

OIL ANALYSIS REPORT

Sample Rating Trend

limit/base

DEGRADATION

history2



Area [818042] TRANE U14L00712(2) Component Chiller

SAMPLE INFORMATION method

history1

current

TRANE 0048 (--- GAL)

DIAGNOSIS

Recommendation

Resample in 3 months to monitor this situation.

Fluid

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is above the recommended limit.

Sample Number		Client Info		GTT0002137	GTT79548	GTT79549
Sample Date		Client Info		27 Feb 2024	14 Feb 2023	14 Oct 2021
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>8	1	<1	<1
Chromium	ppm	ASTM D5185(m)	>2	0	<1	<1
Nickel	ppm	ASTM D5185(m)		<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>3	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>2	0	<1	<1
Copper	ppm	ASTM D5185(m)	>8	3	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 4	history1	history2
	ppm ppm					
Boron		ASTM D5185(m)	1	4		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	1 0	4 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0	4 0 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0	4 0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0	4 0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 0	4 0 0 0 <1 0	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 0 5	4 0 0 <1 0 0	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 0 5 0	4 0 0 <1 0 0 35	 6	 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 0 5 0	4 0 0 <1 0 0 35 0	 6 	 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 5 0 10	4 0 0 <1 0 0 35 0 <1	 6 	 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 0 5 0 10 10 Iimit/base	4 0 0 35 0 <1	 6 6 history1	 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	1 0 0 0 0 0 5 0 10 10 Iimit/base	4 0 0 35 0 <1	 6 history1	 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 5 0 10 10 limit/base >15	4 0 0 35 0 <1	 6 6 history1	 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1 0 0 0 0 5 0 10 10 10 10 2 15 20	4 0 0 (-1 0 0 35 0 <1 (-1 13 1 1 <1	 6 6 history1 history1	 4 history2



OIL ANALYSIS REPORT

GRAPHS

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



Sample No. : GTT0002137 Received : 08 Mar 2024 1375 Fran-Carrell, bureau 16 Quebec Quebec, QC Lab Number : 02620997 Tested : 11 Mar 2024 Unique Number : 5746116 Diagnosed : 11 Mar 2024 - Bill Quesnel CA G1N 2E7 Test Package : IND 2 (Additional Tests: KV40) Contact: Service Manager To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26. invoices@ainsworth.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.

Contact/Location: Service Manager - GTT0000601

T:

F:

Ainsworth Inc.