PROBLEM SUMMARY

Sample Rating Trend ISO

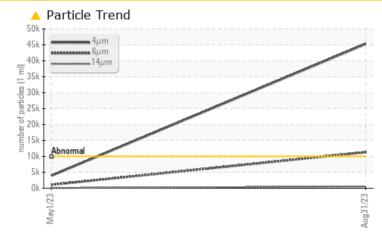
Component Refrigeration Compressor Fluid FES 4 (--- GAL)

SC-08 (S/N V2696)

IEA

Area [3160795]

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

THODELINATIC TEST III	-30113				
Sample Status			ABNORMAL	NORMAL	
Particles >4µm	ASTM D7647	>10000	🔺 45257	3914	
Particles >6µm	ASTM D7647	>2500	🔺 11315	1090	
Particles >14µm	ASTM D7647	>320	<u> </u>	77	
Particles >21µm	ASTM D7647	>80	A 105	20	
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<u> </u>	19/17/13	

Customer Id: USCMCD Sample No.: USP244465 Lab Number: 05979807 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED A	CTIONS			
Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

01 May 2023 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Area [3160795] Machine Id SC-08 (S/N V2696) Component

Refrigeration Compressor Fluid FES 4 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

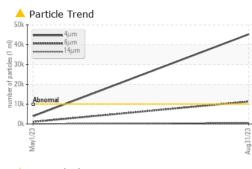
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info USP244465 USP24465 USP24466 Sample Date hrs Client Info 31 Aug 2023 01 May 2023 Oil Age hrs Client Info 6603 5331 Oil Changed Client Info N/A N/A Sample Status Client Info N/A N/A WEAR METALS method limit/base current history1 Nickel ppm ASTM D5185m >8 7 16 Nickel ppm ASTM D5185m >2 0 0 Auminum ppm ASTM D5185m >2 0 0 Auminum ppm ASTM D5185m >2 <1 0 Vanadium ppm ASTM D5185m >4 0 0 Auminum ppm ASTM D5185m 0 0 Vanadium				May2023	Aug2023		
Sample Data Client Info 31 Aug 2023 01 May 2023 Machine Age hrs Client Info 6603 5331 Oil Age hrs Client Info 6603 5331 Sample Status Client Info N/A N/A WEAR METALS method limil/base current history1 history1 Nickel ppm ASTM D5185m >8 7 16 Nickel ppm ASTM D5185m >2 0 0 Silver ppm ASTM D5185m >2 0 0 Copper ppm ASTM D5185m >2 <1 0 Vanadium ppm ASTM D5185m >2 <1 0 Adminium ppm ASTM D5185m >2 <1 0 Kindeita ppm ASTM D5185m >2 <1 0	SAMPLE INFORM	JATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 6603 5331 Oil Age hrs Client Info N/A N/A N/A Sample Status Imit/base current Nistory1 history1 history1 WEAR METALS method limit/base current history1 WEAR METALS method limit/base current history1 Nickel ppm ASTM D5185m >2 0 0 Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >2 0 0 Copper ppm ASTM D5185m >2 <1	Sample Number		Client Info		USP244465	USP244466	
Dil Age hrs Client Info 6603 5331 Sample Status Client Info N/A N/A WEAR METALS method limit/base current history1 history1 Form ppm ASTM D5185m >8 7 16 Chromium ppm ASTM D5185m >2 0 0 Nickel ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >2 <1	Sample Date		Client Info		31 Aug 2023	01 May 2023	
Ol Changed Client Info N/A N/A N/A Sample Status method imil/base current history1 history1 WEAR METALS method imil/base current history1 history1 Nickel ppm ASTM D5185m >2 0 0 Nickel ppm ASTM D5185m >2 0 0 Nickel ppm ASTM D5185m >2 0 0 Silver ppm ASTM D5185m >2 0 0 Copper ppm ASTM D5185m >2 <1	Machine Age	hrs	Client Info		6603	5331	
Sample Status Image ABNORMAL NORMAL WEAR METALS method limit/base current history1 histor Iron ppm ASTM D5185m >8 7 16 Nickel ppm ASTM D5185m <1	Oil Age	hrs	Client Info		6603	5331	
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Iron ppm ASTM D5185m >8 7 16	Sample Status				ABNORMAL	NORMAL	
Ppm ASTM D5185m >2 0 0	WEAR METALS		method	limit/base	current	history1	history2
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Titanium ppm ASTM D5185m 0 0	Chromium	ppm	ASTM D5185m	>2	0	0	
Silver ppm ASTM D5185m >2 0 0 Aluminum ppm ASTM D5185m >3 0 0 Lead ppm ASTM D5185m >2 <1	Nickel	ppm	ASTM D5185m		<1	0	
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Lead ppm ASTM D5185m >2 <1 0 Copper ppm ASTM D5185m >8 2 <1	Aluminum			>3	-	0	
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Magnesium ppm ASTM D5185m 0 <1 Calcium ppm ASTM D5185m 3 0 Phosphorus ppm ASTM D5185m 0 1 Zinc ppm ASTM D5185m 0 1 Sulfur ppm ASTM D5185m 0 3 CONTAMINANTS method limit/base current history1 histor Solicon ppm ASTM D5185m >15 <1	-				-	-	
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Sulfur ppm ASTM D5185m 0 3 CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 <1		ppm			-		
CONTAMINANTS method limit/base current history1 histor Silicon ppm ASTM D5185m >15 <1	Zinc	ppm	ASTM D5185m		4		
Silicon ppm ASTM D5185m >15 <1 <1 Sodium ppm ASTM D5185m 0 <1	Sulfur	ppm	ASTM D5185m		0	3	
Sodium ppm ASTM D5185m 0 <1 Potassium ppm ASTM D5185m >20 <1	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 Water % ASTM D6304 >0.01 0.001 0.002 opm Water ppm ASTM D6304 >100 10.1 19.5 FLUID CLEANLINESS method limit/base current history1 histor Particles >4µm ASTM D7647 >10000 ▲ 45257 3914 Particles >6µm ASTM D7647 >2500 11315 1090 Particles >6µm ASTM D7647 >320 531 77 Particles >14µm ASTM D7647 >80 105 20 Particles >21µm ASTM D7647 >20 2 0 Particles >71µm ASTM D7647 >20 2 0 Oil Cleanliness ISO 4406 (c) >20/18/15 23/21/16 19/17/13 FLUID DEGRADATION method limit/base current history1 <td>Silicon</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>15</td> <td><1</td> <td><1</td> <td></td>	Silicon	ppm	ASTM D5185m	>15	<1	<1	
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Particles >38μm ASTM D7647 >20 2 0 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 23/21/16 19/17/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >14µm		ASTM D7647	>320	6 531	77	
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Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 23/21/16 19/17/13 FLUID DEGRADATION method limit/base current history1 history1						0	
Oil Cleanliness ISO 4406 (c) >20/18/15 23/21/16 19/17/13 FLUID DEGRADATION method limit/base current history1 history1				>4	0	0	
· · · · · · · · · · · · · · · · · · ·							
	FLUID DEGRADA		method	limit/base	current	history1	history2
	AGU NUMBER (AN)	iiiy N∪⊓/ÿ	ASTIVI D9/4		0.013	0.010	

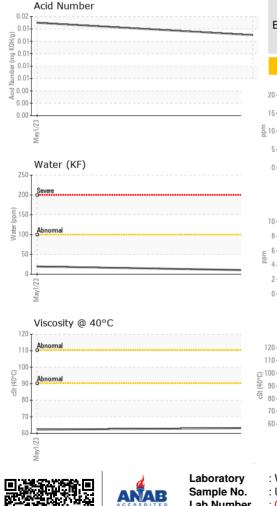
Contact/Location: Service Manager - USCMCD



OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		63.2	62.2	
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
GRAPHS						
Ferrous Alloys				Particle Count	t	-26
iron			491,520		t	²⁶
iron					t	26 -24
iron nickel			491,520		t	
iron nickel			491,520 122,880 30,720		t	-24 -22
iron chramjum nickel			491,520 122,880 30,720 7,680	Severe		-24 -22
iron ehramium nickel			491,520 122,880 30,720 7,680	Severe		-24 -22
iron chramium nickel			491,520 122,880 30,720 7,680	Severe		-24 -22
CITING COLORED	ls		491,520 122,880 30,720 7,680	Severe Abnormal		-24 -22
EZUNEW Non-ferrous Metal	ls		491,520 122,880 30,720 7,680	Severe Abnormal		-24 -22 -20 -18 -16 -16 -16 -14 -14
CITING COLORED	ls		491,520 122,880 30,720 (Turner 1,920 (Structurer 1,920 (Structurer 1,920) (Structurer 1,9	Severe		-24 -22
Non-ferrous Meta	ls		491,520 122,880 30,720 7,680 E2/(Enry 480 50,520,520 480 1,920 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Severe		-24 -22 -20 -18 -16 -16 -14 -14 -12 -12
Non-ferrous Metal	ls		491,520 122,880 30,720 7,680 E27/ECDry 1,320 480 480 1,920 480 30 30 8 8 8 8	Severe		-24 -22 -20 10 -18 10 -14 10 -14 10 -14
COLORED	ls		491,520 122,880 30,720 7,680 E27/ECDry 1,320 480 480 1,920 480 30 30 8 8 8 8	Severe Abnormal		-24 -22 -20 -18 -16 -16 -14 -14 -12 -12
iron chramium nickel EZUVeW Non-ferrous Metal	ls		491,520 122,860 30,720 7,680 E27(Chry H ad sope to 1,920 to 1,920 to 1,920 to 1,920 to 30 30 2 480 to 1,920 to 30 30 2 8 480 to 30,720 to 480 t t 10 to 4 t 10 to 4 t 10 to 4 t 10 t 10 to 4 t 10 t 10 t 10 t 10 t 10 t 10 t 10 t	Abnormal		-24 -22 -20 -18 Tot Job -16 Common -14 Tot Job -12 Common -12 Comm
Viscosity @ 40°C	ls		491,520 122,880 30,720 7,680 CZ/IEChny 627/IEChny 8300 480 120 30 30 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal	14μ 21μ	-24 -22 -20 gc -18 to root -18 to root -10
Non-ferrous Metal	ls		491,520 122,880 30,720 7,680 CZ/IEChny 627/IEChny 8300 480 120 30 30 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		-24 -22 -20 -18 Tot Job -16 Common -14 Tot Job -12 Common -12 Comm
Non-ferrous Metal	ls		491,520 122,880 30,720 7,680 CZ/IEChny 627/IEChny 8300 480 120 30 30 20 480 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Abnormal		-24 -22 -20 -18 Tot Job -16 Common -14 Tot Job -12 Common -12 Comm
Non-ferrous Metal	ls		491,520 122,880 30,720 7,680 CZ/IEChny 627/IEChny 8300 480 120 30 30 20 480 30 20 20 20 480 30 20 20 480 30 20 20 480 30 20 20 480 480 480 480 480 480 480 480 480 48	Abnormal		-24 -22 -20 -18 to to to -16 to -16 to -14 to -12 to -10 -8
Non-ferrous Metal	ls		491,520 122,880 30,720 7,680 E27/ECDry 1,320 480 480 1,920 480 30 30 8 8 8 8	Abnormal		-24 -22 -20 -18 to to to -16 to -16 to -14 to -12 to -10 -8

Aug31/23 -May1/23 Aug31/23 Mav1/23 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 UNITED STATES COLD STORAGE - USCMED : USP244465 Received : 16 Oct 2023 1275 MEDLINE PLACE Lab Number : 05979807 Diagnosed MCDONOUGH, GA : 17 Oct 2023 : 10697102 Unique Number Diagnostician : Doug Bogart US 30253 Test Package : IND 2 Contact: Service Manager Certificate L2367 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. T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: