



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
930 HORTOP PUMP #4
 Component
Diesel Engine
 Fluid
PETRO CANADA XR 4 SAE 15W40 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
 Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0795038	WC	---
Sample Date		Client Info		29 Mar 2023	29 Mar 2023	---
Machine Age	yrs	Client Info		0	0	---
Oil Age	yrs	Client Info		1	0	---
Filter Age	yrs	Client Info		1	0	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	4	6	---
Chromium	ppm	ASTM D5185(m)	>20	0	0	---
Nickel	ppm	ASTM D5185(m)	>4	0	0	---
Titanium	ppm	ASTM D5185(m)		23	1	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	2	<1	---
Lead	ppm	ASTM D5185(m)	>40	2	2	---
Copper	ppm	ASTM D5185(m)	>330	<1	4	---
Tin	ppm	ASTM D5185(m)	>15	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		<1	0	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

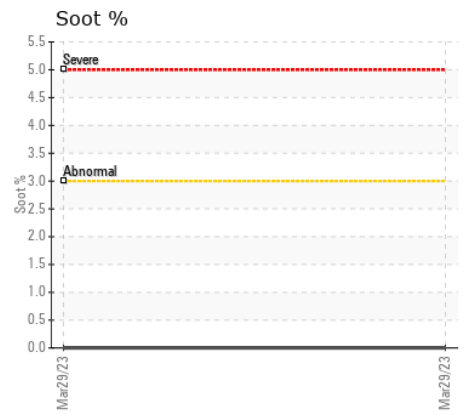
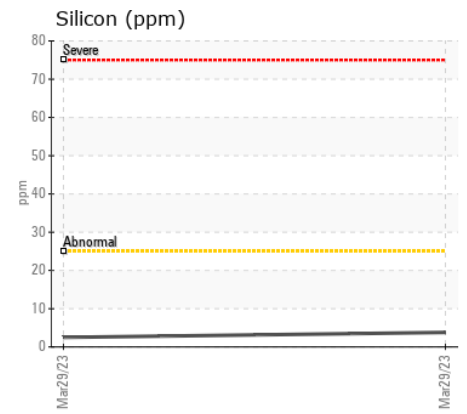
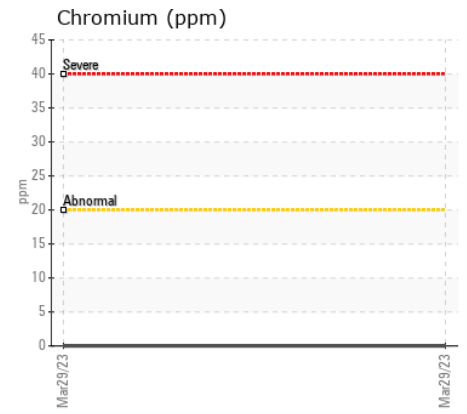
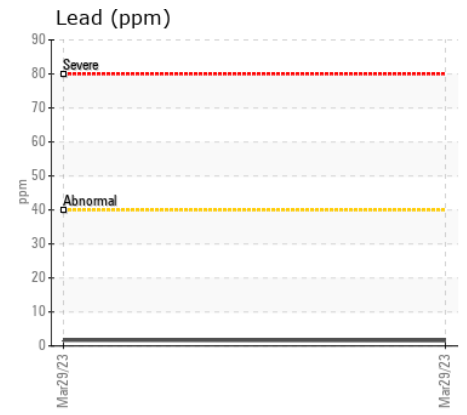
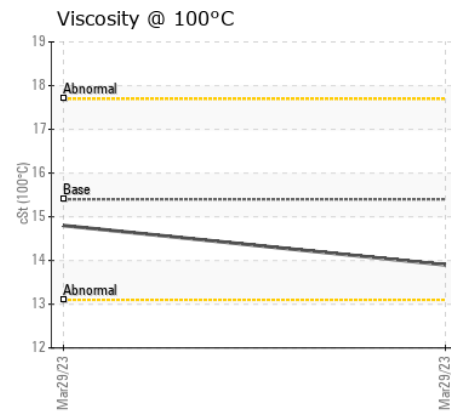
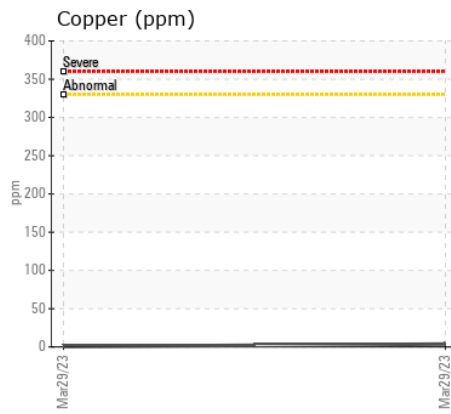
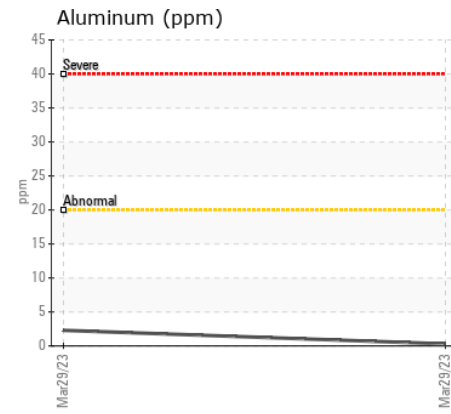
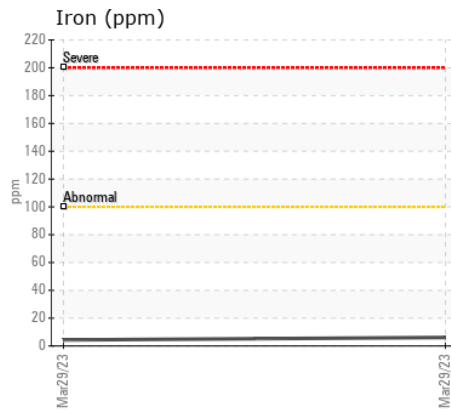
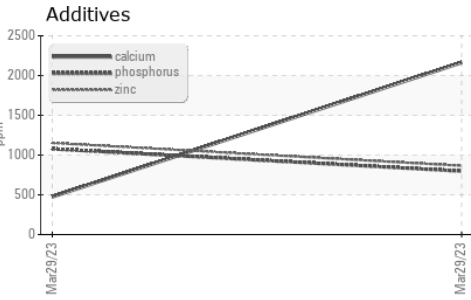
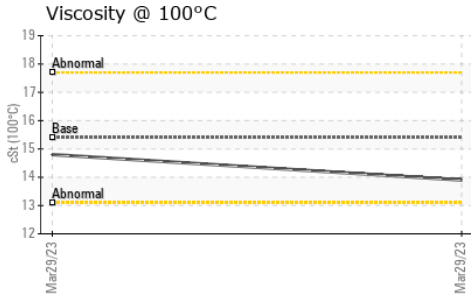
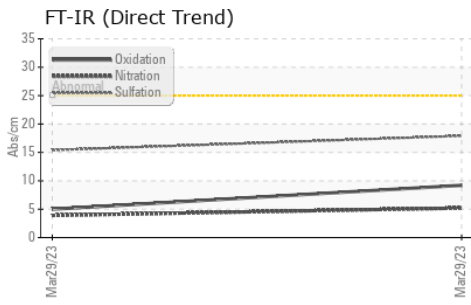
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	4	---
Potassium	ppm	ASTM D5185(m)	>20	1	0	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	5.2	3.9	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.9	15.4	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
 The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	<1	---
Boron	ppm	ASTM D5185(m)	1	35	12	---
Barium	ppm	ASTM D5185(m)	1	0	0	---
Molybdenum	ppm	ASTM D5185(m)	1	4	4	---
Manganese	ppm	ASTM D5185(m)		<1	0	---
Magnesium	ppm	ASTM D5185(m)	10	202	1202	---
Calcium	ppm	ASTM D5185(m)	3032	2163	474	---
Phosphorus	ppm	ASTM D5185(m)	1054	797	1078	---
Zinc	ppm	ASTM D5185(m)	1332	865	1152	---
Sulfur	ppm	ASTM D5185(m)	3985	2565	8897	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.2	5.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	14.8	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0795038
Lab Number : 02548603
Unique Number : 5553613
Test Package : MOB 1 (Additional Tests: Visual)

Received : 30 Mar 2023
Tested : 30 Mar 2023
Diagnosed : 31 Mar 2023 - Kevin Marson

NORTHERN GENERATOR CO. LTD.
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 WOODBRIDGE, ON
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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.