



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**12G02#02A**  
Component  
**Starboard Steering**  
Fluid  
**PETRO CANADA HYDREX MV 32 (550 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0747557</b>	WC0742534	WC0747595
Sample Date		Client Info		<b>12 Mar 2024</b>	26 Jul 2023	02 Mar 2023
Machine Age	hrs	Client Info		<b>15656</b>	14374	13695
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>Not Changed</b>	N/A	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>60	<b>2</b>	2	2
Chromium	ppm	ASTM D5185(m)	>12	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>6	<b>0</b>	0	0
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)	>4	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>12	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>30	<b>4</b>	4	4
Tin	ppm	ASTM D5185(m)		<b>0</b>	0	0
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

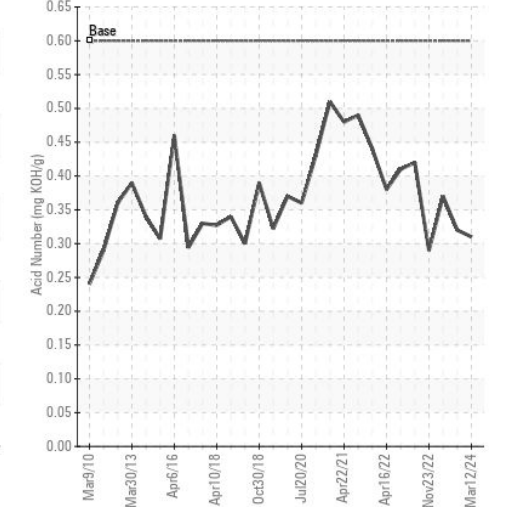
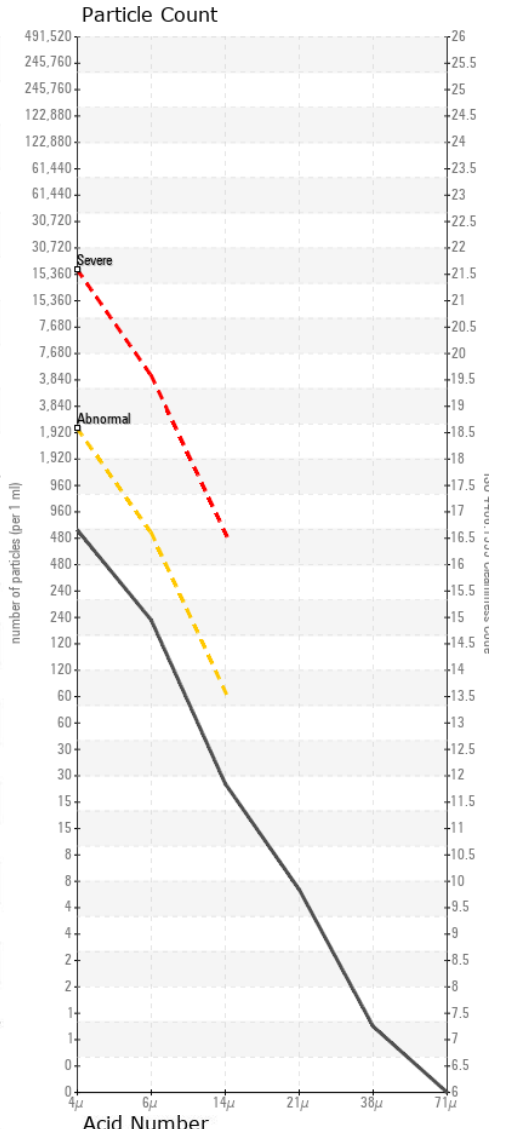
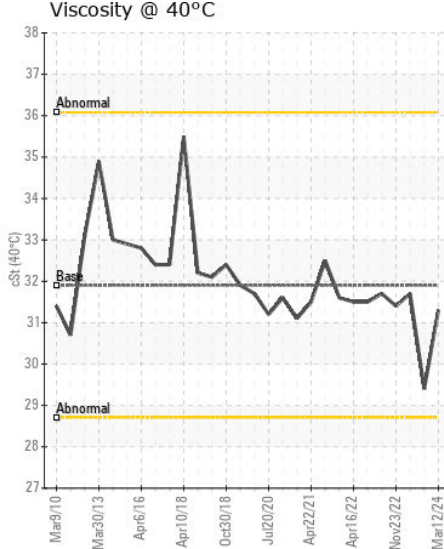
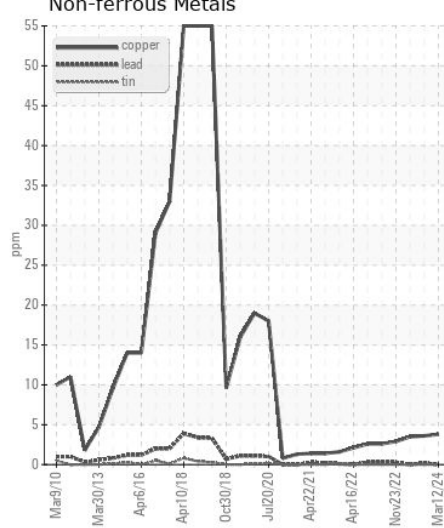
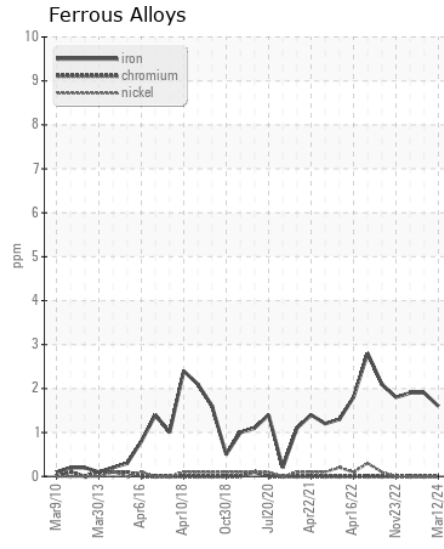
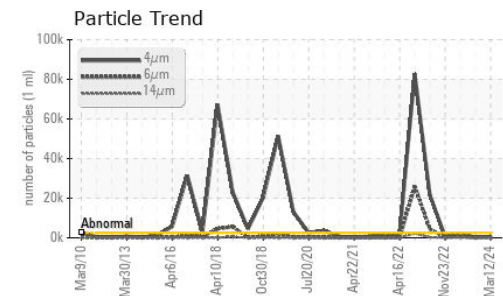
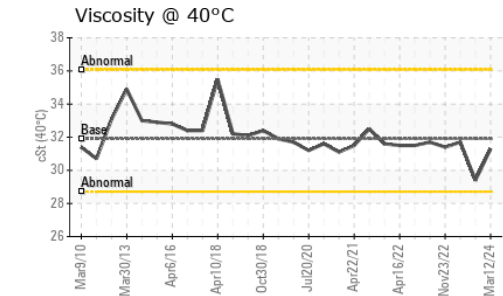
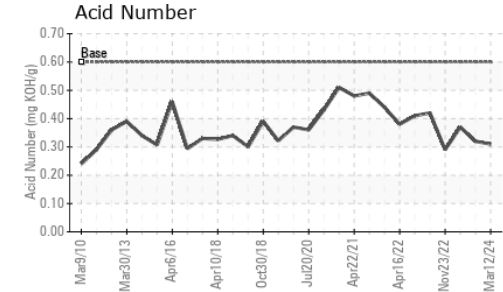
