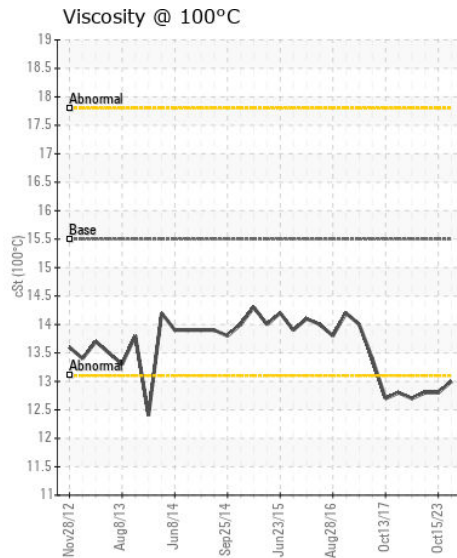
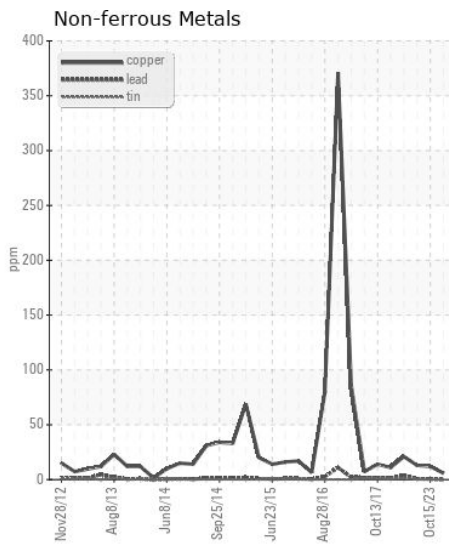
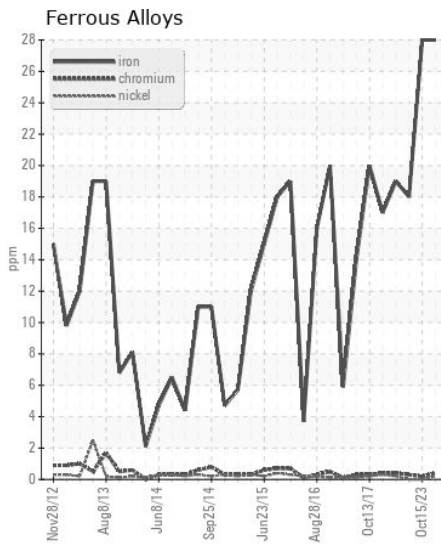
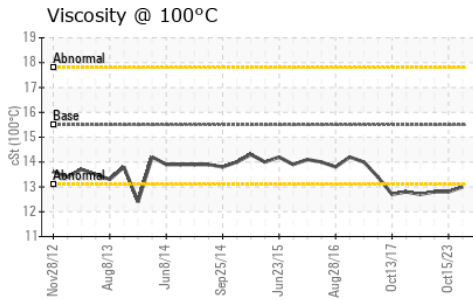
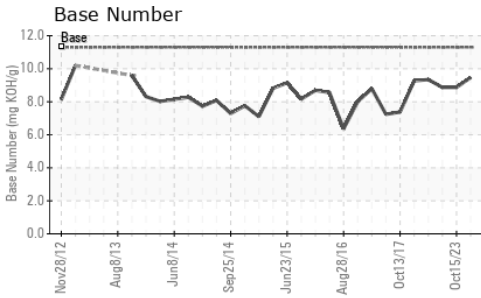
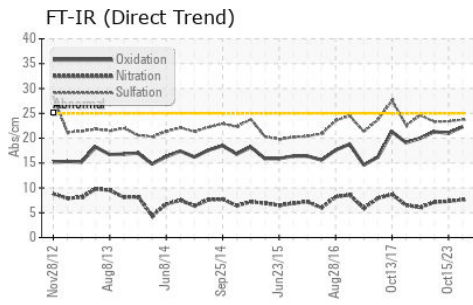
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	3	4
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.6</b>	7.3	7.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.7</b>	23.4	23.3
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	3
Boron	ppm	ASTM D5185(m)		<b>47</b>	44	44
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>41</b>	44	39
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>506</b>	523	519
Calcium	ppm	ASTM D5185(m)		<b>1727</b>	1756	1676
Phosphorus	ppm	ASTM D5185(m)		<b>882</b>	929	960
Zinc	ppm	ASTM D5185(m)	1460	<b>1083</b>	1100	1081
Sulfur	ppm	ASTM D5185(m)		<b>2374</b>	2413	2371
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>22.3</b>	21.0	21.3
Base Number (BN)	mg KOH/g	ASTM D2896*	11.3	<b>9.47</b>	8.87	8.87
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>13.0</b>	12.8	12.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0829973  
**Lab Number** : 02643063  
**Unique Number** : 5800602  
**Test Package** : MAR 2

**Received** : 20 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Wes Davis

**CANADIAN COAST GUARD**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.