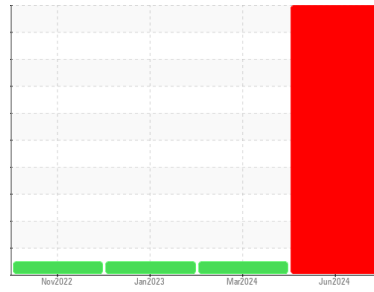




COOLANT REPORT

Sample Rating Trend



WEAR



Area

Detroit

Machine Id

[Detroit] Coolant - Starboard Main Engine (Jacket)

Component

Coolant

Fluid

CATERPILLAR ELC (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend drain/flush system, and refill with 50/50 antifreeze water mixture. We advise an early resample to confirm this situation.

▲ Corrosion

The iron level is abnormal.

Contaminants

There is no indication of any contamination in the coolant.

▲ Coolant Condition

The pH is low indicating a high acidity of the fluid. The glycol level is lower than acceptable. Confirm coolant type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0804741	WC0804780	WC0731904
Sample Date	Client Info		03 Jun 2024	25 Mar 2024	30 Jan 2023
Machine Age	hrs	Client Info	20922	19474	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	NORMAL	NORMAL

PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		1.000	1.048	1.001
pH	Scale 0-14 ASTM D1287		▲ 5.00	8.61	7.00
Nitrites	ppm AP-053:2009		372	600	412
Reserve Alkalinity	Scale 0-20 *ASTM D1121		---	---	---
Percentage Glycol	% ASTM D3321		▲ 0.5	35.1	5.2
Freezing Point	°F ASTM D3321		32	-3	29
Total Dissolved Solids			41.0	282.0	56.5
Carboxylate			fail	fail	fail

CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D6130	0	<1	14	37
Phosphorus	ppm ASTM D6130	0	0	4	29
Boron	ppm ASTM D6130	0	0	8	20
Molybdenum	ppm ASTM D6130	950	0	569	13

CORROSION

	method	limit/base	current	history1	history2
Iron	ppm ASTM D6130	>15	▲ 34	1	1
Aluminum	ppm ASTM D6130	>10	0	<1	<1
Copper	ppm ASTM D6130	>10	0	1	1
Lead	ppm ASTM D6130	>10	0	<1	<1
Tin	ppm ASTM D6130	>10	0	<1	<1
Zinc	ppm ASTM D6130		0	0	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm ASTM D6130		36	14	98

CARRIER SALTS

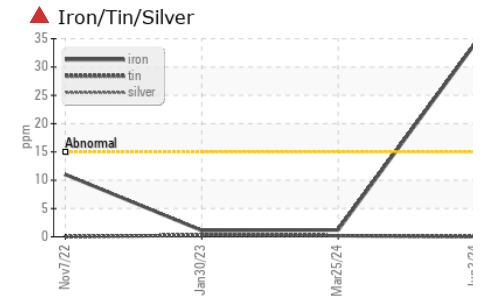
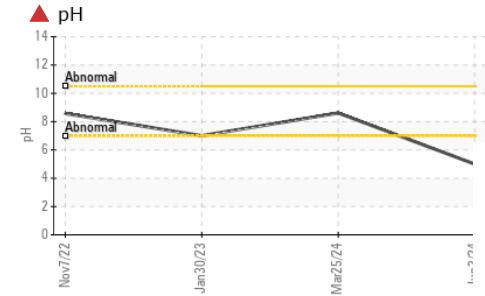
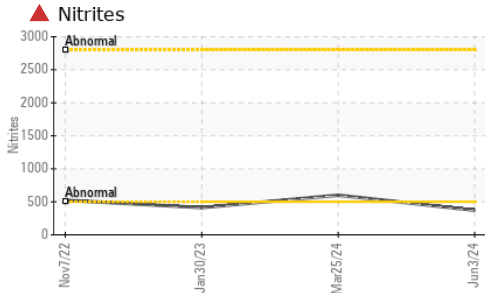
	method	limit/base	current	history1	history2
Sodium	ppm ASTM D6130		69	3576	1152
Potassium	ppm ASTM D6130		3	253	139

SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm ASTM D6130		57	26	158
Magnesium	ppm ASTM D6130		9	5	20

