



# PROBLEM SUMMARY

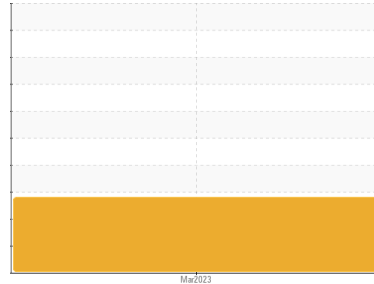
Sample Rating Trend

**WATER**

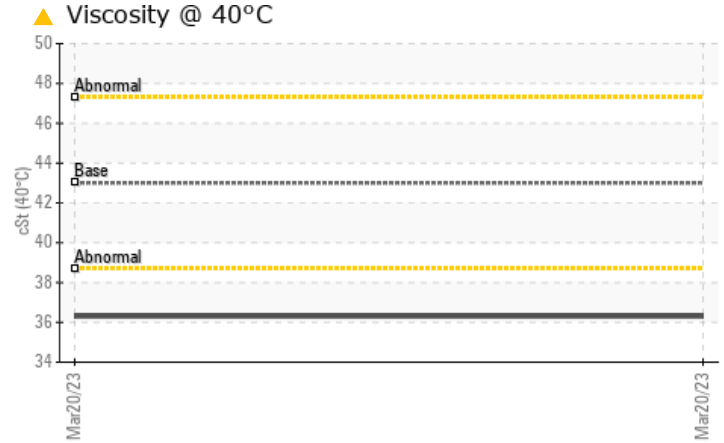
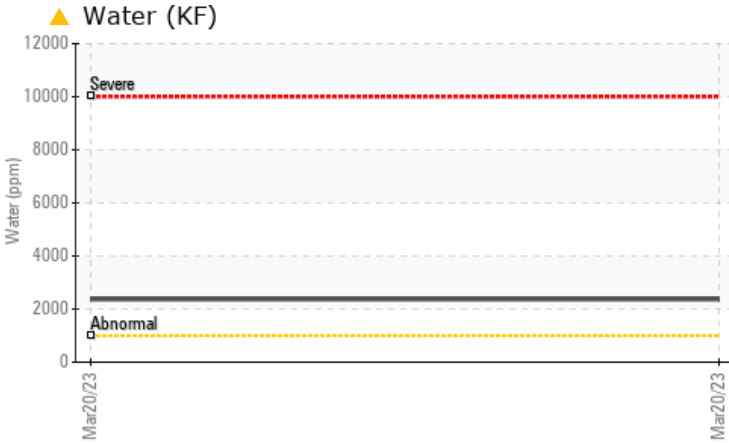


Area  
**[4501182536]**  
Machine Id  
**TRANE SYSTEM B**

Component  
**Screw Compressor**  
Fluid  
**NU-CALGON ZEROL 200TD (7 GAL)**



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	---	---
Water	%	ASTM D6304*	>0.1	▲ <b>0.237</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	▲ <b>2372.9</b>	---	---
Odor	scalar	Visual*	NORML	▲ <b>FREON</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	43.0	▲ <b>36.3</b>	---	---

Customer Id: CIMTOR  
 Sample No.: WC0778478  
 Lab Number: 02546952  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Bill Quesnel CLS,OMA II,MLA-III,LLA-I +1  
 (289)291-4641 x4641  
[Bill.Quesnel@wearcheck.com](mailto:Bill.Quesnel@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.
Filter Fluid	---	---	?	We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil.

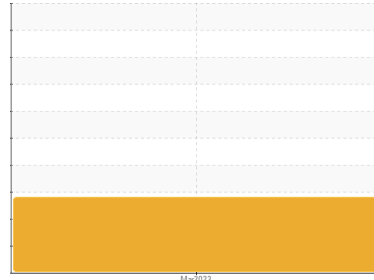
## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

**WATER**



Area  
**[4501182536]**  
 Machine Id  
**TRANE SYSTEM B**

Component  
**Screw Compressor**  
 Fluid  
**NU-CALGON ZEROL 200TD (7 GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate concentration of water present in the oil.

### Fluid Condition

Viscosity of sample indicates oil is within ISO 32 range, due to mixing with the refrigerant. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0778478</b>	---	---
Sample Date	Client Info	<b>20 Mar 2023</b>	---	---
Machine Age	hrs Client Info	<b>23173</b>	---	---
Oil Age	hrs Client Info	<b>400</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	---	---
Iron	ppm ASTM D5185(m) >60	<b>5</b>	---	---
Chromium	ppm ASTM D5185(m) >4	<b>0</b>	---	---
Nickel	ppm ASTM D5185(m)	<b>0</b>	---	---
Titanium	ppm ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm ASTM D5185(m)	<b>0</b>	---	---
Aluminum	ppm ASTM D5185(m) >5	<b>0</b>	---	---
Lead	ppm ASTM D5185(m) >10	<b>&lt;1</b>	---	---
Copper	ppm ASTM D5185(m) >30	<b>3</b>	---	---
Tin	ppm ASTM D5185(m) >15	<b>&lt;1</b>	---	---
Antimony	ppm ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---
Barium	ppm ASTM D5185(m)	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185(m)	<b>0</b>	---	---
Manganese	ppm ASTM D5185(m)	<b>0</b>	---	---
Magnesium	ppm ASTM D5185(m)	<b>0</b>	---	---
Calcium	ppm ASTM D5185(m)	<b>0</b>	---	---
Phosphorus	ppm ASTM D5185(m)	<b>944</b>	---	---
Zinc	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---
Sulfur	ppm ASTM D5185(m)	<b>72</b>	---	---
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

