



# OIL ANALYSIS REPORT

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

Machine Id  
**Unit #3, West FD Fan Out Board (S/N 83930)**  
 Component  
**Outboard Bearing**  
 Fluid  
**PETRO CANADA HYDREX AW 68 (15 LTR)**

## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0927094</b>	WC0805104	WC0677242
Sample Date		Client Info		<b>14 May 2024</b>	12 Dec 2023	28 Nov 2022
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>2820</b>	0	0
Filter Age	mths	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	ATTENTION

## WEAR

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

PQ		ASTM D8184*		<b>0</b>	3	0
Iron	ppm	ASTM D5185(m)	>20	<b>▲ 25</b>	▲ 28	5
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>▲ 250</b>	▲ 197	● 29
Copper	ppm	ASTM D5185(m)	>20	<b>11</b>	8	1
Tin	ppm	ASTM D5185(m)	>20	<b>2</b>	3	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

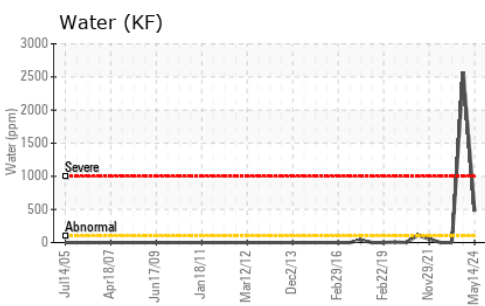
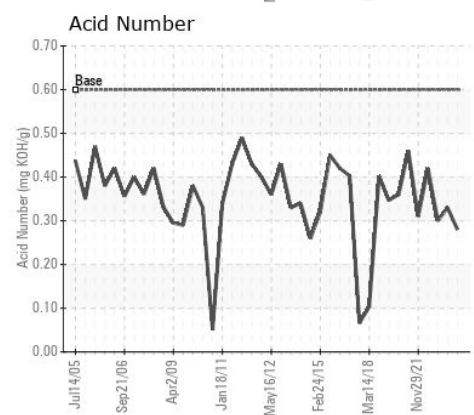
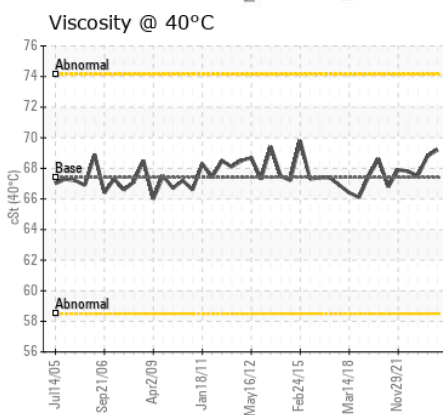
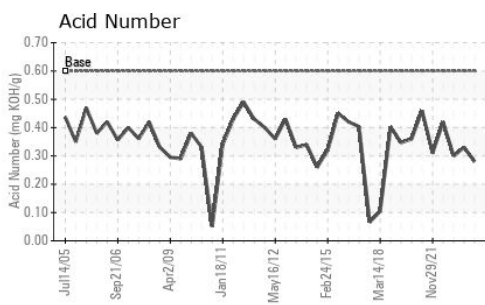
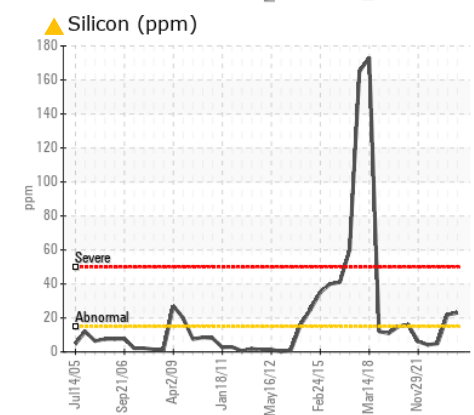
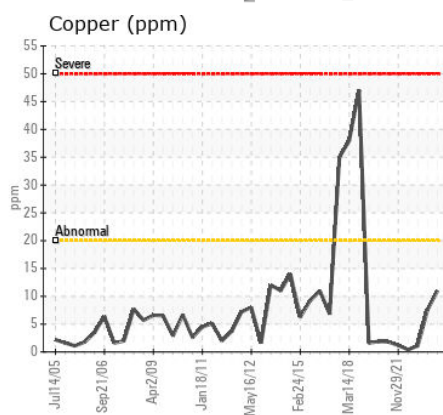
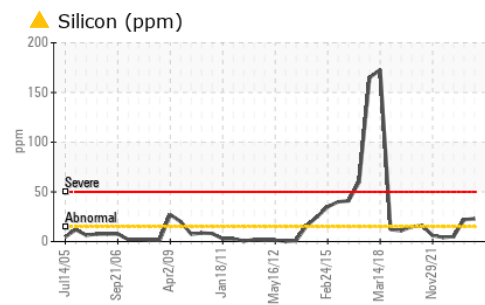
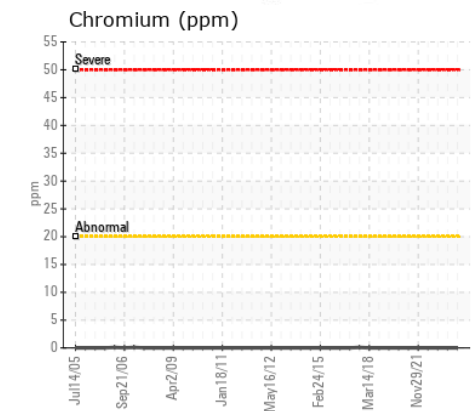
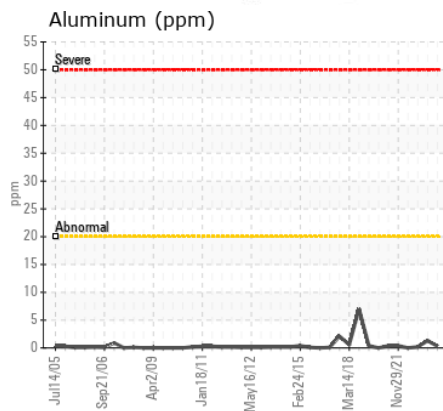
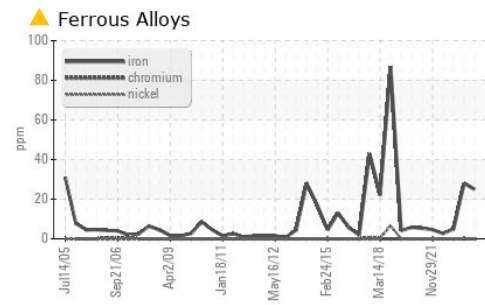
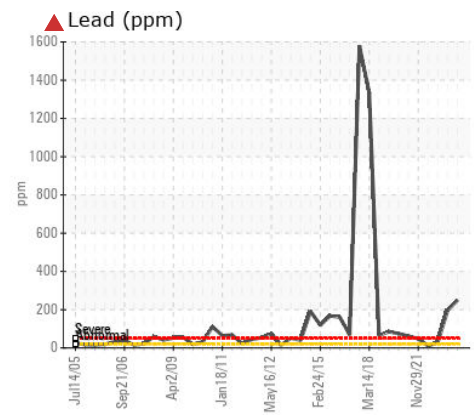
