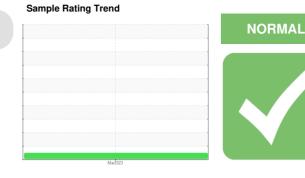


# **COOLANT REPORT**

## FRONTIER II [200006776] 05WEA86933

Coolant

**CLARIANT ANTIFROGEN N (--- LTR)** 



### Recommendation

The fluid is suitable for further service. No corrective action is recommended at this time.

#### 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 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         0	Sample Number		Client Info		NX05818391		
Oil Age         hrs         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status         NORMAL         NORMAL             PHYSICAL TEST RESULTS method         limit/base         current         history1         history2           Specific Gravity         *ASTM D1287         8.5         7.91             PH         \$cale 0.41         ASTM D1287         8.5         7.91             Nitrites         ppm         ASTM D1121         4.0              Reserve Alkalinity         \$cale 0.20         *ASTM D1121         4.0              Percentage Glycol         %         ASTM D1321         44         44.1             Freezing Point         °F         ASTM D3321         -32         -21             Total Dissolved Solids         252.5               Carboxylate         method         limit/base         current         history1         history2	Sample Date		Client Info		25 Mar 2023		
Oil Changed   Client Info	Machine Age	hrs	Client Info		0		
Sample Status	Oil Age	hrs	Client Info		0		
PHYSICAL TEST RESULTS   method   limit/base   current   history1   history2	Oil Changed		Client Info		N/A		
Specific Gravity	Sample Status				NORMAL		
pH         Scale 0-14         ASTM D1287         8.5         7.91             Nitrites         ppm         AP-053-2009         72             Reserve Alkalinity         Scale 0-20         "ASTM D1121         4.0             Percentage Glycol         %         ASTM D3321         44         44.1             Total Dissolved Solids         252.5               Carboxylate         fail              CORROSION INHIBITORS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D6130         3         8             CORROSION INHIBITORS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D6130         5         0             Solicon         ppm         ASTM D6130         15         12             Boron         ppm         ASTM D6130         10         <1          -	PHYSICAL TEST F	RESULTS	method	limit/base	current	history1	history2
Nitrites	Specific Gravity		*ASTM D1298	1.11	1.060		
Reserve Alkalinity	pH	Scale 0-14	ASTM D1287	8.5	7.91		
Percentage Glycol   %   ASTM D3321   44   44.1	Nitrites	ppm	AP-053:2009		72		
Freezing Point	Reserve Alkalinity	Scale 0-20	*ASTM D1121	4.0			
Total Dissolved Solids	Percentage Glycol	%	ASTM D3321	44	44.1		
Carboxylate         fail             CORROSION INHIBITORS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D6130         3         8             Phosphorus         ppm         ASTM D6130         5         0             Boron         ppm         ASTM D6130         15         12             Molybdenum         ppm         ASTM D6130         110         2355             CORROSION         method         limit/base         current         history1         history2           Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1	Freezing Point	°F	ASTM D3321	-32	-21		
CORROSION INHIBITORS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D6130         3         8             Phosphorus         ppm         ASTM D6130         5         0             Boron         ppm         ASTM D6130         15         12             Molybdenum         ppm         ASTM D6130         110         235             CORROSION         method         limit/base         current         history1         history2           Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1	Total Dissolved Solids				252.5		
Silicon	Carboxylate				fail		
Phosphorus         ppm         ASTM D6130         5         0             Boron         ppm         ASTM D6130         15         12             Molybdenum         ppm         ASTM D6130         110         235             CORROSION         method         limit/base         current         history1         history2           Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1             Copper         ppm         ASTM D6130         >10         <1             Lead         ppm         ASTM D6130         >10         <1             Tin         ppm         ASTM D6130         >10         0             Zinc         ppm         ASTM D6130         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Chlorine         ppm         ASTM D6130         2400         5082	CORROSION INH	IBITORS	method	limit/base	current	history1	history2
Boron	Silicon	ppm	ASTM D6130	3	8		
Molybdenum         ppm         ASTM D6130         110         235             CORROSION         method         limit/base         current         history1         history2           Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1	Phosphorus	ppm	ASTM D6130	5	0		
CORROSION         method         limit/base         current         history1         history2           Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1	Boron	ppm	ASTM D6130	15	12		
Iron         ppm         ASTM D6130         >15         1             Aluminum         ppm         ASTM D6130         >10         <1	Molybdenum	ppm	ASTM D6130	110	235		
Aluminum         ppm         ASTM D6130         >10         <1	CORROSION		method	limit/base	current	history1	history2
Copper         ppm         ASTM D6130         >10         <1             Lead         ppm         ASTM D6130         >10         <1	Iron	ppm	ASTM D6130	>15	1		
Lead         ppm         ASTM D6130         >10         <1             Tin         ppm         ASTM D6130         >10         0             Zinc         ppm         ASTM D6130         <1	Aluminum	ppm	ASTM D6130	>10	<1		
Tin         ppm         ASTM D6130         >10         0             Zinc         ppm         ASTM D6130         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Chlorine         ppm         ASTM D6130         16             CARRIER SALTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D6130         5         21             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	Copper	ppm	ASTM D6130	>10	<1		
Zinc         ppm         ASTM D6130         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Chlorine         ppm         ASTM D6130         16             CARRIER SALTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D6130         2400         5082             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	Lead	ppm	ASTM D6130	>10	<1		
CONTAMINANTS         method         limit/base         current         history1         history2           Chlorine         ppm         ASTM D6130         16             CARRIER SALTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D6130         2400         5082             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	Tin	ppm	ASTM D6130	>10	0		
Chlorine         ppm         ASTM D6130         16             CARRIER SALTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D6130         2400         5082             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	Zinc	ppm	ASTM D6130		<1		
CARRIER SALTS         method         limit/base         current         history1         history2           Sodium         ppm         ASTM D6130         2400         5082             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	CONTAMINANTS	;	method	limit/base	current	history1	history2
Sodium         ppm         ASTM D6130         2400         5082             Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	Chlorine	ppm	ASTM D6130		16		
Potassium         ppm         ASTM D6130         5         21             SCALE POTENTIAL         method         limit/base         current         history1         history2           Calcium         ppm         ASTM D6130         2	CARRIER SALTS	;	method	limit/base	current	history1	history2
SCALE POTENTIAL method limit/base current history1 history2  Calcium ppm ASTM D6130 2	Sodium	ppm	ASTM D6130	2400	5082		
Calcium         ppm         ASTM D6130         2	Potassium	ppm	ASTM D6130	5	21		
	SCALE POTENTI	AL	method	limit/base	current	history1	history2
	Calcium	ppm	ASTM D6130		2		



### **COOLANT REPORT**





GRAPHS		
Iron/Tin/Silver	Reserve Alkalinity	
Abnormal .	14 <sub>T</sub>	
iron	Abnormal	
ennument Silver	10	
+	o o o	
	9/U9/2	
	± 4 +	
1	2 - Abnormal	
·†		
) <del></del>	53 53	
Mar25,723	Mar25/23 Mar25/23	
Copper/Aluminum/Load	≤ ≤ Freeze Point	
Copper/Aluminum/Lead	10 <sub>T</sub>	
copper	5	
	0	
7+		
†	(2) -5-5-15-15-15-15-15-15-15-15-15-15-15-15	
it :	0 - 15 + 15 + 15 + 15 + 15 + 15 + 15 + 15	
<u> </u>	-20	
	-25	
$\Pi_{i}^{i}$	-30	
2/23	5/23	
Mar25,723	Mar25/23 Mar25/23	
pH	Nitrites	
Τ:	3000 T Abnormal	
Abnormal	2500	
4	2000	
Abnormal		
Abnormal	#1500 - Abnormal	
+	Abnormal	
	Q	
	500	
·	0	
<u> </u>	-500	
Mar25,23	Mar25/23 Mar25/23	
2	2 2	



Certificate 12367

Laboratory

**Sample No.** : NX05818391

Lab Number : 05818391 Unique Number : 10426474

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

Diagnosed

: 12 Apr 2023 : 17 Apr 2023

**NORDEX USA - Chicago** 300 SOUTH WACKER DRIVE, SUITE 1500 CHICAGO, IL US 60606

Contact/Location: DEVIN LINEHAN - NORDEX

: 21 Apr 2023 - Doug Bogart Contact: DEVIN LINEHAN

DLinehan@nordex-online.com T: (312)386-4124

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)

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

F: (312)386-7102

Report Id: NORDEX [WUSCAR] 05818391 (Generated: 05/03/2024 11:50:36) Rev: 1