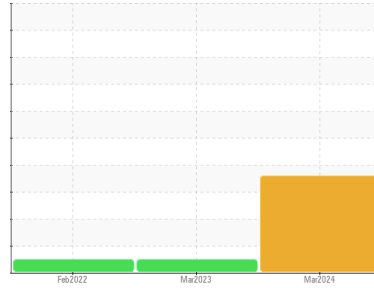




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**333 MARKET DRIVE GEN #2**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA XR 4 SAE 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the fuel injection system. 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

Chromium ppm levels are abnormal. Ring wear is indicated.

### ▲ Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### ▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0910598</b>	WC0795024	WC0647855
Sample Date	Client Info	<b>07 Mar 2024</b>	23 Mar 2023	28 Feb 2022
Machine Age	hrs	<b>0</b>	0	77
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed
Sample Status		<b>SEVERE</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	<b>12</b>	2	3
Chromium	ppm ASTM D5185(m) >20	<b>▲ 28</b>	0	<1
Nickel	ppm ASTM D5185(m) >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	1	14
Silver	ppm ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >20	<b>2</b>	2	2
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185(m) >330	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >15	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	<1
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 1	<b>4</b>	395	89
Barium	ppm ASTM D5185(m) 1	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 1	<b>53</b>	81	68
Manganese	ppm ASTM D5185(m)	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185(m) 10	<b>888</b>	363	177
Calcium	ppm ASTM D5185(m) 3032	<b>969</b>	1516	1897
Phosphorus	ppm ASTM D5185(m) 1054	<b>923</b>	1082	922
Zinc	ppm ASTM D5185(m) 1332	<b>1061</b>	1169	1050
Sulfur	ppm ASTM D5185(m) 3985	<b>2580</b>	2875	3037
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>24</b>	7	8
Sodium	ppm ASTM D5185(m)	<b>5</b>	2	3
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Fuel	% ASTM D7593* >5	<b>▲ 8.6</b>	<1.0	<1.0

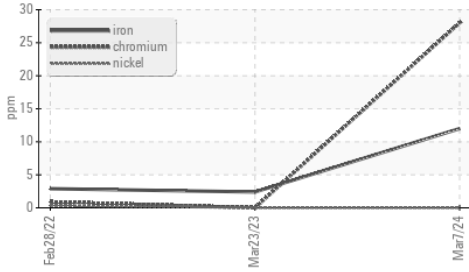
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0</b>	0	0
Nitration	Abs/cm ASTM D7624* >20	<b>5.1</b>	5.2	8.0
Sulfation	Abs./1mm ASTM D7415* >30	<b>17.8</b>	22.2	19.0

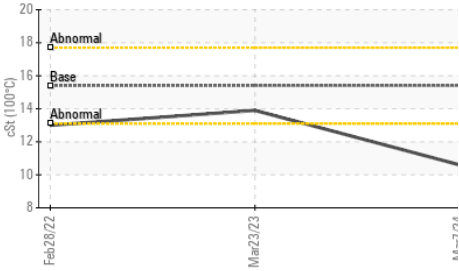


# OIL ANALYSIS REPORT

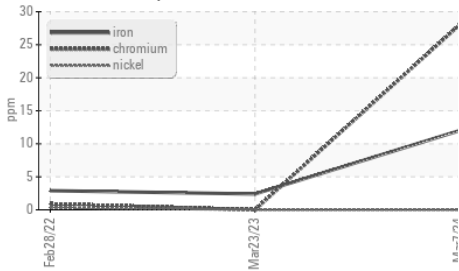
### ▲ Ferrous Alloys



### ▲ Viscosity @ 100°C



### ▲ Ferrous Alloys



### FLUID DEGRADATION

method	limit/base	current	history1	history2
Abs/.1mm	ASTM D7414*	>25	13.9	12.9

### VISUAL

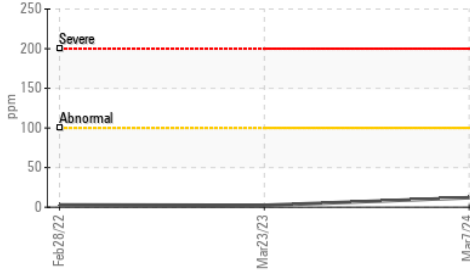
method	limit/base	current	history1	history2
scalar	Visual*	>0.2	NEG	NEG
scalar	Visual*	NEG	NEG	NEG

