



# OIL ANALYSIS REPORT

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

Area  
**SAMUELRIS**  
Machine Id  
**S30-2242 Starboard Reduction Gear**  
Component  
**Starboard Reduction Gear**  
Fluid  
**PETRO CANADA ENDURATEX EP 100 (560 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0869835</b>	WC0869817	WC0759193
Sample Date		Client Info		<b>21 May 2024</b>	14 Mar 2024	10 Nov 2023
Machine Age	hrs	Client Info		<b>79206</b>	78705	78199
Oil Age	hrs	Client Info		<b>5281</b>	4780	4274
Filter Age	hrs	Client Info		<b>2056</b>	1555	1049
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	<b>2</b>	2	2
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>100	<b>2</b>	1	2
Copper	ppm	ASTM D5185(m)	>50	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>10	<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

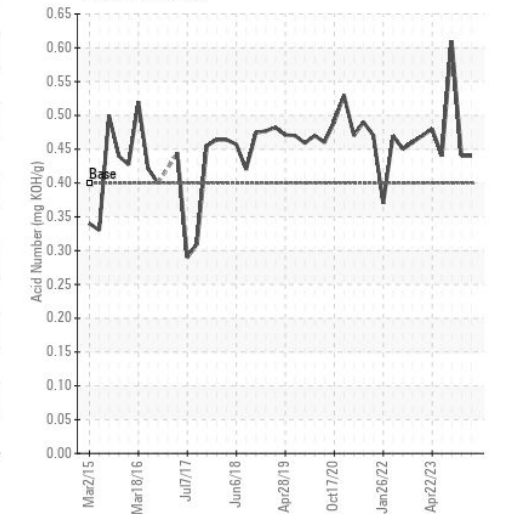
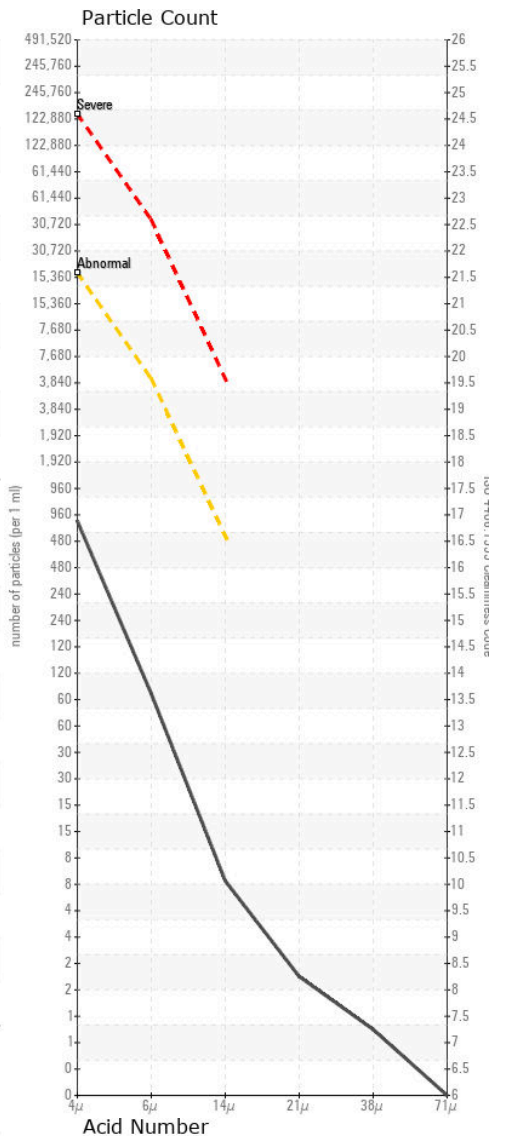
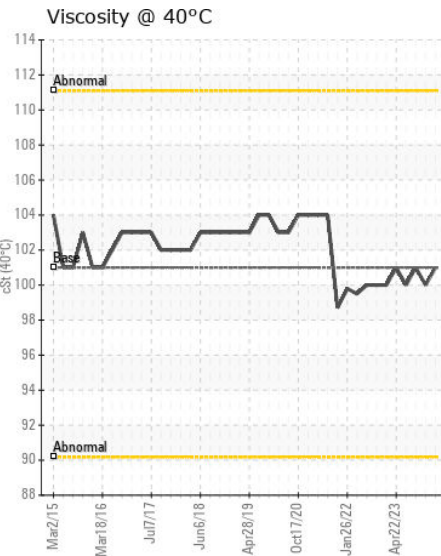
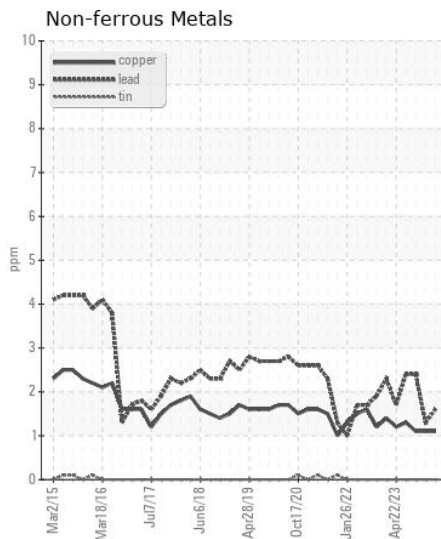
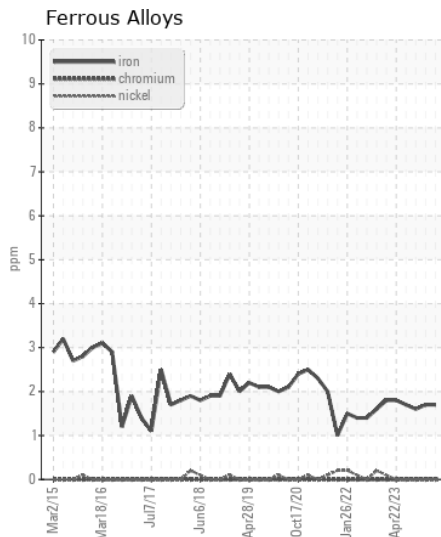
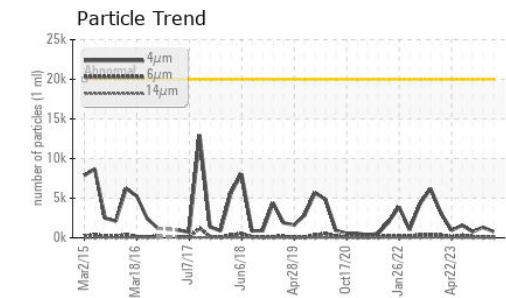
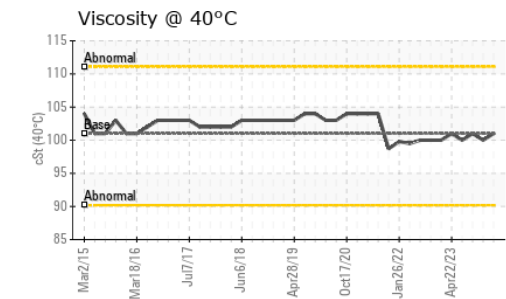
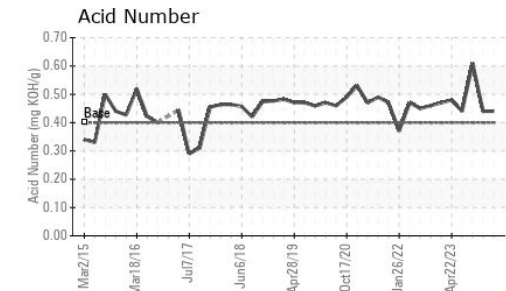
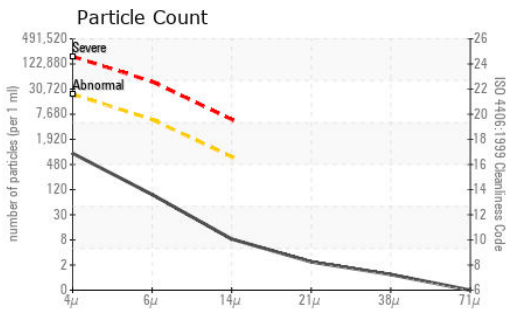
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>50	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>777</b>	1332	779
Particles >6µm		ASTM D7647	>5000	<b>81</b>	107	153
Particles >14µm		ASTM D7647	>640	<b>7</b>	12	16
Particles >21µm		ASTM D7647	>160	<b>2</b>	6	6
Particles >38µm		ASTM D7647	>40	<b>1</b>	2	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>17/14/10</b>	18/14/11	17/14/11
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
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*	>0.1	<b>NEG</b>	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)		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185(m)	50	<b>54</b>	57	57
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
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>	0	0
Calcium	ppm	ASTM D5185(m)	0	<b>2</b>	2	3
Phosphorus	ppm	ASTM D5185(m)	270	<b>246</b>	243	244
Zinc	ppm	ASTM D5185(m)	0	<b>3</b>	2	2
Sulfur	ppm	ASTM D5185(m)	4500	<b>3378</b>	3400	3600
Acid Number (AN)	mg KOH/g	ASTM D974*	0.4	<b>0.44</b>	0.44	0.61
Visc @ 40°C	cSt	ASTM D7279(m)	101	<b>101</b>	100	101



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0869835 **Received** : 28 May 2024  
**Lab Number** : 02638281 **Tested** : 30 May 2024  
**Unique Number** : 5787443 **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : MAR 2 ( Additional Tests: TAN Man )

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