



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
COPELAND FORT HEALTHCARE CH 2 CIRC 1 (S/N STNU0712000182)

Component
Refrigeration Compressor

Fluid
{not provided} (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0730385	WCI2334374	WCI2315096
Sample Date		Client Info		15 Apr 2024	10 Apr 2019	11 Jun 2018
Machine Age	yrs	Client Info		0	8	7
Oil Age	yrs	Client Info		0	8	7
Filter Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>8	0	<1	0
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	<1	<1
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

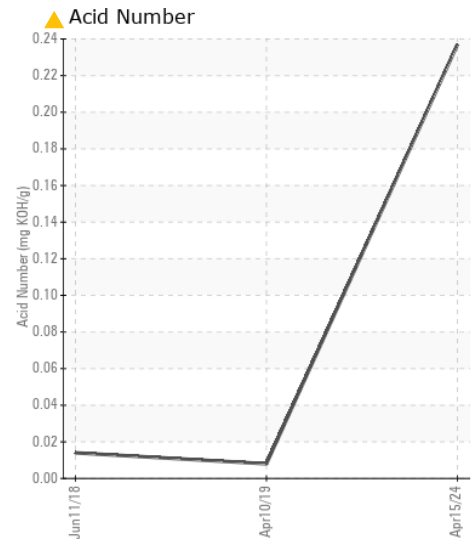
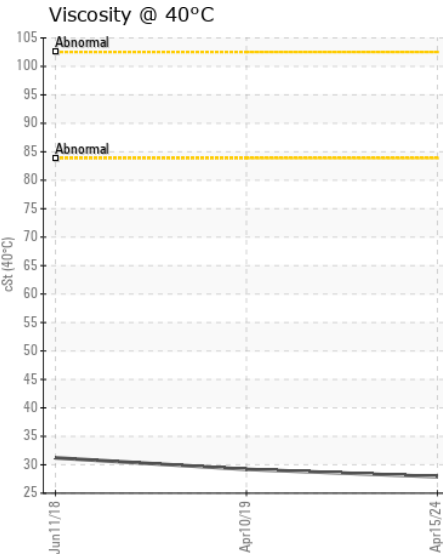
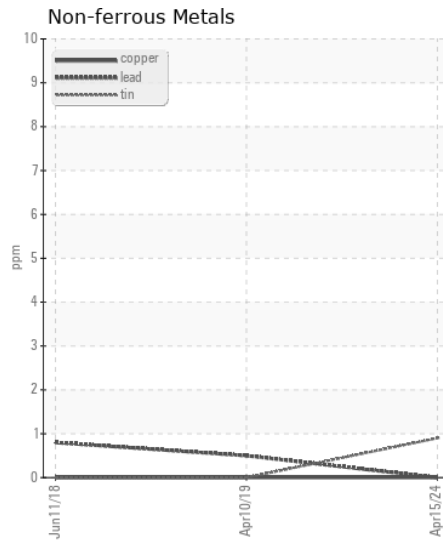
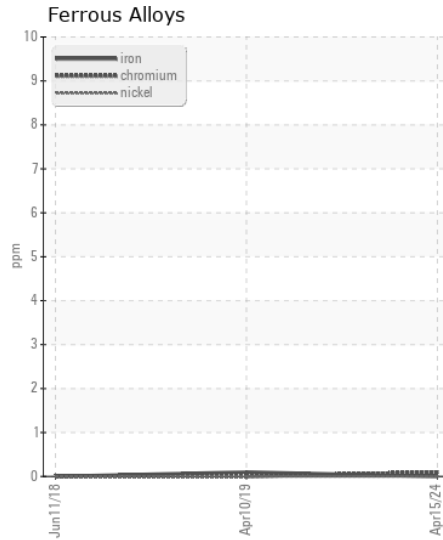
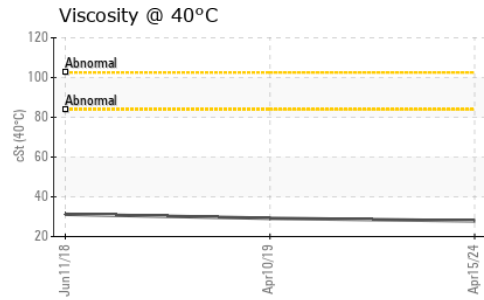
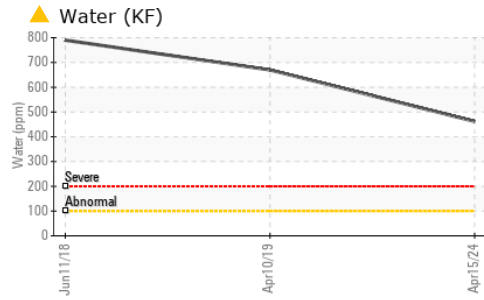
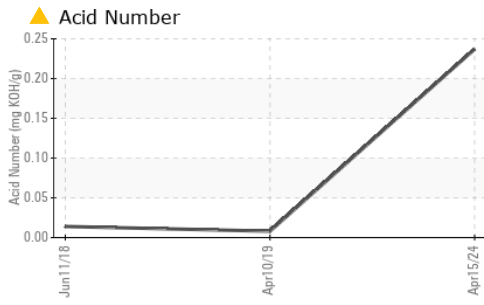
There is a trace of moisture present in the oil.

Silicon	ppm	ASTM D5185m	>15	<1	2	5
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water	%	ASTM D6304	>0.01	▲ 0.046	▲ 0.067	▲ 0.079
ppm Water	ppm	ASTM D6304	>100	▲ 462	▲ 670	▲ 790
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG	NEG

FLUID CONDITION

The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		0	<1	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		<1	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		412	<1	<1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		0	0	0
Acid Number (AN)	mg KOH/g	ASTM D974		▲ 0.237	0.008	0.014
Visc @ 40°C	cSt	ASTM D445		27.9	29.2	31.22



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0730385
Lab Number : 06157744
Unique Number : 10993167
Test Package : IND 2

Received : 23 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

NORTH AMERICAN MECHANICAL
 4401 STATE RD 19
 WINDSOR, WI
 US 53598
 Contact: STACEY QUAM
 squam@naminc.com
 T: (608)240-8906
 F: (608)240-8965

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)