



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

Machine Id  
**ARTCO MAIDEN**  
Component  
**Starboard Main Engine**  
Fluid  
**PETRO CANADA DURON MARINE SAE 40 (18 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MWM696835</b>	MWM696836	MWM696862
Sample Date		Client Info		<b>26 Apr 2024</b>	26 Apr 2024	28 Mar 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>600</b>	600	800
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>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>3</b>	6	18
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	2	9
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	4
Copper	ppm	ASTM D5185m	>300	<b>0</b>	10	38
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

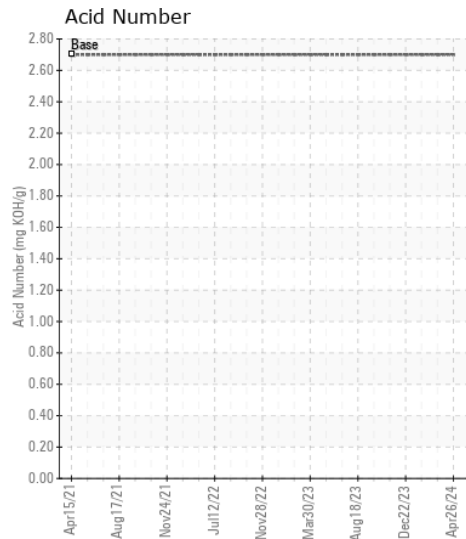
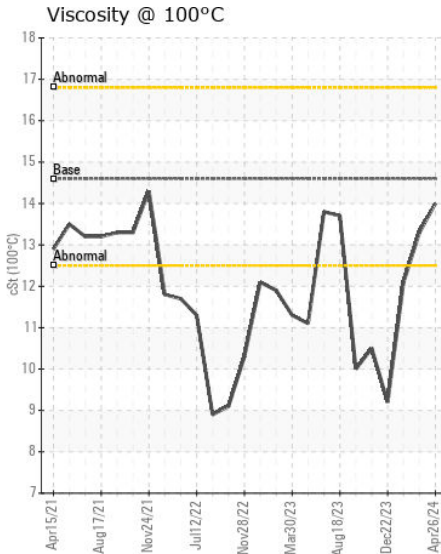
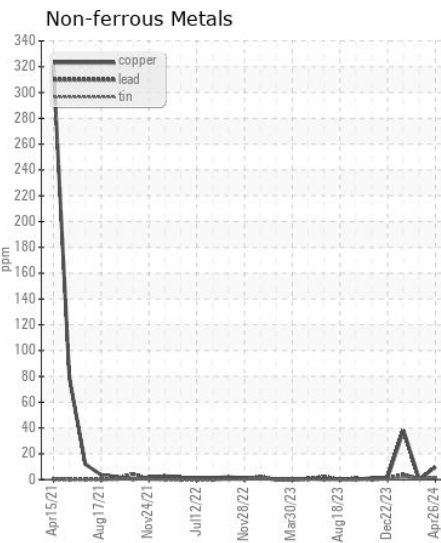
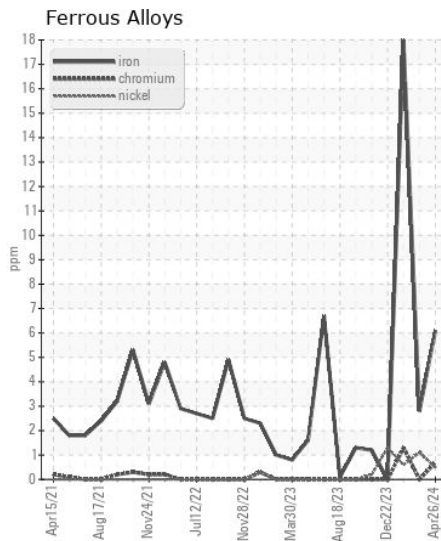
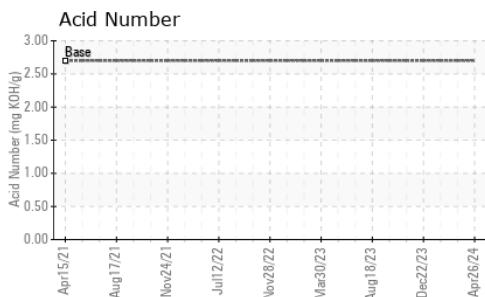
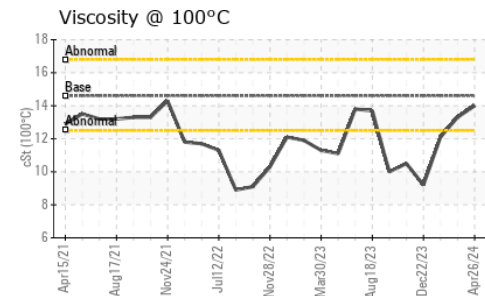
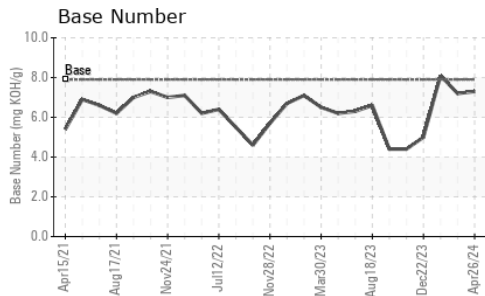
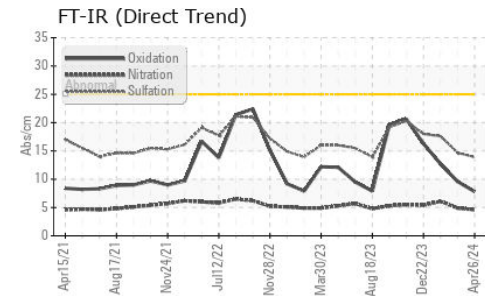
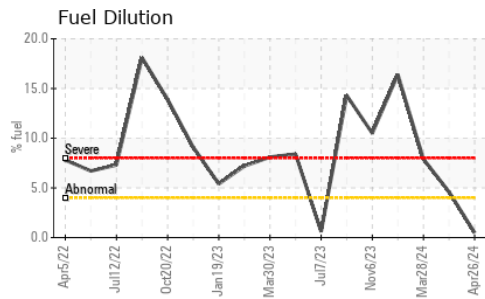
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	18
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Fuel	%	ASTM D3524	>4.0	<b>0.5</b>	▲ 4.6	▲ 7.9
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>4.6</b>	4.9	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>13.9</b>	14.7	17.6
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>1</b>	6	48
Boron	ppm	ASTM D5185m	1.0	<b>21</b>	22	0
Barium	ppm	ASTM D5185m	1.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.0	<b>3</b>	9	40
Manganese	ppm	ASTM D5185m	1	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m	15	<b>957</b>	844	875
Calcium	ppm	ASTM D5185m	2540	<b>1187</b>	1164	1017
Phosphorus	ppm	ASTM D5185m	1000	<b>1224</b>	1163	1058
Zinc	ppm	ASTM D5185m	1110	<b>1456</b>	1288	1209
Sulfur	ppm	ASTM D5185m	3700	<b>4142</b>	3573	3288
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>7.8</b>	9.6	12.7
Base Number (BN)	mg KOH/g	ASTM D2896	7.9	<b>7.3</b>	7.2	8.1
Visc @ 100°C	cSt	ASTM D445	14.6	<b>14.0</b>	13.3	▲ 12.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MWM696835  
**Lab Number** : 06225444  
**Unique Number** : 11103641  
**Test Package** : MAR 2 ( Additional Tests: KV40, PercentFuel, TAN Man )

**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)

T: (309)360-3931  
 F: (309)694-7030