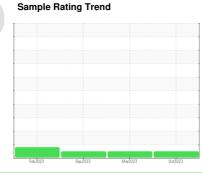


COOLANT REPORT

KANSAS/88 53.167L [KANSAS^88]

Component Coolant

CATERPILLAR ELC (--- GAL)





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.

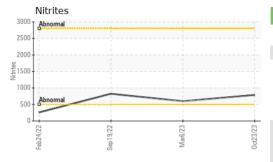
Coolant Condition

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

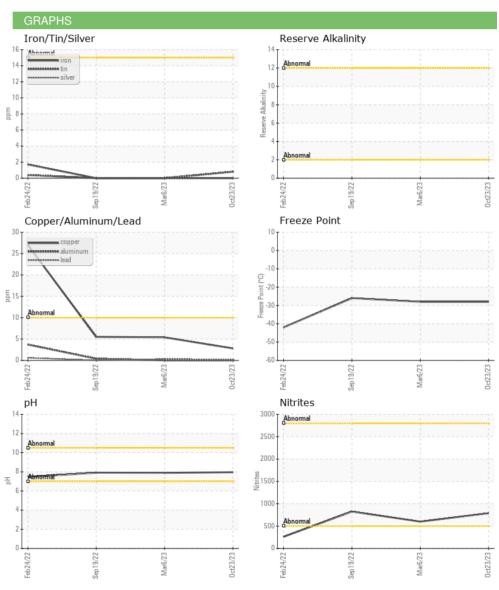
Sample Number	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 2672 2501 2248 Oil Age hrs Client Info 2672 2248 2248 Oil Changed Client Info Not Changd N/A Not Changd Sample Status NORMAL NORMAL NORMAL NORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2 Specific Gravity "ASTM D1298 1.064 1.064 1.063 1.063 pH \$sale 0.40 ASTM D1287 7.96 7.89 7.91 Nitrites ppm AP-053:2009 788 600 824 48 600 824 Reserve Alkalinity \$cale 0.20 ASTM D3321 47.2 47.0 46.5 7ereezing Point 9F ASTM D3321 47.2 47.0 46.5 7ereezing Point 9F ASTM D3321 47.2 47.0 46.5 7ereezing Point 9F ASTM D6130 399.0 345.5 389.0 7o 9ass 0	Sample Number		Client Info		WC0833822	WC0779842	WC0712310
Oil Age hrs Client Info 2672 2248 2248 Oil Changed Client Info Not Changd N/A Not Changd Sample Status NORMAL NORMAL NORMAL NORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2 Specific Gravity "ASTM D1287 7.96 7.89 7.91 Nitrites ppm AP-053:2009 788 600 824 Reserve Alkalinity Scale 0-14 ASTM D1321 Percentage Glycol % ASTM D3321 47.2 47.0 46.5 Freezing Point "F ASTM D3321 -28 -28 -26 Total Dissolved Solids 399.0 345.5 389.0 0 Carboxylate brimit/base current history1 history2 Silicon ppm ASTM D6130 0 35 89 70 Phosphorus ppm ASTM D6130 0	Sample Date		Client Info		23 Oct 2023	06 Mar 2023	19 Sep 2022
Oil Changed Sample Status Client Info Sample Status Not Changd NORMAL NORMAL NORMAL Not Changd NORMAL NORMAL Not Changd NORMAL NORMAL Not Changd NORMAL NoRMAL NORMAL NORMAL <th>Machine Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>2672</th> <th>2501</th> <th>2248</th>	Machine Age	hrs	Client Info		2672	2501	2248
Sample Status	Oil Age	hrs	Client Info		2672	2248	2248
PHYSICAL TEST RESULTS method limit/base current history1 history2	Oil Changed		Client Info		Not Changd	N/A	Not Changd
Specific Gravity	Sample Status				NORMAL	NORMAL	NORMAL
pH Scale 0-14 ASTM D1287 7.96 7.89 7.91 Nitrites ppm AP-053-2009 788 600 824 Reserve Alkalinity Scale 0-20 "ASTM D1121 Percentage Glycol % ASTM D3321 47.2 47.0 46.5 Freezing Point °F ASTM D3321 -28 -28 -26 Total Dissolved Solids 399.0 345.5 389.0 345.5 389.0 Carboxylate real mit by assessive pass pass pass pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 35 89 70 Phosphorus ppm ASTM D6130 0 332 730 376 Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 >15 0 0 0 <t< th=""><th>PHYSICAL TEST R</th><th>RESULTS</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	PHYSICAL TEST R	RESULTS	method	limit/base	current	history1	history2
Nitrites	Specific Gravity		*ASTM D1298		1.064	1.064	1.063
Reserve Alkalinity Scale 0-20 "ASTM D1121 Percentage Glycol % ASTM D3321 47.2 47.0 46.5 Freezing Point °F ASTM D3321 -28 -28 -26 Total Dissolved Solids 399.0 345.5 389.0 Carboxylate	pH	Scale 0-14	ASTM D1287		7.96	7.89	7.91
Percentage Glycol % ASTM D3321 47.2 47.0 46.5	Nitrites	ppm	AP-053:2009		788	600	824
Freezing Point °F ASTM D3321 -28 -28 -26 Total Dissolved Solids 399.0 345.5 389.0 Carboxylate fail pass pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 35 89 70 Phosphorus ppm ASTM D6130 0 332 730 376 Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 <1 <1 0 Copper ppm ASTM D6130 >10 <1 <1 <1 <1 <td< th=""><th>Reserve Alkalinity</th><th>Scale 0-20</th><th>*ASTM D1121</th><th></th><th></th><th></th><th></th></td<>	Reserve Alkalinity	Scale 0-20	*ASTM D1121				
Total Dissolved Solids	Percentage Glycol	%	ASTM D3321		47.2	47.0	46.5
Carboxylate fail pass pass CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 35 89 70 Phosphorus ppm ASTM D6130 0 332 730 376 Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Zinc ppm ASTM D6130 >10 <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 </th <th>Freezing Point</th> <th>°F</th> <th>ASTM D3321</th> <th></th> <th>-28</th> <th>-28</th> <th>-26</th>	Freezing Point	°F	ASTM D3321		-28	-28	-26
CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 35 89 70 Phosphorus ppm ASTM D6130 0 332 730 376 Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1 Copper ppm ASTM D6130 >10 <1 <1 0 0 Lead ppm ASTM D6130 >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Total Dissolved Solids				399.0	345.5	389.0
Silicon	Carboxylate				fail	pass	pass
Phosphorus ppm ASTM D6130 0 332 730 376 Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1 Copper ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Tin ppm ASTM D6130 >10 <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498	CORROSION INH	IBITORS	method	limit/base	current	history1	history2
Boron ppm ASTM D6130 0 143 265 248 Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1 Copper ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Tin ppm ASTM D6130 >10 <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current	Silicon	ppm	ASTM D6130	0	35	89	70
Molybdenum ppm ASTM D6130 950 549 1010 877 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1 Copper ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Tin ppm ASTM D6130 >10 <1 0 0 Zinc ppm ASTM D6130 <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2	Phosphorus	ppm	ASTM D6130	0	332	730	376
CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1 Copper ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Tin ppm ASTM D6130 >10 <1 0 0 Zinc ppm ASTM D6130 <1 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Boron	ppm	ASTM D6130	0	143	265	248
Iron ppm ASTM D6130 >15 0 0 0 Aluminum ppm ASTM D6130 >10 0 0 <1	Molybdenum	ppm	ASTM D6130	950	549	1010	877
Aluminum ppm ASTM D6130 >10 0 <1	CORROSION		method	limit/base	current	history1	history2
Copper ppm ASTM D6130 >10 3 5 6 Lead ppm ASTM D6130 >10 <1 <1 0 Tin ppm ASTM D6130 >10 <1 0 0 Zinc ppm ASTM D6130 <1 <1 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 15 36 22 CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Iron	ppm	ASTM D6130	>15	0	0	0
Lead ppm ASTM D6130 > 10 <1	Aluminum	ppm	ASTM D6130	>10	0	0	<1
Tin ppm ASTM D6130	Copper	ppm	ASTM D6130	>10	3	5	6
Zinc ppm ASTM D6130 <1	Lead	ppm	ASTM D6130	>10	<1	<1	0
CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 15 36 22 CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Tin	ppm	ASTM D6130	>10	<1	0	0
Chlorine ppm ASTM D6130 15 36 22 CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Zinc	ppm	ASTM D6130		<1	<1	<1
CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium ppm ASTM D6130 3707 6015 3043 Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Chlorine	ppm	ASTM D6130		15	36	22
Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	CARRIER SALTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D6130 1586 3498 1150 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 1 2 1	Sodium	ppm	ASTM D6130		3707	6015	3043
Calcium ppm ASTM D6130 1 2 1		• •					
	SCALE POTENTI	AL _	method	limit/base	current	history1	history2
	Calcium	ppm	ASTM D6130		1	2	1
	Magnesium	ppm				3	



COOLANT REPORT



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







Laboratory Sample No. Lab Number Unique Number : 10723220

: WC0833822 : 05994860

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 31 Oct 2023 Diagnosed

: 03 Nov 2023 Diagnostician : Jonathan Hester

Test Package : COOL- (Additional Tests: COOL, ICP) 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)

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST WICHITA, KS US 67213 Contact: DOUG KING doug.king@sherwood.net

T: (316)617-3161 F: x: