

VITRAN EXPRESS [235803] **GENERAC A03116**

Component Coolant

Fluid {not provided} (--- LTR)

RECOMMENDATION

The coolant change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

CORROSION

Iron and lead and tin ppm levels are severe. Aluminum ppm levels are abnormal. The iron level is high indicating rust in the system which clogs the cooling system. The high metal levels indicate corrosion in the system.

CONTAMINANTS

There is no indication of any contamination in the component(unconfirmed).

COOLANT CONDITION

The reserve alkalinity of this fluid is lower than acceptable. The coolant is cloudy indicating either an overconcentration of coolant additives, or a mixing of incompatible coolant technologies. The low nitrite level indicates reduced cavitation protection which leads to corrosion and ammonia formation. The pH level of this fluid is within the acceptable limits.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WA0020915	WA0017864	WA0016290
Sample Date		Client Info		15 Feb 2024	27 May 2022	10 Mar 2021
Machine Age	hrs	Client Info		95	91	75
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron			. 15	6 0	• 222	1 64
Aluminum	ppm	ACTM DE105(III)	>10	00	 333 40 	4
Aluminum	ррп		>10	<u> </u>	- 12	4
Copper	ppm	ASTM D5185(m)	>10	1	2	2
Lead	ppm	ASTM D5185(m)	>10	60	1 35	25
Tin	ppm	ASTM D5185(m)	>10	• 44	1 09	45
Silver	ppm	ASTM D5185(m)	>10	1	<1	0
Zinc	ppm	ASTM D5185(m)	>10	4	3	4
Calcium	ppm	ASTM D5185(m)	>100	1	4	2
Magnesium	ppm	ASTM D5185(m)	>40	<1	<1	2
				NORM	NODU	
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Appearance Odor	scalar scalar	Visual* Visual*	NORML	NORML	NORML	NORML
Appearance Odor Coolant Appearance	scalar scalar	Visual* Visual* Visual*	NORML NORML Clear	NORML NORML	NORML	NORML NORML
Appearance Odor Coolant Appearance Specific Gravity	scalar scalar	Visual* Visual* Visual* ASTM D1298*	NORML NORML Clear	NORML NORML Opaque 1.063	NORML NORML Opaque 1.067	NORML NORML Very cld
Appearance Odor Coolant Appearance Specific Gravity pH	scalar scalar Scale 0-14	Visual* Visual* Visual* ASTM D1298* ASTM D1287*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6	NORML NORML Opaque 1.067 8.15	NORML NORML Very cld 1.067 8.02
Appearance Odor Coolant Appearance Specific Gravity pH Nitrites	scalar scalar Scale 0-14 ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480	NORML NORML Opaque 1.067 8.15 600	NORML NORML Very cld 1.067 8.02 360
Appearance Odor Coolant Appearance Specific Gravity pH Nitrites Reserve Alkalinity	scalar scalar Scale 0-14 ppm Scale 0-20	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6	NORML NORML Opaque 1.067 8.15 600 2.5	NORML NORML Very cld 1.067 8.02 360 2.6
Appearance Odor Coolant Appearance Specific Gravity pH Nitrites Reserve Alkalinity Percentage Glycol	scalar scalar Scale 0-14 ppm Scale 0-20 %	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7	NORML NORML Opaque 1.067 8.15 600 2.5 49.3	NORML NORML Very cld 1.067 8.02 360 2.6 50.0
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing Point	scalar scalar Scale 0-14 ppm Scale 0-20 % °C	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 -37
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylate	scalar scalar Scale 0-14 ppm Scale 0-20 % °C	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 -37
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSilicon	scalar scalar Scale 0-14 ppm Scale 0-20 % °C	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321*	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 14	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 -37 15
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSiliconPhosphorus	scalar scalar Scale 0-14 ppm Scale 0-20 % °C ppm ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321* ASTM D5185(m) ASTM D5185(m)	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24 66	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 14 21	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 2.6 50.0 -37 15 28
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSiliconPhosphorusBoron	scalar scalar Scale 0-14 ppm Scale 0-20 % °C ppm ppm ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321* ASTM D3321* ASTM D5185(m) ASTM D5185(m)	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24 66 247	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 14 21 232	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 2.6 50.0 -37 15 28 28 230
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSiliconPhosphorusBoronMolybdenum	scalar scalar Scale 0-14 ppm Scale 0-20 % °C ppm ppm ppm ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321* ASTM D3321* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24 66 247 29	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 14 21 232 3	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 2.6 50.0 10 50.0 15 28 28 28 230 3
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSiliconPhosphorusBoronMolybdenumSodium	scalar scalar Scale 0-14 ppm Scale 0-20 % Cale 0-20 % Scale 0-20 % Scale 0-20 % Scale 0-20 % Scale 0-14 ppm ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1287* Alcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321* ASTM D3321* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24 66 247 29 3100	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 -33 -33 -33 -21 232 3 811	NORML NORML Very cld 1.067 8.02 360 2.6 50.0 2.6 50.0 -37 15 28 28 230 3 3 898
AppearanceOdorCoolant AppearanceSpecific GravitypHNitritesReserve AlkalinityPercentage GlycolFreezing PointCarboxylateSiliconPhosphorusBoronMolybdenumSodiumPotassium	scalar scalar scalar scala 0-14 ppm scale 0-20 % °C °C ppm ppm ppm ppm ppm ppm	Visual* Visual* Visual* ASTM D1298* ASTM D1298* ASTM D1287* AIcan Test Kit* ASTM D1121* ASTM D3321* ASTM D3321* ASTM D3321* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	NORML NORML Clear	NORML NORML Opaque 1.063 10.6 480 4.6 46.7 -32 24 66 247 29 3100 704	NORML NORML Opaque 1.067 8.15 600 2.5 49.3 -33 14 21 232 3 811 1680	NORML NORML NORML 1.067 8.02 360 2.6 50.0 2.6 50.0 10 2.8 2.0 3 3 28 230 3 3 898 2079

CORROSION SEVERE CONTAMINANTS COOLANT CONDITION

ABNORMAL ABNORMAL



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Wajax Power Systems CALA Sample No. : WA0020915 Received : 21 Feb 2024 10 Diesel Drive Lab Number : 02617266 : 26 Feb 2024 Toronto, ON Tested ISO 17025:2017 Accredited Laboratory : 26 Feb 2024 - Kevin Marson CA M8W 2T8 Unique Number : 5734376 Diagnosed Test Package : COOL (Additional Tests: BottomAnalysis, FILTERPATCH, GlycolType, PQ) Contact: David Gilkes To discuss this sample report, contact Customer Service at 1-800-268-2131. dgilkes@wajax.com T: (416)259-3281 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (416)251-6191 Validity of results and interpretation are based on the sample and information as supplied.

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