

OIL ANALYSIS REPORT

Area **NORTH** NORTH HS-1 (S/N AB10798)

Component Refrigeration Compressor

REFRIG COMP OIL ISO 68 (174 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



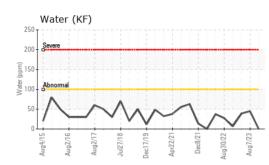


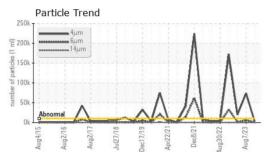
Sample Rating Trend

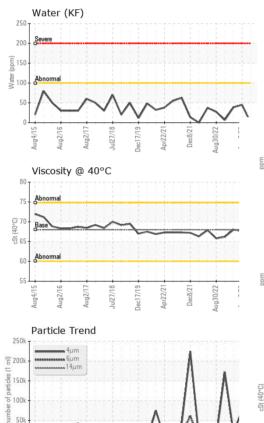
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		USP0003456	USP248332	USP244222	
Sample Date		Client Info		13 Nov 2023	07 Aug 2023	09 May 2023	
Machine Age	hrs	Client Info		0	0	0	
Oil Age	hrs	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	ABNORMAL	ATTENTION	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>8	3	28	10	
Chromium	ppm	ASTM D5185m	>2	0	0	0	
Nickel	ppm	ASTM D5185m		0	0	0	
Titanium	ppm	ASTM D5185m		0	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	0	
Aluminum	ppm	ASTM D5185m	>3	0	<1	0	
Lead	ppm	ASTM D5185m	>2	0	0	0	
Copper	ppm	ASTM D5185m		0	<1	0	
Tin	ppm	ASTM D5185m	>4	0	0	0	
Vanadium	ppm	ASTM D5185m		0	<1	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	5	0	0	0	
Barium	ppm	ASTM D5185m	5	0	0	0	
Molybdenum	ppm	ASTM D5185m	5	0	0	0	
Manganese	ppm	ASTM D5185m		0	<1	<1	
Magnesium	ppm	ASTM D5185m	5	0	1	1	
Calcium	ppm	ASTM D5185m	12	0	0	0	
Phosphorus	ppm	ASTM D5185m	12	<1	<1	1	
Zinc	ppm	ASTM D5185m	12	0	0	0	
Sulfur	ppm	ASTM D5185m	1000	0	0	15	
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	0	<1	<1	
Sodium	ppm	ASTM D5185m		<1	<1	2	
Potassium	ppm	ASTM D5185m	>20	0	0	1	
Water	%	ASTM D6304	>0.01	0.001	0.004	0.003	
ppm Water	ppm	ASTM D6304	>100	0.00	44.6	38.7	
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2	
Particles >4µm		ASTM D7647	>10000	2766	▲ 73949	1 9749	
Particles >6µm		ASTM D7647	>2500	735	5 818	1524	
Particles >14µm		ASTM D7647	>320	49	18	16	
Particles >21µm		ASTM D7647	>80	13	2	4	
Particles >38µm		ASTM D7647	>20	1	0	0	
Particles >71µm		ASTM D7647	>4	0	0	0	
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/13	▲ 23/20/11	2 1/18/11	
FLUID DEGRADATION method limit/base current history1 history2							
Acid Number (AN)	mg KOH/g	ASTM D974	0.10	0.014	0.014	0.014	



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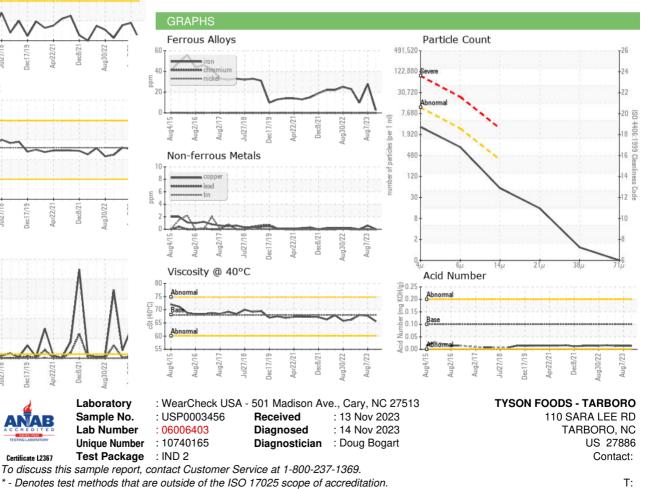






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VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	65.6	67.7	68.0
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						



* - 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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