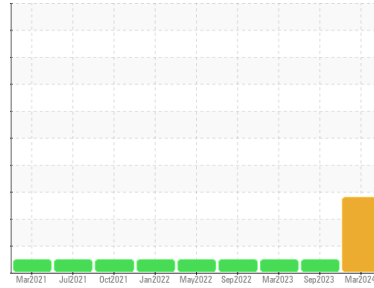




# COOLANT REPORT

Sample Rating Trend



OFF SPEC



Area

Tri State

Machine Id

[Tri State] Coolant - Starboard Main Engine (Aftercooler)

Component

Starboard Coolant

Fluid

EXTENDED LIFE COOLANT (--- GAL)

## DIAGNOSIS

### Recommendation

We recommend that you perform a partial drain and top off with straight antifreeze to increase level of glycol.

### 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		WC0874866	WC0805316	WC0735480
Sample Date	Client Info		29 Mar 2024	26 Sep 2023	13 Mar 2023
Machine Age	hrs	Client Info	0	18916	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

## PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Glycol Type	FT-IR		---	---	---
Specific Gravity	*ASTM D1298		1.014	1.032	1.032
pH	Scale 0-14	ASTM D1287	7.95	8.08	6.92
Nitrites	ppm	AP-053:2009	636	448	524
Reserve Alkalinity	Scale 0-20	*ASTM D1121	---	---	---
Percentage Glycol	%	ASTM D3321	▲ 12.9	24.8	24.9
Freezing Point	°F	ASTM D3321	24	11	11
Total Dissolved Solids			110.0	179.0	173.5
Carboxylate			fail	fail	fail

## CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D6130	5	15	40
Phosphorus	ppm	ASTM D6130	1	<1	0
Boron	ppm	ASTM D6130	0	12	0
Molybdenum	ppm	ASTM D6130	195	244	566

## CORROSION

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

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Chlorine	ppm	ASTM D6130		23	18	34

## CARRIER SALTS

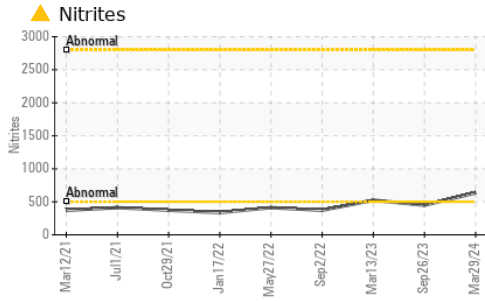
	method	limit/base	current	history1	history2	
Sodium	ppm	ASTM D6130		1425	2021	3776
Potassium	ppm	ASTM D6130		9	32	15

## SCALE POTENTIAL

	method	limit/base	current	history1	history2	
Calcium	ppm	ASTM D6130		14	3	7
Magnesium	ppm	ASTM D6130		9	6	13

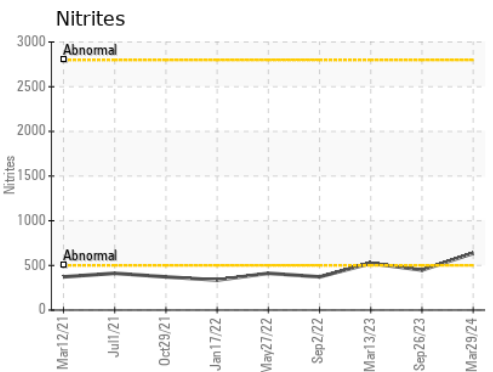
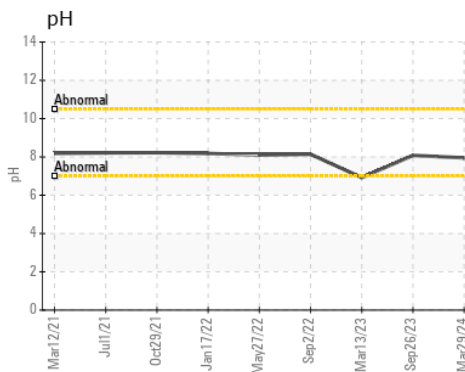
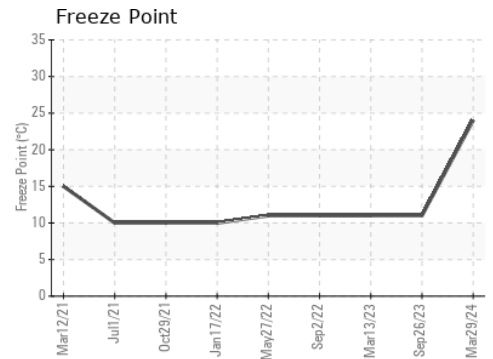
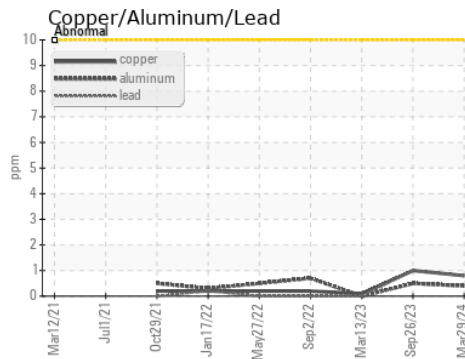
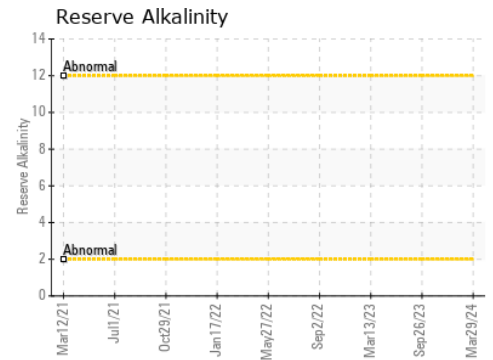
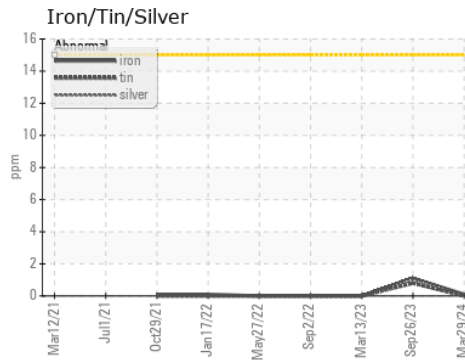


# COOLANT REPORT



VISUAL	method	limit/base	current	history1	history2
Coolant Color	*Visual		Orange	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.** : WC0874866  
**Lab Number** : 06140429  
**Unique Number** : 10965237  
**Test Package** : COOL- ( Additional Tests: BoilingPoint, COOL, GlycolType, ICP, KF )

**Received** : 05 Apr 2024  
**Tested** : 10 Apr 2024  
**Diagnosed** : 10 Apr 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: