



Machine Id
PRAIRIE MOON
Component
Starboard Main Engine
Fluid
PETRO CANADA DURON MARINE SAE 40 (19 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MWM667199	MW06183982	MWM695477
Sample Date		Client Info		22 May 2024	22 Feb 2024	05 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		800	0	800
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	6	5	0
Chromium	ppm	ASTM D5185m	>8	0	<1	0
Nickel	ppm	ASTM D5185m	>2	1	<1	1
Titanium	ppm	ASTM D5185m	>3	0	<1	0
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>15	<1	2	<1
Lead	ppm	ASTM D5185m	>18	2	1	<1
Copper	ppm	ASTM D5185m	>80	2	2	1
Tin	ppm	ASTM D5185m	>14	<1	1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

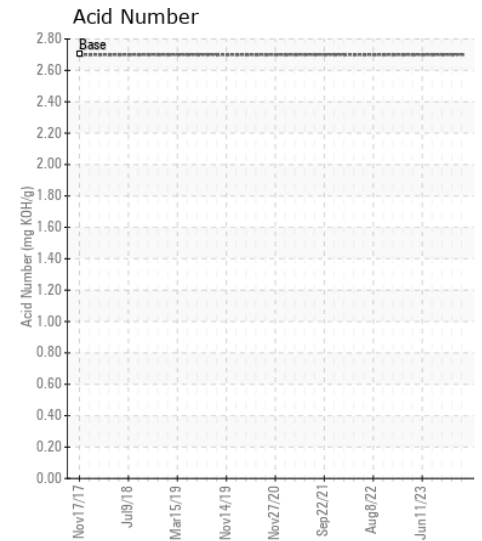
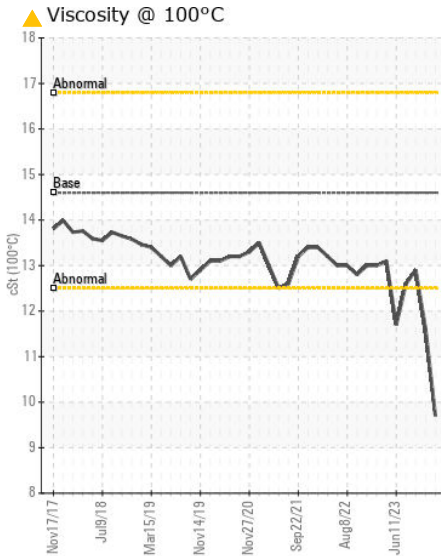
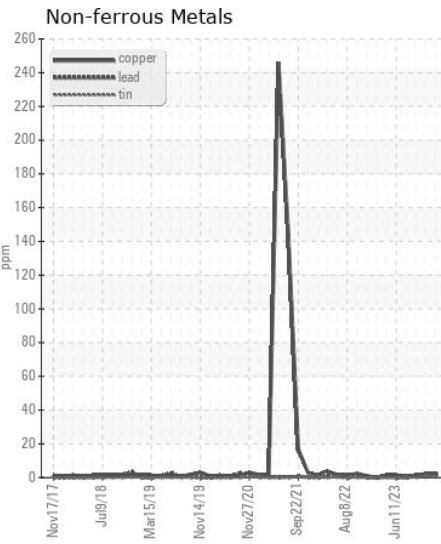
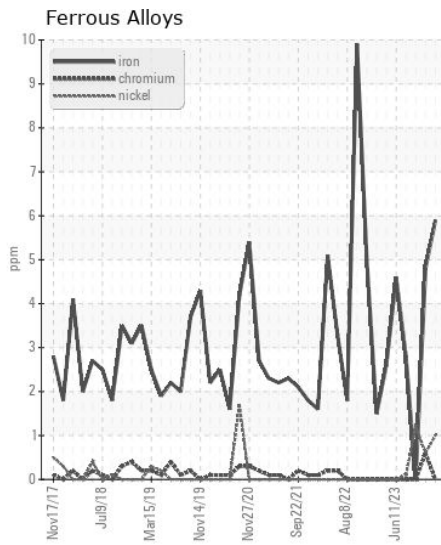
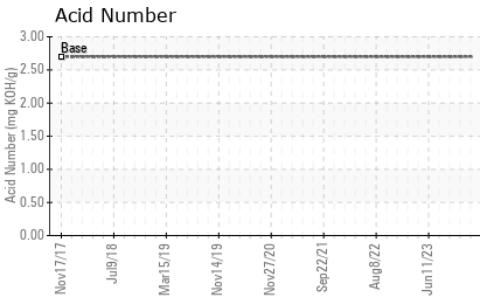
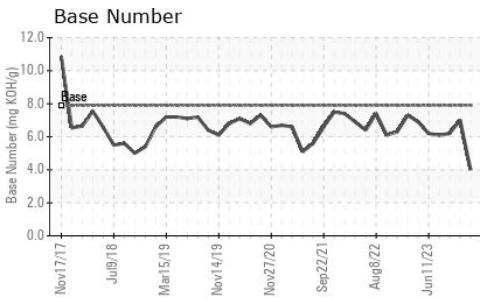
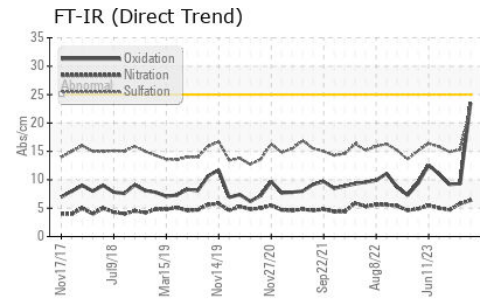
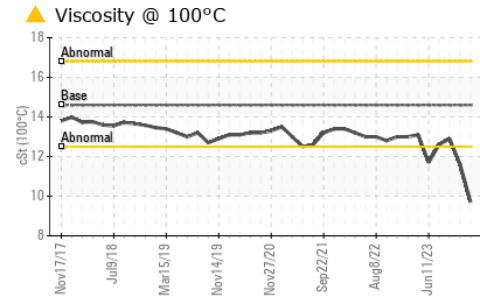
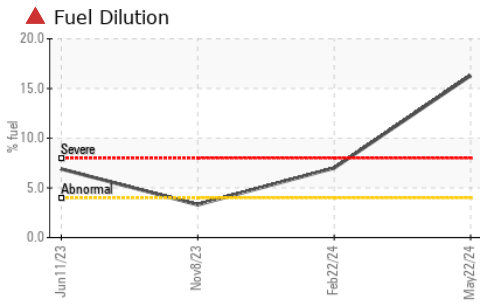
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	1
Potassium	ppm	ASTM D5185m	>20	4	2	0
Fuel	%	ASTM D3524	>4.0	▲ 16.3	▲ 7.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.4	5.8	4.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	15.3	14.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>75	2	0	0
Boron	ppm	ASTM D5185m	1.0	2	2	0
Barium	ppm	ASTM D5185m	1.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.0	2	5	2
Manganese	ppm	ASTM D5185m	1	<1	<1	<1
Magnesium	ppm	ASTM D5185m	15	849	848	929
Calcium	ppm	ASTM D5185m	2540	907	1031	993
Phosphorus	ppm	ASTM D5185m	1000	1075	1111	1120
Zinc	ppm	ASTM D5185m	1110	1257	1257	1391
Sulfur	ppm	ASTM D5185m	3700	3512	3373	3369
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.5	9.3	9.2
Base Number (BN)	mg KOH/g	ASTM D2896	7.9	4.0	7.0	6.2
Visc @ 100°C	cSt	ASTM D445	14.6	▲ 9.7	▲ 11.6	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MWM667199
Lab Number : 06225446
Unique Number : 11103643
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)

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