



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
NORMAL
NORMAL

Area

SAMUEL RIS

Machine Id

S30-23221 Stbd Intermediate Shaft Beaing

Component

Starboard Bearing

Fluid

PETRO CANADA ENVIRON AW 68 (3 LTR)

RECOMMENDATION

We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0869836	WC0899940	WC0759202
Sample Date		Client Info		11 May 2024	29 Jan 2024	02 Nov 2023
Machine Age	hrs	Client Info		79120	78610	78110
Oil Age	hrs	Client Info		510	500	532
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

Tin ppm levels are noted. All other component wear rates are normal.

PQ		ASTM D8184*		0	0	5
Iron	ppm	ASTM D5185(m)	>20	2	5	11
Chromium	ppm	ASTM D5185(m)	>2	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	0	<1	<1
Lead	ppm	ASTM D5185(m)	>25	0	<1	<1
Copper	ppm	ASTM D5185(m)	>5	2	3	▲ 6
Tin	ppm	ASTM D5185(m)	>15	● 18	▲ 23	▲ 35
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

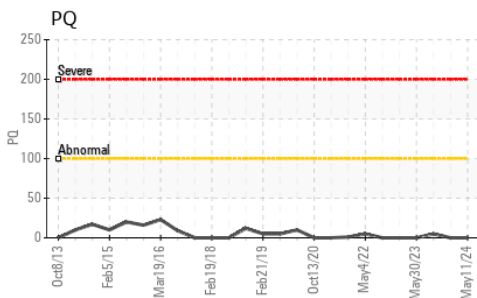
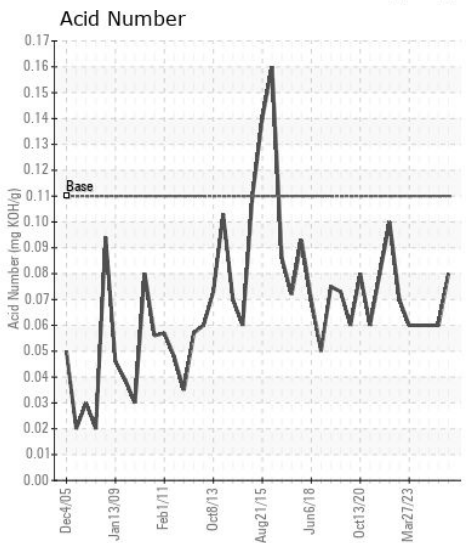
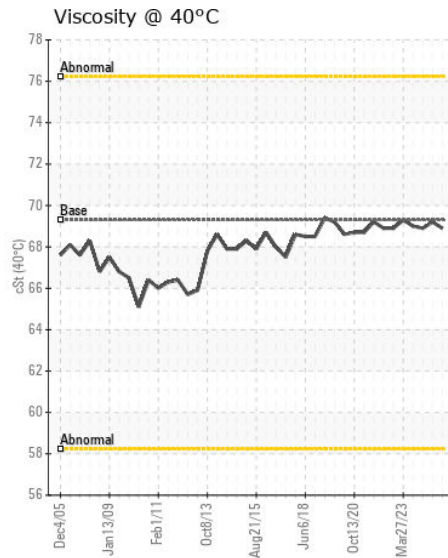