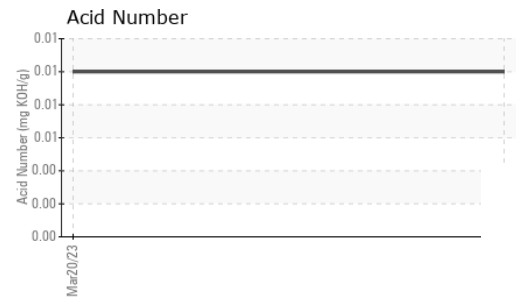
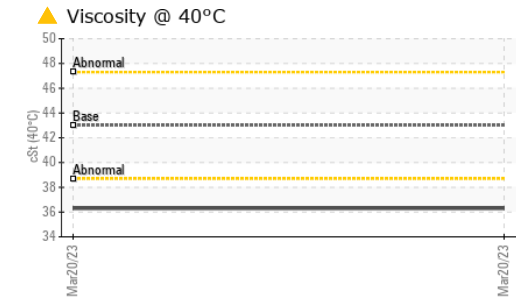
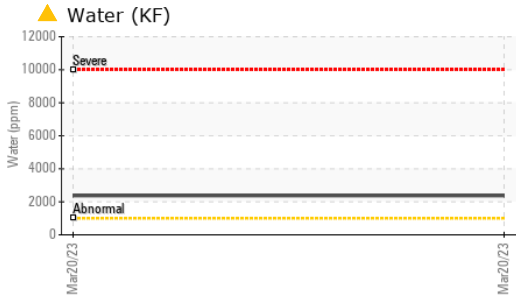
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >50	<b>6</b>	---	---
Sodium	ppm ASTM D5185(m)	<b>0</b>	---	---
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Water	% ASTM D6304* >0.1	<b>▲ 0.237</b>	---	---
ppm Water	ppm ASTM D6304* >1000	<b>▲ 2372.9</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.0	<b>0.01</b>	---	---





# OIL ANALYSIS REPORT



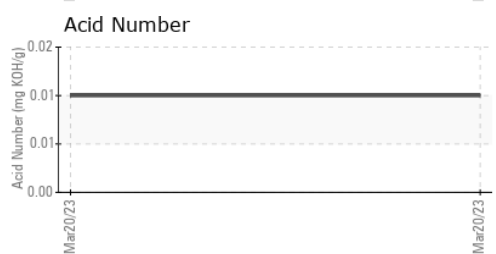
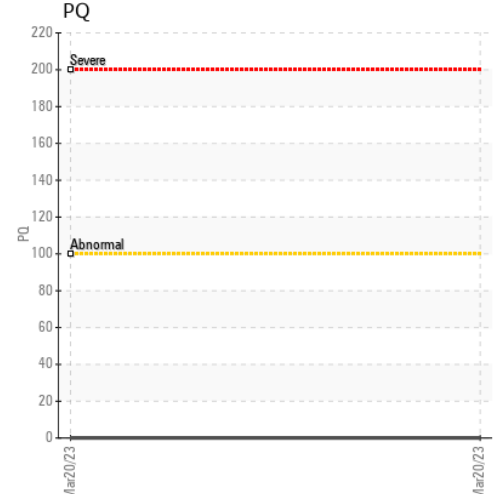
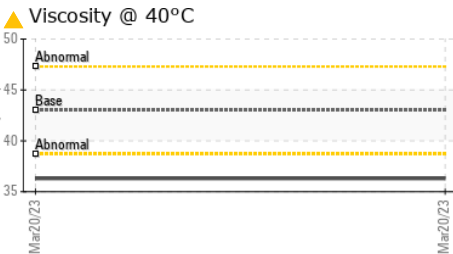
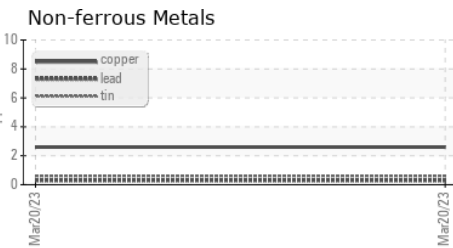
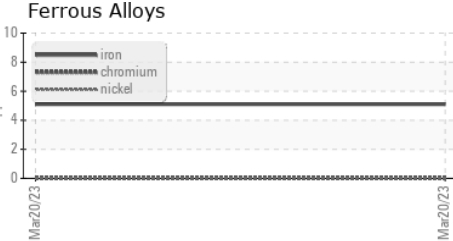
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	▲ FREON	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	43.0 ▲ 36.3	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0778478 **Received** : 22 Mar 2023  
**Lab Number** : 02546952 **Diagnosed** : 27 Mar 2023  
**Unique Number** : 5551962 **Diagnostician** : Bill Quesnel  
**Test Package** : IND 2 ( Additional Tests: KF )

**CIMCO Refrigeration**  
 1551 Corporate Drive  
 Burlington, ON  
 CA L7L 6M3  
 Contact: DAVID PARISE  
 DPARISE@ToROMONT.COM  
 T: (416)465-7581  
 F: (416)465-8815

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.