



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

Machine Id  
**ARTCO MAIDEN**  
Component  
**Starboard Genset**  
Fluid  
**PETRO CANADA DURON MARINE SAE 40 (3 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MWM695473</b>	MWM667217	MWM667149
Sample Date		Client Info		<b>23 Dec 2023</b>	18 Dec 2023	07 Jul 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>600</b>	600	600
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>2</b>	4	6
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m	>17	<b>2</b>	1	<1
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	0	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

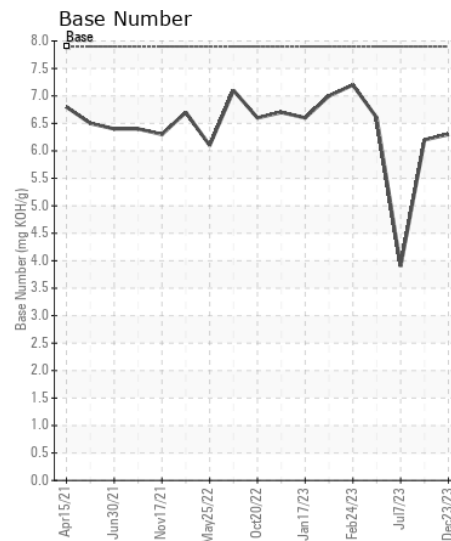
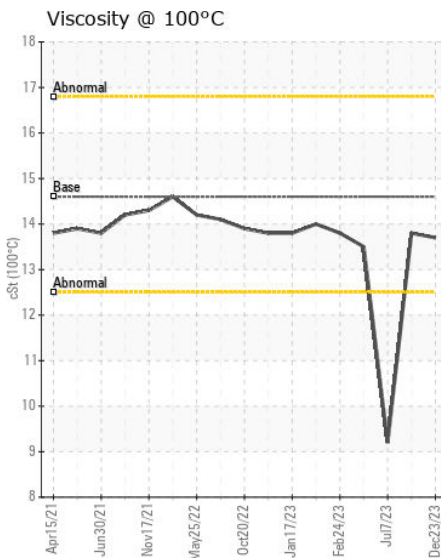
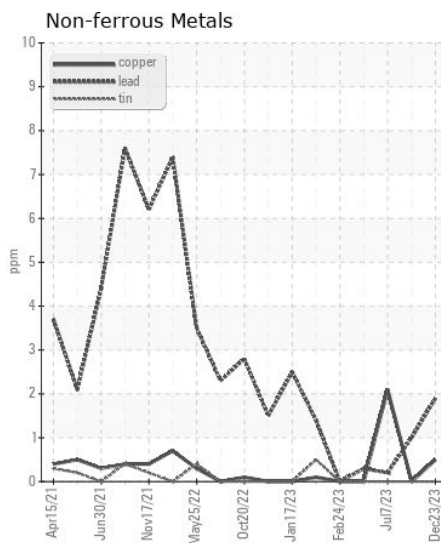
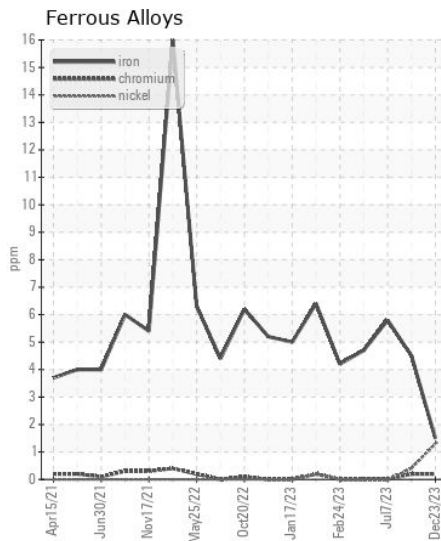
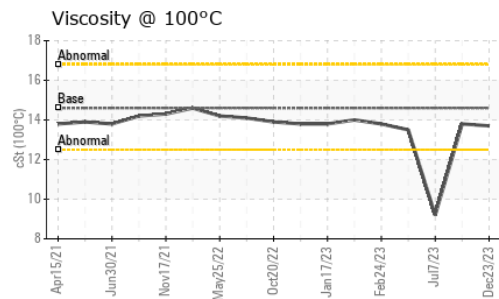
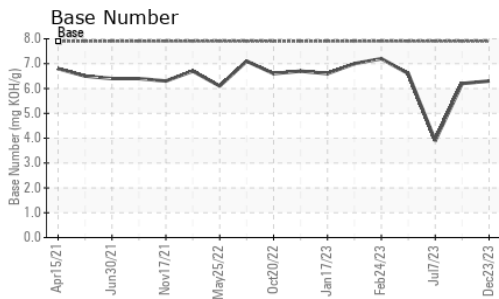
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	0.5	17.7
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.9</b>	5.2	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.0</b>	15.2	21.5
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	1
Boron	ppm	ASTM D5185m	1.0	<b>0</b>	4	0
Barium	ppm	ASTM D5185m	1.0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	1.0	<b>2</b>	2	2
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	15	<b>949</b>	897	755
Calcium	ppm	ASTM D5185m	2540	<b>1028</b>	1042	898
Phosphorus	ppm	ASTM D5185m	1000	<b>1113</b>	1114	914
Zinc	ppm	ASTM D5185m	1110	<b>1427</b>	1325	1058
Sulfur	ppm	ASTM D5185m	3700	<b>3250</b>	3015	2875
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>8.9</b>	9.1	23.3
Base Number (BN)	mg KOH/g	ASTM D2896	7.9	<b>6.3</b>	6.2	3.9
Visc @ 100°C	cSt	ASTM D445	14.6	<b>13.7</b>	13.8	9.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MWM695473 **Received** : 12 Jan 2024  
**Lab Number** : 06059092 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830474 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

**AMERICAN RIVER TRANS. CO. PEORIA**  
 534 WESLEY RD  
 CREVECOEUR, IL  
 US 61610  
 Contact: STEVE BUCCO

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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