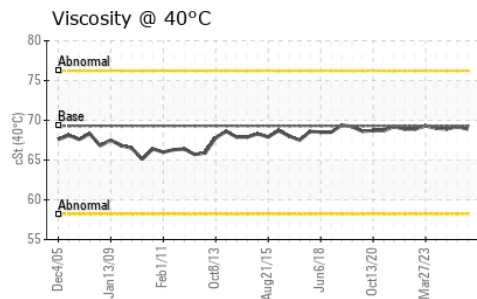
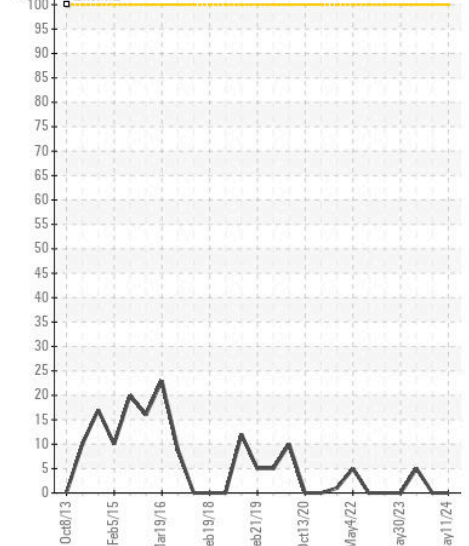
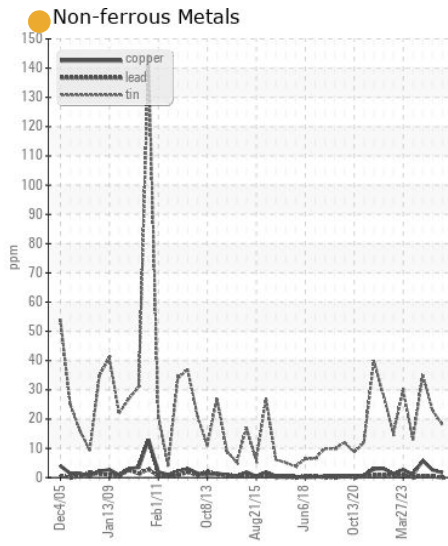
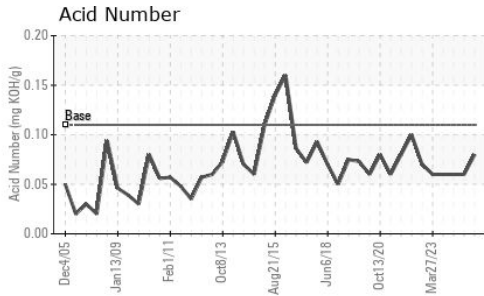
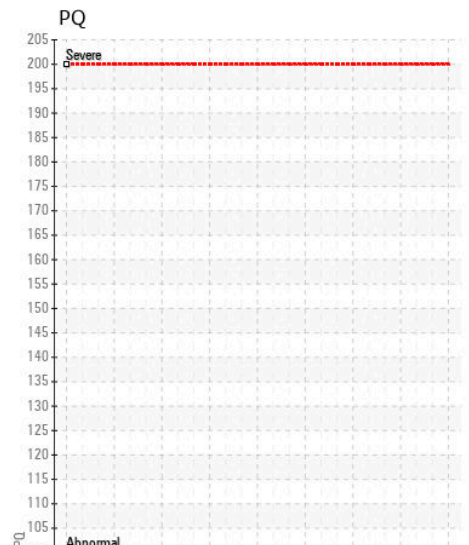
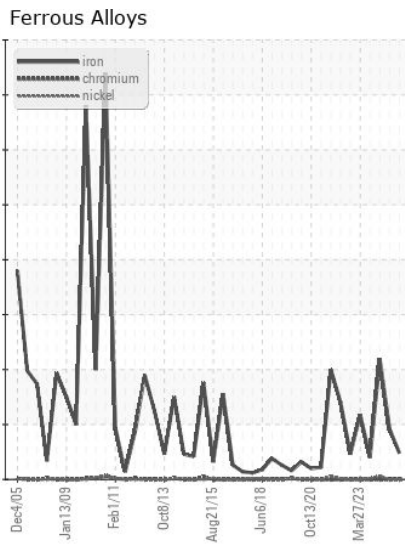
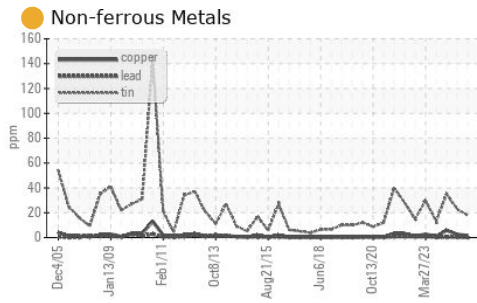
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	0	1	4
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		0	0	<1
Boron	ppm	ASTM D5185(m)	0	<1	0	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	0	0	<1	1
Phosphorus	ppm	ASTM D5185(m)	650	585	598	594
Zinc	ppm	ASTM D5185(m)	0	17	18	40
Sulfur	ppm	ASTM D5185(m)	1280	1256	1376	1314
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	0.08	0.06	0.06
Visc @ 40°C	cSt	ASTM D7279(m)	69.3	68.9	69.2	68.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0869836 **Received** : 28 May 2024
Lab Number : 02638280 **Tested** : 29 May 2024
Unique Number : 5787442 **Diagnosed** : 29 May 2024 - Kevin Marson
Test Package : MAR 2 (Additional Tests: TAN Man)

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.