



LIEBHERR

COOLANT REPORT

CORROSION

NORMAL

CONTAMINANTS

SEVERE

COOLANT CONDITION

ABNORMAL



Area

[593756]

Machine Id

LIEBHERR HS8100HD 184996

Component

Coolant

Fluid

EXTENDED LIFE COOLANT (--- GAL)

RECOMMENDATION

Clean cooling system with an acid-based cleaner according to directions, and flush with water afterwards thoroughly. Refill with 50/50 premix of manufacturer recommended coolant. Resample in 30 days.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0284985	LH0270413	LH0261255
Sample Date		Client Info		26 Jan 2024	07 Sep 2023	04 May 2023
Machine Age	hrs	Client Info		12043	11071	10190
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changed
Sample Status				SEVERE	SEVERE	SEVERE

CORROSION

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

Iron	ppm	ASTM D5185(m)	>15	0	<1	2
Aluminum	ppm	ASTM D5185(m)	>10	1	2	2
Copper	ppm	ASTM D5185(m)	>10	5	7	▲ 11
Lead	ppm	ASTM D5185(m)	>10	0	0	1
Tin	ppm	ASTM D5185(m)	>10	0	0	<1
Silver	ppm	ASTM D5185(m)	>10	<1	<1	<1
Zinc	ppm	ASTM D5185(m)	>10	6	6	8

CONTAMINANTS

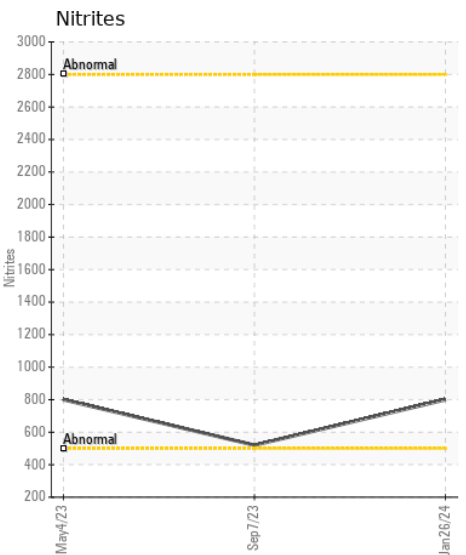
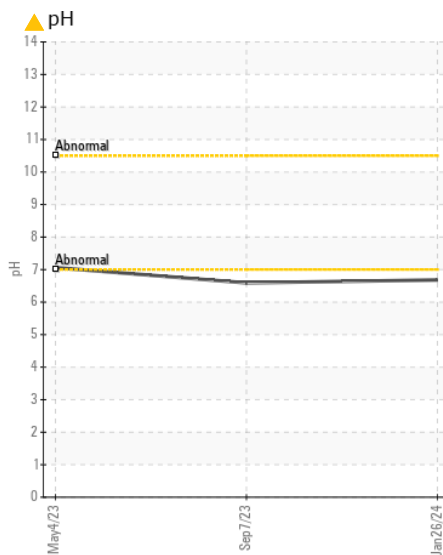
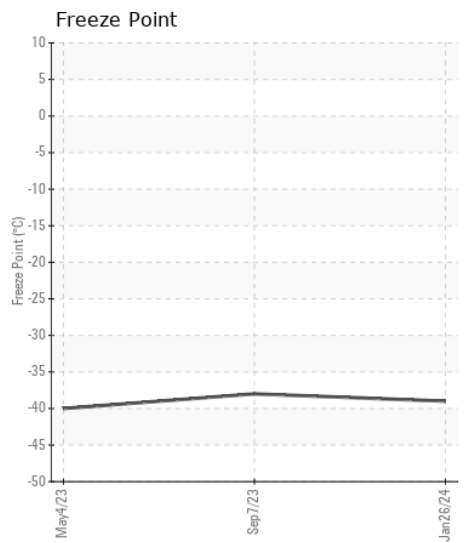
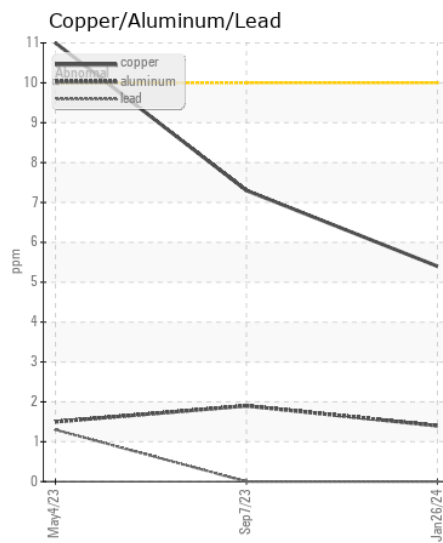
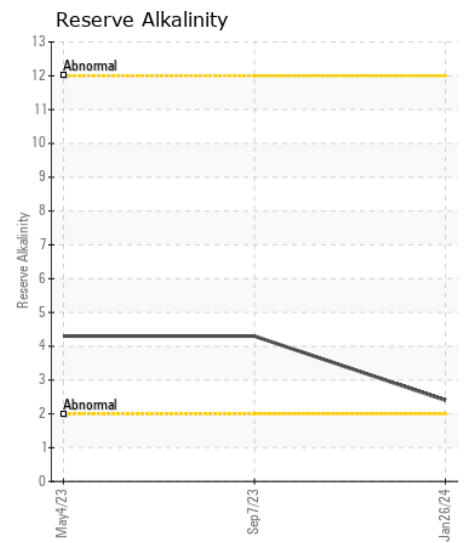
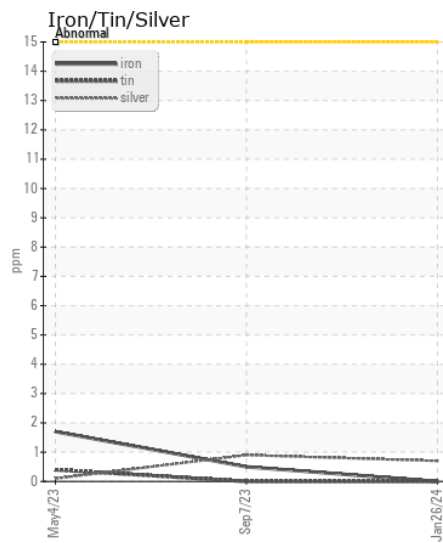
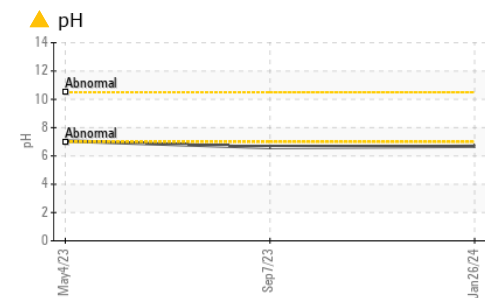
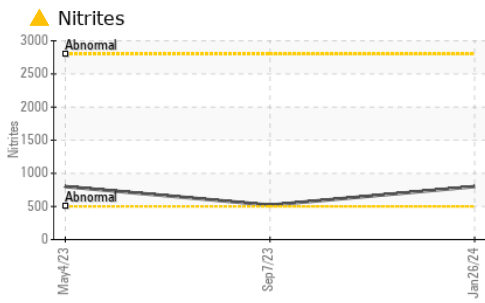
Hardness is critically elevated. Elevated hardness can allow scale formation that will reduce cooling system effectiveness.

Calcium	ppm	ASTM D5185(m)	>100	49	47	50
Magnesium	ppm	ASTM D5185(m)	>40	14	16	24
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Coolant Appearance		Visual*	Clear	Clear	Cloudy	Clear

COOLANT CONDITION

The coolant is cloudy indicating either an overconcentration of coolant additives, or a mixing of incompatible coolant technologies. The nitrite level is acceptable. The pH is low which causes rust formation. The reserve alkalinity of this fluid is acceptable.

Specific Gravity		ASTM D1298*		1.069	1.069	1.070
pH	Scale 0-14	ASTM D1287*	9.0	▲ 6.68	▲ 6.59	7.06
Nitrites	ppm	Alcan Test Kit*		800	520	800
Reserve Alkalinity	Scale 0-20	ASTM D1121*		2.4	4.3	4.3
Percentage Glycol	%	ASTM D3321*	50	51.9	51.7	52.1
Freezing Point	°C	ASTM D3321*	-40	-39	-38	-40
Carboxylate				---	---	---
Silicon	ppm	ASTM D5185(m)		12	15	21
Phosphorus	ppm	ASTM D5185(m)		9	11	10
Boron	ppm	ASTM D5185(m)		16	20	27
Molybdenum	ppm	ASTM D5185(m)		33	9	10
Sodium	ppm	ASTM D5185(m)		9062	9218	3682
Potassium	ppm	ASTM D5185(m)		313	353	451
Coolant Color		Visual*	Orange/R	Red	Orange	Red



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0284985 **Received** : 05 Mar 2024
Lab Number : 02620048 **Tested** : 05 Mar 2024
Unique Number : 5737158 **Diagnosed** : 06 Mar 2024 - Kevin Marson
Test Package : COOL (Additional Tests: GlycolType)

HIGGS & HIGGS
 RR # 4
 ST THOMAS, ON
 CA N5P 3S8
 Contact: Bernie Higgs

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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