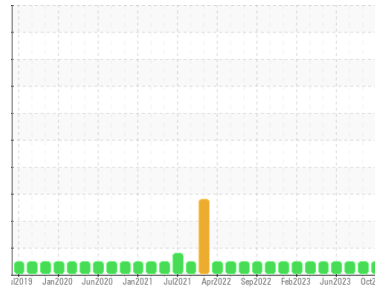




COOLANT REPORT

Sample Rating Trend



NORMAL



Area
Kentucky
 Machine Id
[Kentucky] Coolant - Starboard Main Engine (Jacket)
 Component
Coolant
 Fluid
CATERPILLAR ELC (--- GAL)

DIAGNOSIS

Recommendation

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

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		WC0805482	WC0769173	WC0769202
Sample Date	Client Info		30 Oct 2023	25 Aug 2023	06 Jul 2023
Machine Age	hrs	Client Info	10966	9750	8977
Oil Age	hrs	Client Info	10966	0	8977
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

PHYSICAL TEST RESULTS

	method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298		1.060	1.062	1.064
pH	Scale 0-14 ASTM D1287		8.63	8.55	8.79
Nitrites	ppm AP-053:2009		488	372	336
Reserve Alkalinity	Scale 0-20 *ASTM D1121		---	---	---
Percentage Glycol	% ASTM D3321		44.5	45.4	47.3
Freezing Point	°F ASTM D3321		-21	-24	-28
Total Dissolved Solids			300.0	314.0	328.0
Carboxylate			fail	fail	pass

CORROSION INHIBITORS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D6130	0	8	21	25
Phosphorus	ppm ASTM D6130	0	0	0	0
Boron	ppm ASTM D6130	0	8	18	24
Molybdenum	ppm ASTM D6130	950	507	844	911

CORROSION

	method	limit/base	current	history1	history2
Iron	ppm ASTM D6130	>15	0	4	1
Aluminum	ppm ASTM D6130	>10	1	1	<1
Copper	ppm ASTM D6130	>10	<1	<1	1
Lead	ppm ASTM D6130	>10	<1	<1	<1
Tin	ppm ASTM D6130	>10	<1	<1	1
Zinc	ppm ASTM D6130		0	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Chlorine	ppm ASTM D6130		12	25	26

CARRIER SALTS

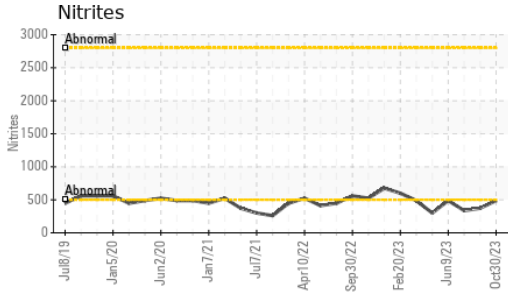
	method	limit/base	current	history1	history2
Sodium	ppm ASTM D6130		3593	5118	6209
Potassium	ppm ASTM D6130		8	3	173

SCALE POTENTIAL

	method	limit/base	current	history1	history2
Calcium	ppm ASTM D6130		6	12	6
Magnesium	ppm ASTM D6130		3	3	2

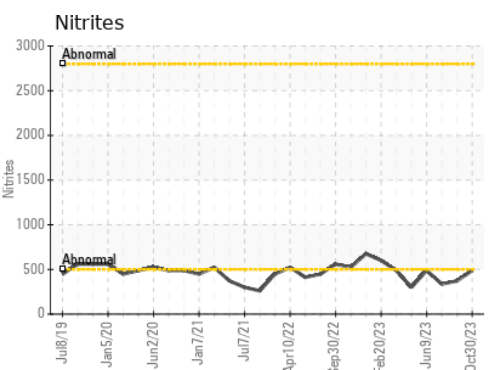
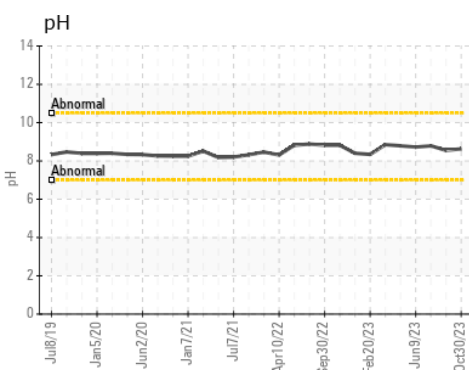
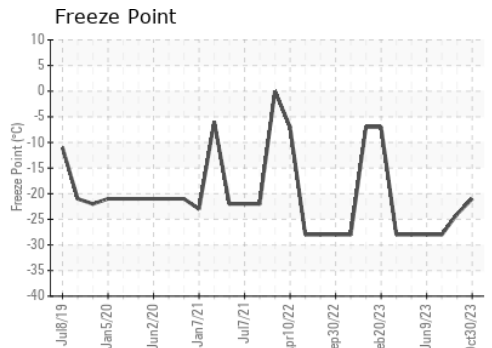
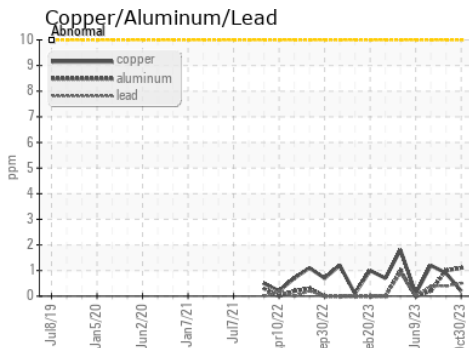
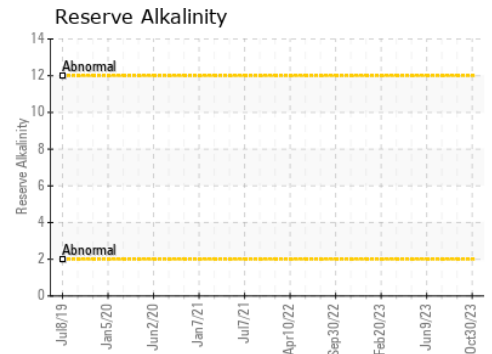
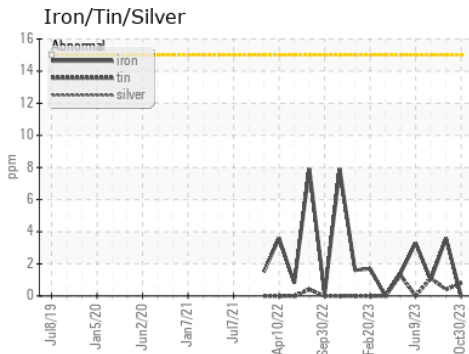


COOLANT REPORT



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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0805482 **Received** : 06 Nov 2023
Lab Number : 05999504 **Diagnosed** : 15 Nov 2023
Unique Number : 10727864 **Diagnostician** : Doug Bogart
Test Package : COOL- (Additional Tests: COOL, ICP, KF)

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 101 12TH ST
 CATLETTSBURG, KY
 US 41169
 Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com
 T: (606)585-3950
 F: x:

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)