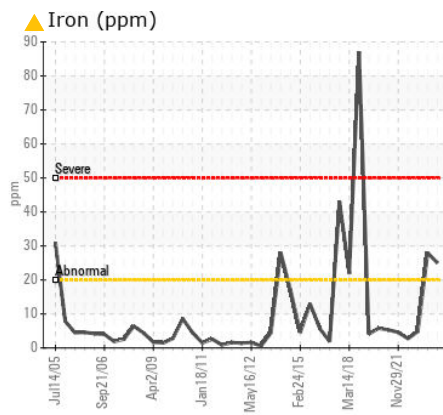
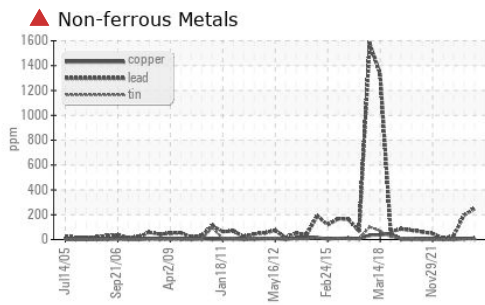
Elemental level of silicon (Si) above normal indicating ingress of seal material. The water content is negligible.

Silicon	ppm	ASTM D5185(m)	>15	<b>▲ 23</b>	▲ 22	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304*	>2	<b>0.047</b>	0.257	---
ppm Water	ppm	ASTM D6304*		<b>474</b>	2571	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>HAZY</b>	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>2	<b>.2%</b>	.5%	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	4	0
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	50	<b>11</b>	23	36
Phosphorus	ppm	ASTM D5185(m)	330	<b>294</b>	313	257
Zinc	ppm	ASTM D5185(m)	430	<b>240</b>	316	281
Sulfur	ppm	ASTM D5185(m)	760	<b>769</b>	899	3703
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	<b>0.28</b>	0.33	0.30
Visc @ 40°C	cSt	ASTM D7279(m)	67.4	<b>69.2</b>	68.8	67.5



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0927094  
**Lab Number** : 02638123  
**Unique Number** : 5787285  
**Test Package** : MOB 2 ( Additional Tests: KF, PQ )

**Received** : 28 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Kevin Marson

**NEWFOUNDLAND & LABRADOR HYDRO**  
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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.