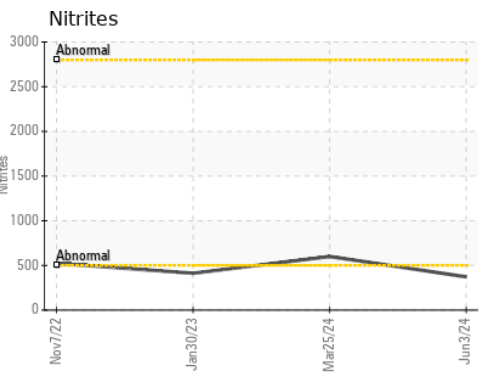
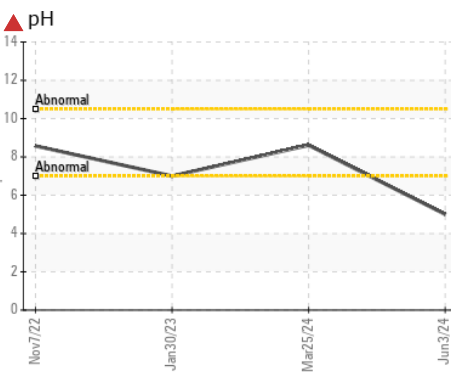
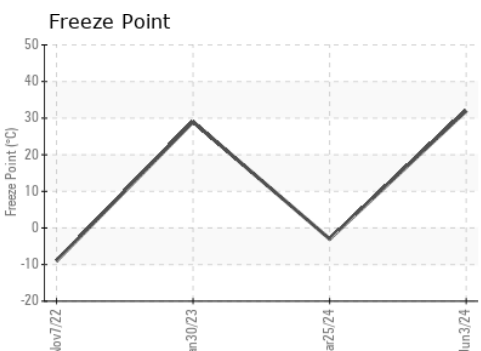
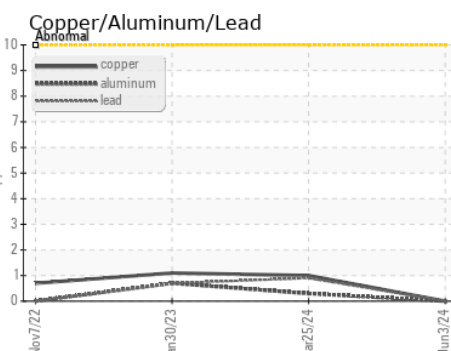
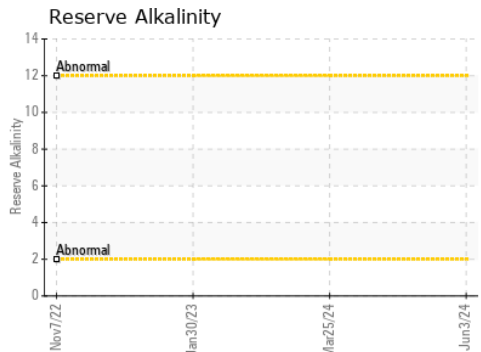
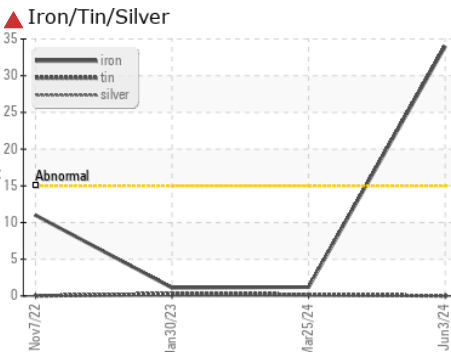


COOLANT REPORT



VISUAL	method	limit/base	current	history1	history2
Coolant Color	*Visual		Clear	Red	Yellow
Coolant Appearance	*Visual	Clear	normal	normal	normal
Color					
Bottom					

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0804741 **Received** : 25 Jun 2024
Lab Number : 06220314 **Tested** : 16 Jul 2024
Unique Number : 11098511 **Diagnosed** : 16 Jul 2024 - Doug Bogart
Test Package : COOL- (Additional Tests: GlycolType, ICP, KF)

MARATHON PETROLEUM CO.
 101 12TH ST
 CATLETTSBURG, KY
 US 41169

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

Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com

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

T: (606)585-3950

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

F: x: