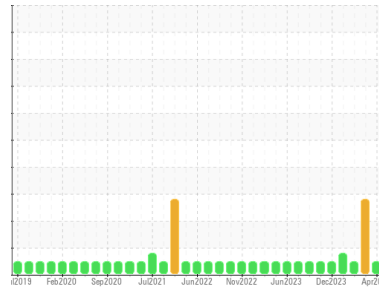




COOLANT REPORT

Sample Rating Trend



NORMAL



Area

Kentucky

Machine Id

[Kentucky] Coolant - Starboard Main Engine (Jacket)

Component

Coolant

Fluid

CATERPILLAR ELC (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The fluid is suitable for further service.

Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

Contaminants

There is no indication of any contamination in the coolant.

Coolant Condition

Carboxylate test failed. Glycol and nitrite levels are acceptable. The pH level of this fluid is within the acceptable limits.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0845809	WC0874826	WC0859929
Sample Date	Client Info		25 Apr 2024	16 Mar 2024	16 Feb 2024
Machine Age	hrs	Client Info	14434	0	12937
Oil Age	hrs	Client Info	14434	0	12937
Oil Changed		Client Info	N/A	N/A	N/A
Sample Status			NORMAL	ABNORMAL	NORMAL

PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		1.060	1.044	1.061
pH	Scale 0-14	ASTM D1287	8.53	8.44	8.60
Nitrites	ppm	AP-053:2009	560	712	184
Reserve Alkalinity	Scale 0-20	*ASTM D1121	---	---	---
Percentage Glycol	%	ASTM D3321	44.6	▲ 32.8	45.3
Freezing Point	°F	ASTM D3321	-21	1	-24
Total Dissolved Solids			286.0	221.5	243.5
Carboxylate			fail	fail	fail

CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D6130	0	9	10
Phosphorus	ppm	ASTM D6130	0	0	0
Boron	ppm	ASTM D6130	0	0	13
Molybdenum	ppm	ASTM D6130	950	581	441

CORROSION

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

CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm	ASTM D6130		11	8

CARRIER SALTS

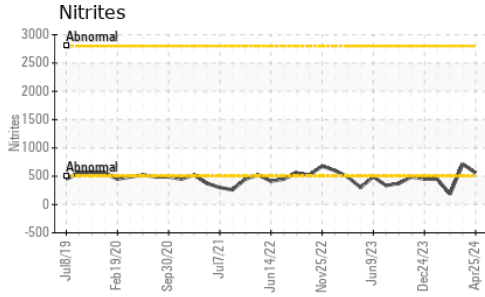
	method	limit/base	current	history1	history2
Sodium	ppm	ASTM D6130		4323	2875
Potassium	ppm	ASTM D6130		8	12

SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm	ASTM D6130		4	29
Magnesium	ppm	ASTM D6130		2	4

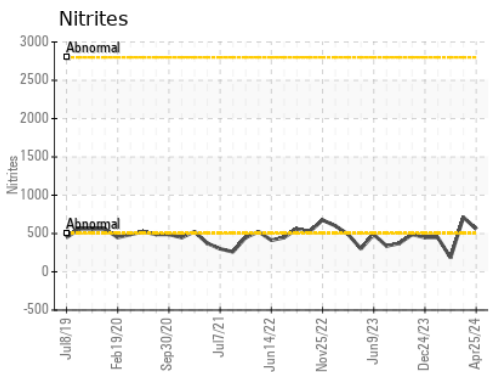
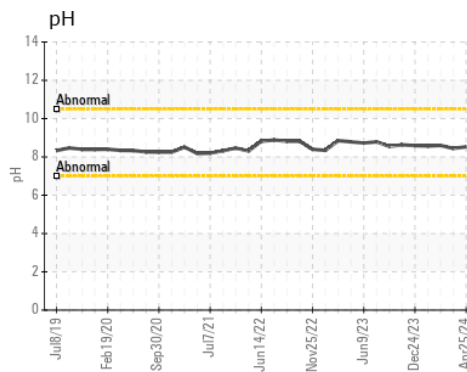
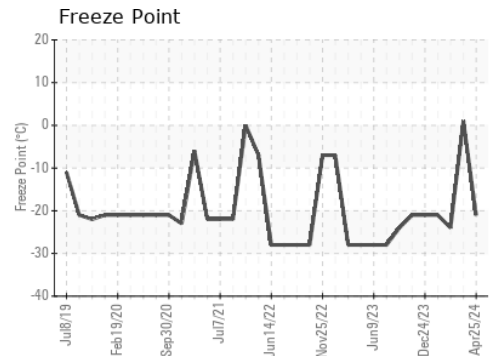
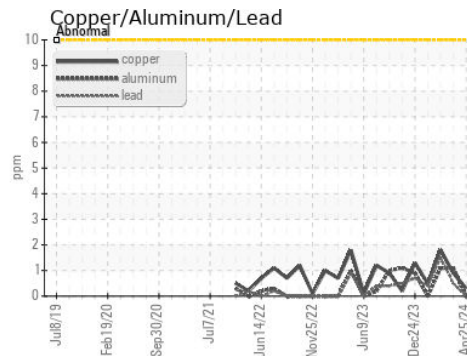
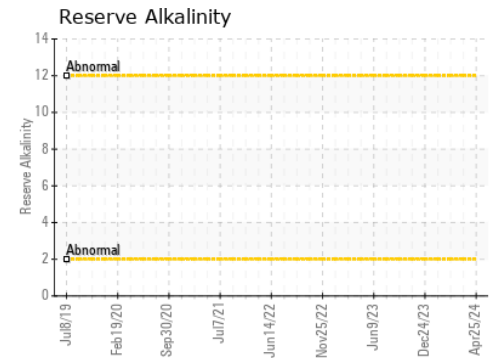
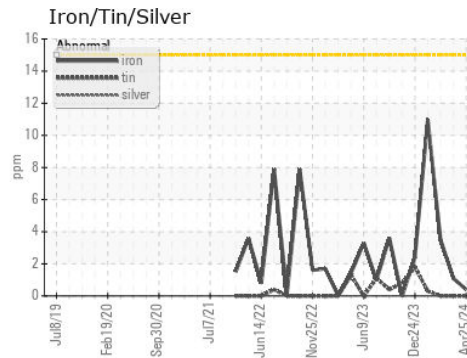


COOLANT REPORT



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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0845809
Lab Number : 06181915
Unique Number : 11033241
Test Package : COOL- (Additional Tests: BoilingPoint, COOL, GlycolType, ICP, KF)

Received : 16 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Jonathan Hester

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: