



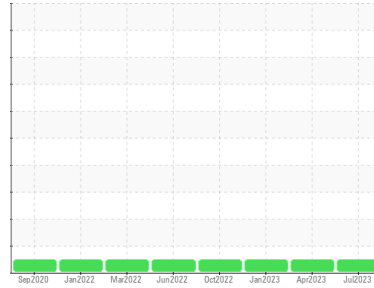
# COOLANT REPORT

Sample Rating Trend

**NORMAL**



Area  
**Findlay**  
 Machine Id  
**[Findlay] 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		<b>WC0769018</b>	WC0735502	WC0683283
Sample Date	Client Info		<b>28 Jul 2023</b>	25 Apr 2023	29 Jan 2023
Machine Age	hrs	Client Info	<b>7914</b>	6214	3801
Oil Age	hrs	Client Info	<b>0</b>	6214	3801
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298		<b>1.062</b>	1.062	1.062
pH	Scale 0-14 ASTM D1287		<b>8.47</b>	8.41	8.40
Nitrites	ppm AP-053:2009		<b>712</b>	636	712
Reserve Alkalinity	Scale 0-20 *ASTM D1121		<b>---</b>	---	---
Percentage Glycol	% ASTM D3321		<b>45.8</b>	45.6	45.6
Freezing Point	°F ASTM D3321		<b>-24</b>	-24	-24
Total Dissolved Solids			<b>291.0</b>	320.5	289.0
Carboxylate			<b>fail</b>	pass	pass

## CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D6130	0	<b>10</b>	6	20
Phosphorus	ppm ASTM D6130	0	<b>0</b>	0	0
Boron	ppm ASTM D6130	0	<b>5</b>	0	14
Molybdenum	ppm ASTM D6130	950	<b>963</b>	1112	1006

## CORROSION

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

## CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm ASTM D6130		<b>14</b>	5	15

## CARRIER SALTS

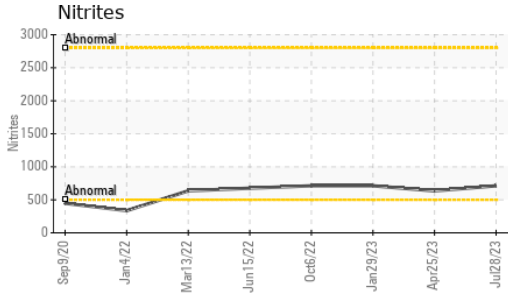
	method	limit/base	current	history1	history2
Sodium	ppm ASTM D6130		<b>5478</b>	5841	5549
Potassium	ppm ASTM D6130		<b>1</b>	0	30

## SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm ASTM D6130		<b>1</b>	2	1
Magnesium	ppm ASTM D6130		<b>4</b>	5	4

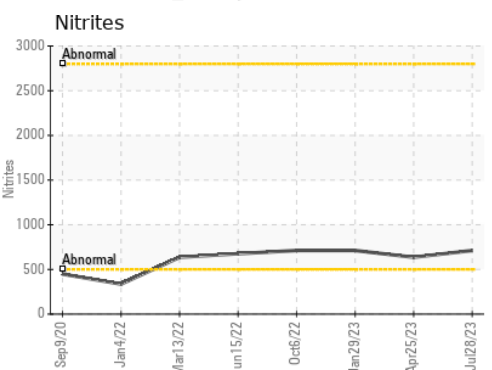
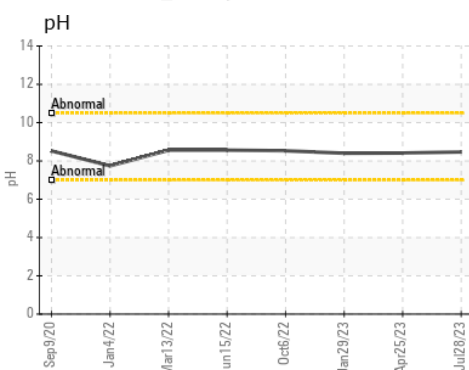
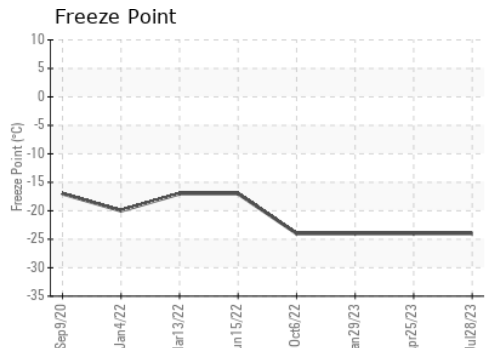
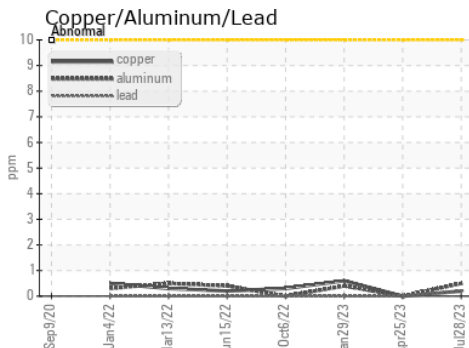
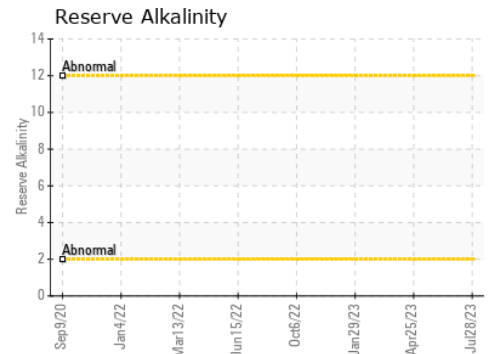
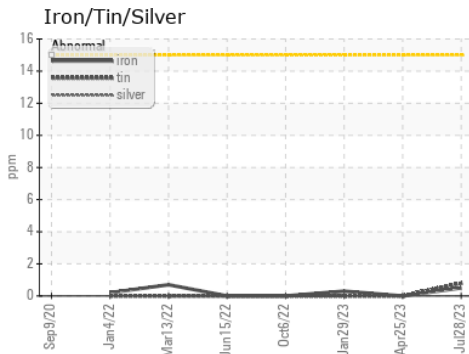


# COOLANT REPORT



VISUAL	method	limit/base	current	history1	history2
Coolant Color	*Visual		Red	LtRed	Red
Coolant Appearance	*Visual	Clear	normal	normal	normal
Color			no image		
Bottom			no image		

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0769018 **Received** : 10 Aug 2023  
**Lab Number** : 05921899 **Diagnosed** : 15 Aug 2023  
**Unique Number** : 10601846 **Diagnostician** : Doug Bogart  
**Test Package** : COOL- ( Additional Tests: COOL, ICP )

**MARATHON PETROLEUM CO.**  
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 US 41169  
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 stmccclaskey@marathonpetroleum.com  
 T: (606)739-2416  
 F: x:

Certificate L2367  
 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)