

## **OIL ANALYSIS REPORT**

Sample Rating Trend





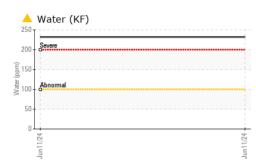
## Machine Id **TRANE U18H01870 CIRC 1**

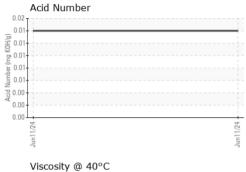
Component Refrigeration Compressor Fluid {not provided} (--- GAL)

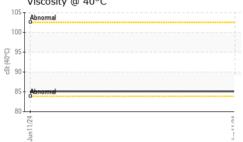
DIAGNOSIS	SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
A Recommendation	Sample Number		Client Info		WC0812206		
No corrective action is recommended at this time.	Sample Date		Client Info		11 Jun 2024		
We recommend an early resample to monitor this	Machine Age	hrs	Client Info		0		
condition.	Oil Age	hrs	Client Info		0		
Wear	Oil Changed		Client Info		N/A		
All component wear rates are normal.	Sample Status				MARGINAL		
Contamination There is a trace of moisture present in the oil.	WEAR METALS		method	limit/base	current	history1	history2
Fluid Condition	Iron	ppm	ASTM D5185m	>8	1		
The AN level is acceptable for this fluid. The	Chromium	ppm	ASTM D5185m	>2	0		
condition of the oil is suitable for further service.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>3	0		
	Lead	ppm	ASTM D5185m	>2	0		
	Copper	ppm	ASTM D5185m	>8	0		
	Tin	ppm	ASTM D5185m	>4	0		
	Vanadium	ppm	ASTM D5185m		0		
	Cadmium	ppm	ASTM D5185m		0		
	ADDITIVES		method	limit/base	current	history1	history2
	ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
		ppm ppm		limit/base			history2 
	Boron		ASTM D5185m	limit/base	0		
	Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0		
	Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0		
	Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0 <1		
	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1		
	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1 0	   	  
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1 0 1	   	   
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1 0 1 0 0	    	
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1 0 1 0 0	     	
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 <1 0 1 0 0 0 0 0 0	     history1	     history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base	0 0 2 3 3 4 1 0 1 0 0 0 0 2	     history1	     history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	limit/base >15 >20	0 0 2 3 1 0 1 0 0 0 0 2 2 2 3	     history1	     history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >15 >20 >0.01	0 0 2 3 1 0 1 0 0 0 0 2 2 2 3 1 0	history1	history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >15 >20 >0.01	0 0 0 <1 <1 0 1 0 0 0 0 0 0 0 0 0 0 0 0	history1	history2



## **OIL ANALYSIS REPORT**







		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate		*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		
Emulsified Water	scalar	*Visual	>0.01	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		85.1		
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
Ferrous Alloys						
2			24			
Non forrous Mot	ala		Jun11/24			
Non-ferrous Met	als		011 mul			
Non-ferrous Met	als		2) ( Lund			
Non-ferrous Met	als		Jun11/24			
Non-ferrous Met			Jun 11/24	Acid Number		
Non-ferrous Met			Jun 11/24	Acid Number		
Non-ferrous Met			Jun 11/24	Acid Number		
Non-ferrous Met			Jun 11/24	Acid Number		
Non-ferrous Met			Jun 11/24	Acid Number		
Non-ferrous Met			ber (mg K0H(g) 10.0 001/24	Acid Number		
Non-ferrous Met			Jun 11/24	Acid Number		
	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPEF Visc @ 40°C SAMPLE IMAGI Color Bottom GRAPHS Ferrous Alloys	Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar FLUID PROPERTIES Visc @ 40°C cSt SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	Silt scalar *Visual Debris scalar *Visual Sand/Dirt scalar *Visual Appearance scalar *Visual Odor scalar *Visual Emulsified Water scalar *Visual Emulsified Water scalar *Visual Free Water scalar *Visual FLUID PROPERTIES method Visc @ 40°C cSt ASTM D445 SAMPLE IMAGES method Color Bottom GRAPHS Ferrous Alloys 10 10 10 10 10 10 10 10 10 10	Silt scalar *Visual NONE   Debris scalar *Visual NONE   Sand/Dirt scalar *Visual NONE   Appearance scalar *Visual NORML   Odor scalar *Visual NORML   Odor scalar *Visual NORML   Odor scalar *Visual NORML   Emulsified Water scalar *Visual NORML   Emulsified Water scalar *Visual >0.01   Free Water scalar *Visual >0.01   Free Water scalar *Visual >0.01   Free Water scalar *Visual >0.01   Full D PROPERTIES method limit/base   Visc @ 40°C cSt ASTM D445   SAMPLE IMAGES method limit/base   Color Color ferrous Alloys	Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NONE NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.01 NEG Free Water scalar *Visual >0.01 NEG Free Water scalar *Visual NORML NEG FLUID PROPERTIES method limit/base current Visc @ 40°C cSt ASTM D445 85.1 SAMPLE IMAGES method limit/base current Color Color	Silt       scalar       *Visual       NONE       NONE          Debris       scalar       *Visual       NONE       NONE          Sand/Dirt       scalar       *Visual       NONE       NONE          Appearance       scalar       *Visual       NORML       NORML          Appearance       scalar       *Visual       NORML       NORML          Odor       scalar       *Visual       NORML       NORML          Emulsified Water       scalar       *Visual       >0.01       NEG          Free Water       scalar       *Visual       >0.01       NEG          FLUID PROPERTIES       method       limit/base       current       history1         Visc @ 40°C       cSt       ASTM D445       85.1          SAMPLE IMAGES       method       limit/base       current       history1         Color

To discuss this sample report, contact Customer \* - 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)

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