



# OIL ANALYSIS REPORT

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

Machine Id  
**16 MCADAM AVENUE**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## RECOMMENDATION

We advise that you check for the source of water entry. We advise that you monitor for an abnormal oil pressure drop and noise. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

## WEAR

Lead ppm levels are severe. Iron ppm levels are marginal. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

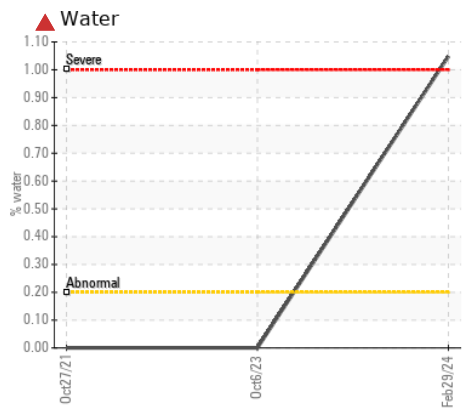
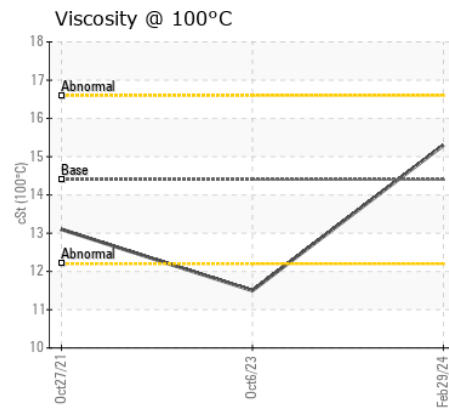
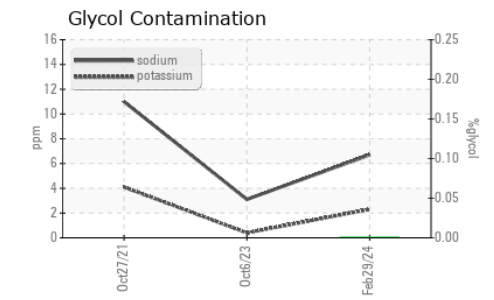
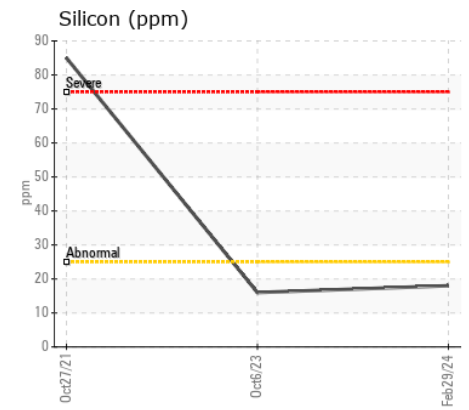
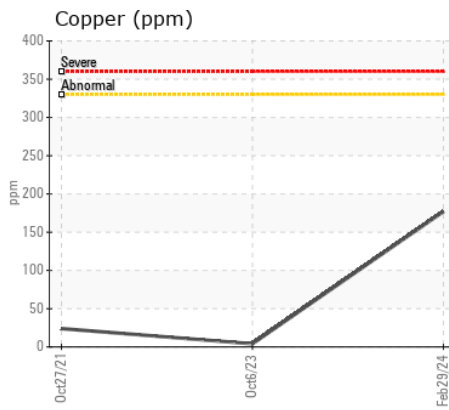
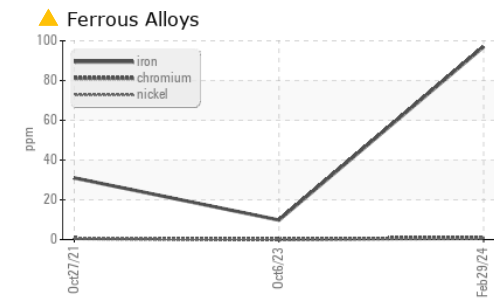
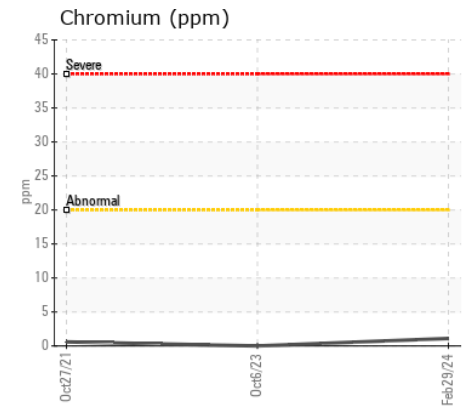
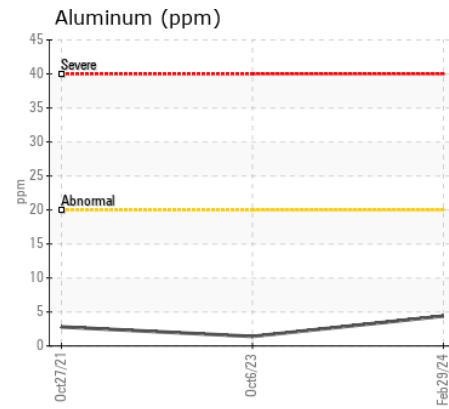
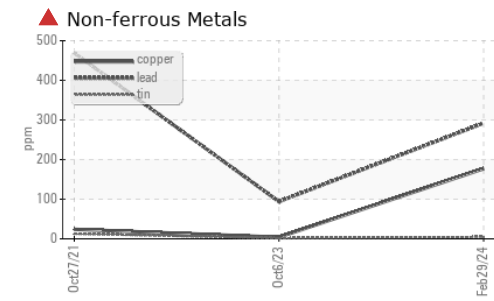
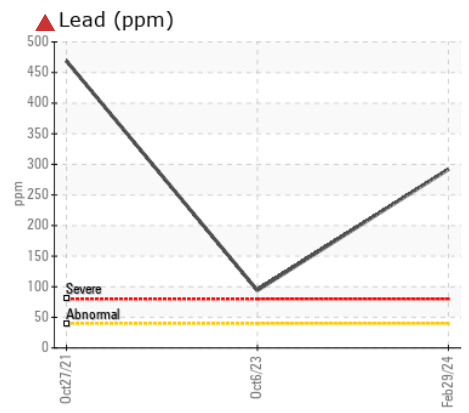
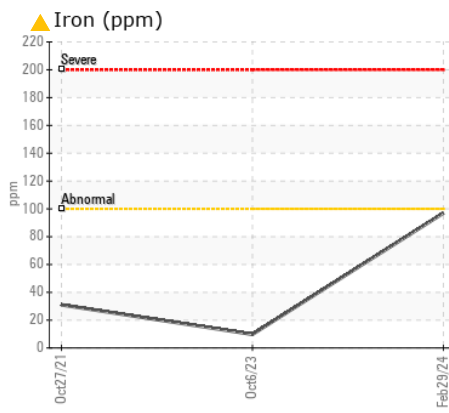
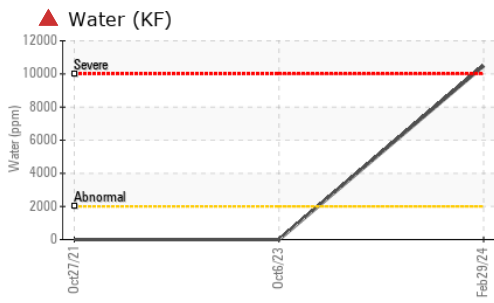
## CONTAMINATION

