



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
AMERICAN QUEEN
 Machine Id
[AMERICAN QUEEN] AMERICAN QUEEN 1-2
 Component
Gearbox
 Fluid
DELVAC (--- LTR)



DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 There is no indication of any contamination in the oil.

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0823252	---	---
Sample Date	Client Info		06 Nov 2023	---	---
Machine Age	hrs Client Info		0	---	---
Oil Age	hrs Client Info		0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			NORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m	>200	21	---	---
Chromium	ppm ASTM D5185m	>10	0	---	---
Nickel	ppm ASTM D5185m	>10	0	---	---
Titanium	ppm ASTM D5185m		0	---	---
Silver	ppm ASTM D5185m		0	---	---
Aluminum	ppm ASTM D5185m	>25	5	---	---
Lead	ppm ASTM D5185m	>50	<1	---	---
Copper	ppm ASTM D5185m	>200	0	---	---
Tin	ppm ASTM D5185m	>10	0	---	---
Vanadium	ppm ASTM D5185m		0	---	---
Cadmium	ppm ASTM D5185m		0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m		4	---	---
Barium	ppm ASTM D5185m		0	---	---
Molybdenum	ppm ASTM D5185m		0	---	---
Manganese	ppm ASTM D5185m		0	---	---
Magnesium	ppm ASTM D5185m		0	---	---
Calcium	ppm ASTM D5185m		4	---	---
Phosphorus	ppm ASTM D5185m		295	---	---
Zinc	ppm ASTM D5185m		8	---	---
Sulfur	ppm ASTM D5185m		7413	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>50	2	---	---
Sodium	ppm ASTM D5185m		2	---	---
Potassium	ppm ASTM D5185m	>20	0	---	---

FLUID DEGRADATION

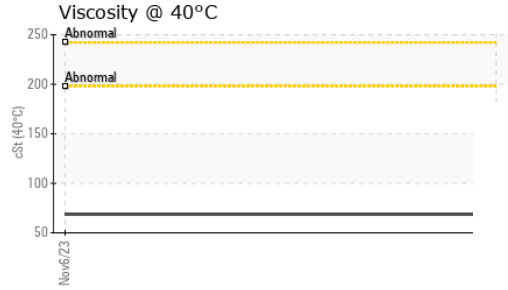
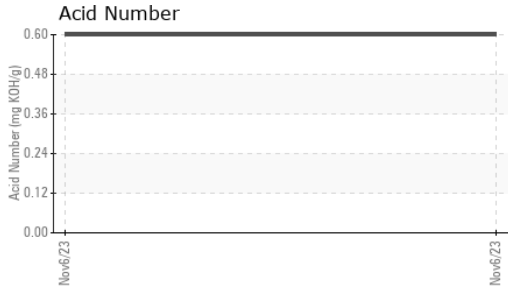
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045		0.60	---	---

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	---	---
Yellow Metal	scalar *Visual	NONE	NONE	---	---
Precipitate	scalar *Visual	NONE	NONE	---	---
Silt	scalar *Visual	NONE	NONE	---	---
Debris	scalar *Visual	NONE	NONE	---	---
Sand/Dirt	scalar *Visual	NONE	NONE	---	---
Appearance	scalar *Visual	NORML	NORML	---	---
Odor	scalar *Visual	NORML	NORML	---	---
Emulsified Water	scalar *Visual	>0.2	NEG	---	---
Free Water	scalar *Visual		NEG	---	---



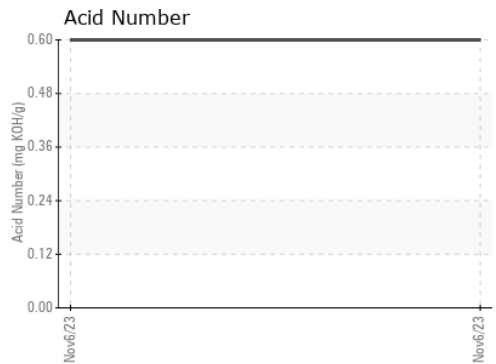
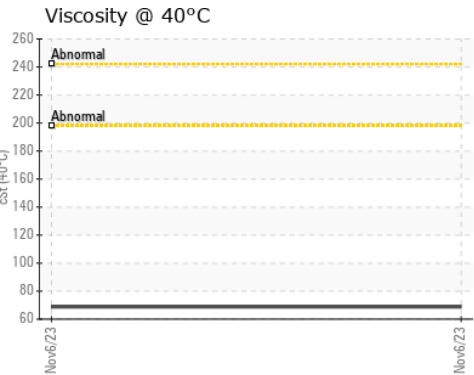
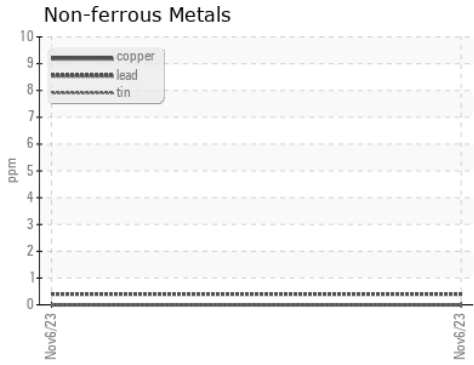
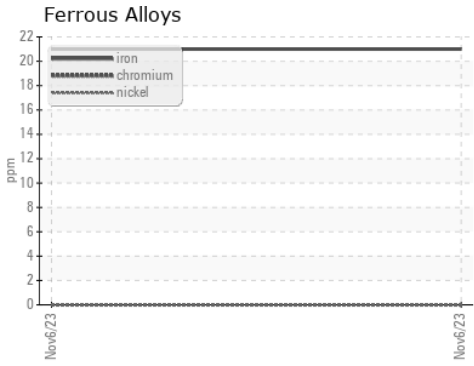
OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68.8	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0823252 **Received** : 06 Nov 2023
Lab Number : 05999994 **Diagnosed** : 08 Nov 2023
Unique Number : 10728354 **Diagnostician** : Don Baldrige
Test Package : MAR 2

American Queen Voyages - Mississippi River Boats
 1201 Bridgeport Drive
 Jeffersonville, IN
 US 47130
 Contact: David Martin
 David.Martin@aqvoyages.com
 T: (601)441-8494
 F:

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)