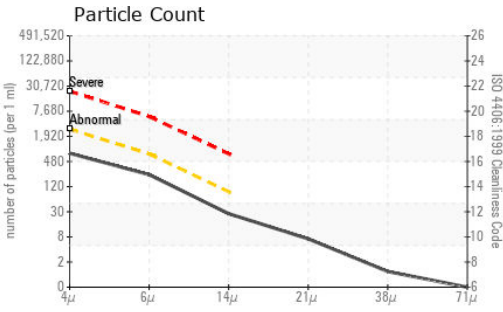
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Water		WC Method		<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>2500	<b>664</b>	393	2007
Particles >6µm		ASTM D7647	>640	<b>204</b>	100	803
Particles >14µm		ASTM D7647	>80	<b>24</b>	14	86
Particles >21µm		ASTM D7647	>20	<b>6</b>	6	19
Particles >38µm		ASTM D7647	>4	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	<b>17/15/12</b>	16/14/11	18/17/14
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185(m)	0	<b>0</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)	1	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	50	<b>52</b>	54	56
Phosphorus	ppm	ASTM D5185(m)	330	<b>320</b>	361	363
Zinc	ppm	ASTM D5185(m)	430	<b>404</b>	424	411
Sulfur	ppm	ASTM D5185(m)	760	<b>782</b>	824	851
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	<b>0.31</b>	0.32	0.37
Visc @ 40°C	cSt	ASTM D7279(m)	31.9	<b>31.3</b>	29.4	31.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0747557  
**Lab Number** : 02635288  
**Unique Number** : 5776441  
**Test Package** : MAR 2  
**Received** : 14 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 15 May 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.