There is a high concentration of water present in the oil. Test for glycol is negative.

## FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0910585</b>	WC0795015	WC0606463
Sample Date		Client Info		<b>29 Feb 2024</b>	06 Oct 2023	27 Oct 2021
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE
PQ		ASTM D8184*		<b>0</b>	---	---
Iron	ppm	ASTM D5185(m)	>100	<b>▲ 97</b>	10	31
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	1	3
Lead	ppm	ASTM D5185(m)	>40	<b>▲ 292</b>	▲ 94	▲ 469
Copper	ppm	ASTM D5185(m)	>330	<b>177</b>	4	24
Tin	ppm	ASTM D5185(m)	>15	<b>5</b>	1	13
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silicon	ppm	ASTM D5185(m)	>25	<b>18</b>	16	▲ 85
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.7	<1.0
Water	%	ASTM D6304*	>0.2	<b>▲ 1.048</b>	---	---
ppm Water	ppm	ASTM D6304*	>2000	<b>▲ 10488</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>19.2</b>	5.8	7.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>35.0</b>	16.7	19.8
Emulsified Water	scalar	Visual*	>0.2	<b>▲ .2%</b>	NEG	NEG
Sodium	ppm	ASTM D5185(m)	>216	<b>7</b>	3	11
Boron	ppm	ASTM D5185(m)	250	<b>170</b>	36	33
Barium	ppm	ASTM D5185(m)	10	<b>1</b>	<1	2
Molybdenum	ppm	ASTM D5185(m)	100	<b>81</b>	57	54
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	3
Magnesium	ppm	ASTM D5185(m)	450	<b>917</b>	600	664
Calcium	ppm	ASTM D5185(m)	3000	<b>1455</b>	950	1321
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1085</b>	643	915
Zinc	ppm	ASTM D5185(m)	1350	<b>1562</b>	774	1099
Sulfur	ppm	ASTM D5185(m)	4250	<b>2693</b>	1765	2442
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>49.7</b>	10.7	13.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>15.3</b>	▲ 11.5	13.1



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0910585  
**Lab Number** : 02625615  
**Unique Number** : 5750734  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF, PQ )

**Received** : 01 Apr 2024  
**Tested** : 02 Apr 2024  
**Diagnosed** : 02 Apr 2024 - Kevin Marson

**NORTHERN GENERATOR CO. LTD.**  
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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.