### FLUID PROPERTIES

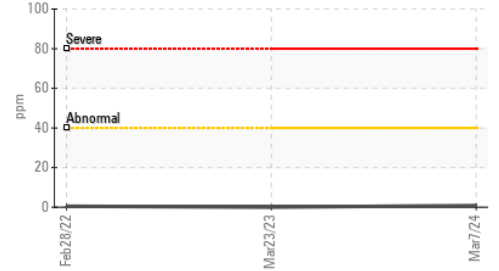
method	limit/base	current	history1	history2
cSt	ASTM D7279(m)	▲ 10.6	13.9	13.0

### GRAPHS

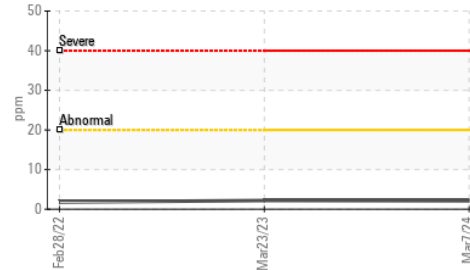
#### Iron (ppm)



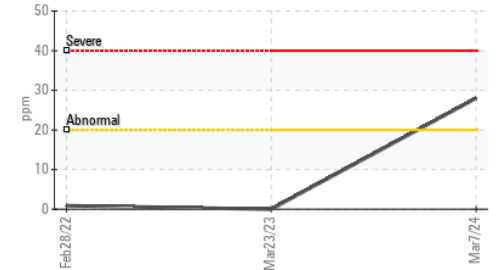
#### Lead (ppm)



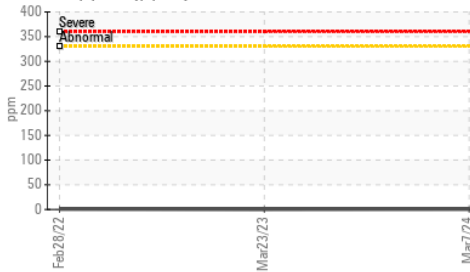
#### Aluminum (ppm)



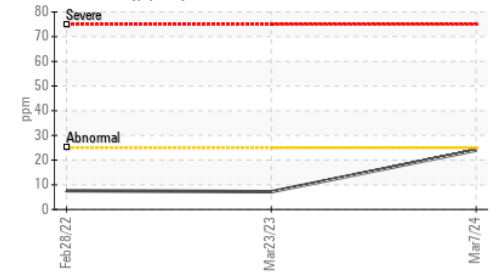
#### ▲ Chromium (ppm)



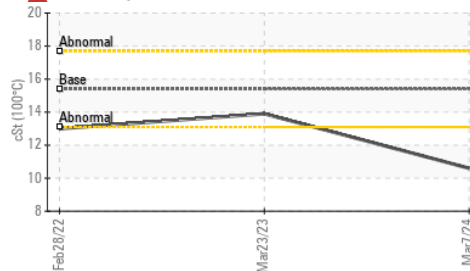
#### Copper (ppm)



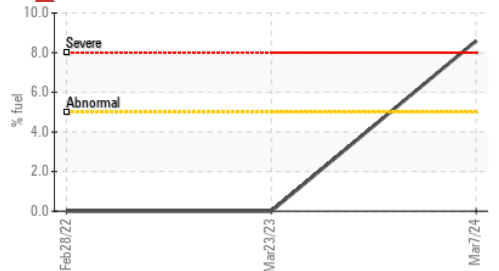
#### Silicon (ppm)



### ▲ Viscosity @ 100°C



### ▲ Fuel Dilution



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0910598  
**Lab Number** : 02625608  
**Unique Number** : 5750727  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**NORTHERN GENERATOR CO. LTD.**  
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 selome@northerngenerator.com  
 T: (905)264-9744  
 F: (905)264-9714

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.