

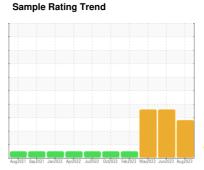
COOLANT REPORT

Martinsville

[Martinsville] Coolant - Port Main Engine (Jacket)

Component Coolant

CATERPILLAR ELC (--- GAL)





DIAGNOSIS

Recommendation

We recommend that you perform a partial drain and top off with straight antifreeze to increase level of glycol. (Customer Sample Comment: George Willis

Corrosion

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

Contaminants

There is no indication of any contamination in the coolant.

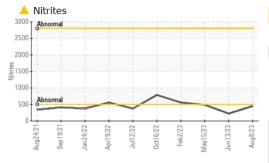
Coolant Condition

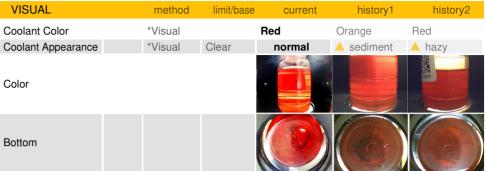
Carboxylate test failed. The glycol level is low. The pH level of this fluid is within the acceptable limits.

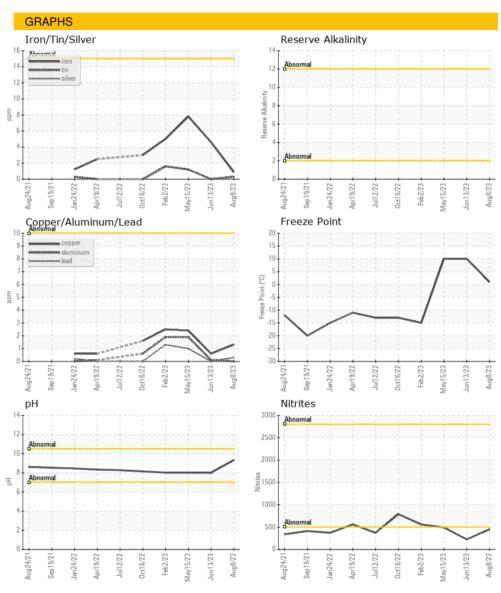
Machine Age hrs Client Info 16703 15506 14928 Oil Age hrs Client Info 16703 15506 14928 Oil Changed Client Info Changed Not Changd N/A Sample Status MARGINAL ABNORMAL ABNORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age hrs Client Info 16703 15506 14928 Oil Age hrs Client Info 16703 15506 14928 Oil Changed Client Info Changed Not Changd N/A Sample Status MARGINAL ABNORMAL ABNORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2 Specific Gravity *ASTM D1287 9.32 8.00 8.02 Nitrites ppm AP-053:2009 448 224 488 Reserve Alkalinity \$cale 040 ASTM D3321 1 10 10 Percentage Glycol % ASTM D3321 1 10 10 Total Dissolved Solids STM D3321 1 10 10 CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 65 10 25 Phosphorus ppm ASTM D6130	Sample Number		Client Info		WC0769134	WC0769439	WC0719200	
Oil Age hrs Client Info 16703 15506 14928 Oil Changed Client Info Changed Not Changd N/A Sample Status MARGINAL ABNORMAL ABNORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2 Specific Gravity "ASTM D1287 9.32 8.00 8.02 Nitrites ppm A9-053:2009 448 224 488 Reserve Alkalinity Scale 0:20 "ASTM D1121 Percentage Glycol % ASTM D1321 <td< td=""><td>Sample Date</td><td></td><td>Client Info</td><td></td><th>08 Aug 2023</th><td>13 Jun 2023</td><td>15 May 2023</td></td<>	Sample Date		Client Info		08 Aug 2023	13 Jun 2023	15 May 2023	
Oil Changed Sample Status Client Info Changed MARGINAL Not Changd ABNORMAL N/A ABNORMAL PHYSICAL TEST RESULTS method limit/base current history1 history2 Specific Gravity "ASTM D1298" 1.043 1.033 1.033 pH Scale 0-14 ASTM D1287 9.32 8.00 8.02 Nitrites ppm AP-053:2009 448 224 488 Reserve Alkalinity Scale 0-20 "ASTM D1121 Percentage Glycol "S ASTM D3321 1 10 10 10 Total Dissolved Solids STATM D3321 1 1 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	Machine Age	hrs	Client Info		16703	15506	14928	
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Specific Gravity	Sample Status				MARGINAL	ABNORMAL	ABNORMAL	
pH Scale 0-14 Nitrites AP-053:2009 448 224 488 Reserve Alkalinity Scale 0-20 *ASTM D1121 Percentage Glycol % ASTM D3321 32.1 ≥ 25.8 ≥ 25.6 ≥ 25.6 Freezing Point °F ASTM D3321 1 1 10 10 15.5 Carboxylate Fall pass fail pass fail CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 65 10 25 Phosphorus ppm ASTM D6130 0 0 49 Boron ppm ASTM D6130 0 165 0 25 Molybdenum ppm ASTM D6130 950 728 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1 5 8 Aluminum ppm ASTM D6130	PHYSICAL TEST R	ESULTS	method	limit/base	current	history1	history2	
Nitrites ppm AP-053:2009 448 224 488 Reserve Alkalinity Scale 0:20 *ASTM D1121 Percentage Glycol % ASTM D3321 32.1 25.8 25.6 Freezing Point °F ASTM D3321 1 10 10 Total Dissolved Solids 238.5 184.0 185.5 Carboxylate fail pass fail CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 65 10 25 Phosphorus ppm ASTM D6130 0 0 0 49 Boron ppm ASTM D6130 0 165 0 25 Molybdenum ppm ASTM D6130 950 728 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130	Specific Gravity		*ASTM D1298		1.043	1.033	1.033	
Reserve Alkalinity Scale 0-20 *ASTM D1121 <	рН	Scale 0-14	ASTM D1287		9.32	8.00	8.02	
Percentage Glycol % ASTM D3321 ▲ 32.1 ▲ 25.8 ▲ 25.6 Freezing Point °F ASTM D3321 1 10 10 Total Dissolved Solids 238.5 184.0 185.5 Carboxylate fail pass fail CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 0 65 10 0 25 Phosphorus ppm ASTM D6130 0 0 0 0 0 49 Boron ppm ASTM D6130 0 0 165 0 0 25 25 Molybdenum ppm ASTM D6130 0 0 165 0 0 25 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1 5 8	Nitrites	ppm	AP-053:2009		448	224	488	
Treezing Point	Reserve Alkalinity	Scale 0-20	*ASTM D1121					
Total Dissolved Solids	Percentage Glycol	%	ASTM D3321		32.1	25.8	△ 25.6	
Carboxylate fail pass fail CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 65 10 25 Phosphorus ppm ASTM D6130 0 0 0 49 Boron ppm ASTM D6130 0 165 0 25 Molybdenum ppm ASTM D6130 950 728 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1	Freezing Point	°F	ASTM D3321		1	10	10	
CORROSION INHIBITORS method limit/base current history1 history2 Silicon ppm ASTM D6130 0 65 10 25 Phosphorus ppm ASTM D6130 0 0 0 49 Boron ppm ASTM D6130 0 165 0 25 Molybdenum ppm ASTM D6130 950 728 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1	Total Dissolved Solids				238.5	184.0	185.5	
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Molybdenum ppm ASTM D6130 950 728 637 568 CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1	<td>Phosphorus</td> <td>ppm</td> <td>ASTM D6130</td> <td>0</td> <th>0</th> <td>0</td> <td>49</td>	Phosphorus	ppm	ASTM D6130	0	0	0	49
CORROSION method limit/base current history1 history2 Iron ppm ASTM D6130 >15 <1	Boron	ppm	ASTM D6130	0	165	0	25	
Iron ppm ASTM D6130 >15 <1 5 8 Aluminum ppm ASTM D6130 >10 0 <1 2 Copper ppm ASTM D6130 >10 1 <1 2 Lead ppm ASTM D6130 >10 <1 0 1 Tin ppm ASTM D6130 >10 <1 0 1 Zinc ppm ASTM D6130 <1 0 <1 1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 29 18 81 CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 5024 4063 3610 Potassium ppm ASTM D6130 425 112 63 SCALE POTENTIAL method limit/base current history1 history2 <t< td=""><td>Molybdenum</td><td>ppm</td><td>ASTM D6130</td><td>950</td><th>728</th><td>637</td><td>568</td></t<>	Molybdenum	ppm	ASTM D6130	950	728	637	568	
Aluminum ppm ASTM D6130 >10 0 <1 2 Copper ppm ASTM D6130 >10 1 <1 2 Lead ppm ASTM D6130 >10 <1 0 1 Tin ppm ASTM D6130 >10 <1 0 1 Zinc ppm ASTM D6130 <1 0 <1 CONTAMINANTS method limit/base current history1 history2 Chlorine ppm ASTM D6130 29 18 81 CARRIER SALTS method limit/base current history1 history2 Sodium ppm ASTM D6130 5024 4063 3610 Potassium ppm ASTM D6130 425 112 63 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 18 7 7	CORROSION		method	limit/base	current	history1	history2	
Copper ppm ASTM D6130 >10 1 <1 2 Lead ppm ASTM D6130 >10 <1	Iron	ppm	ASTM D6130	>15	<1	5	8	
Lead ppm ASTM D6130 >10 <1 0 1 Tin ppm ASTM D6130 >10 <1	Aluminum	ppm	ASTM D6130	>10	0	<1	2	
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Potassium ppm ASTM D6130 425 112 63 SCALE POTENTIAL method limit/base current history1 history2 Calcium ppm ASTM D6130 18 7 7	CARRIER SALTS		method	limit/base	current	history1	history2	
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Calcium ppm ASTM D6130 18 7 7	Potassium	• •	ASTM D6130		425	112	63	
	SCALE POTENTI	AL	method	limit/base	current	history1	history2	
	Calcium	ppm	ASTM D6130		18	7	7	
	Magnesium	ppm	ASTM D6130		4	16	16	



COOLANT REPORT









Certificate L2367

Laboratory Sample No.

Lab Number

: 05927677 Unique Number : 10607624

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0769134 Received : 17 Aug 2023 Diagnosed

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: 24 Aug 2023 Diagnostician : Doug Bogart

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.

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Report Id: MARCAT [WUSCAR] 05927677 (Generated: 08/24/2023 10:59:17) Rev: 1