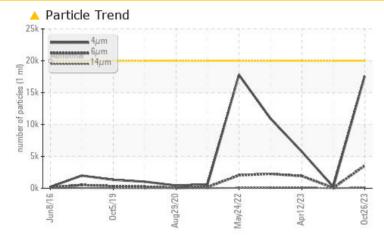


Component Refrigeration Compressor Fluid

### FRICK COMPRESSOR OIL #11 (--- PNT)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS						
Sample Status			ATTENTION	NORMAL	NORMAL	
Particles >6µm	ASTM D7647	>2500	<u> </u>	57	1919	
Oil Cleanliness	ISO 4406 (c)	>21/18/15	<b>A</b> 21/19/14	15/13/11	20/18/14	

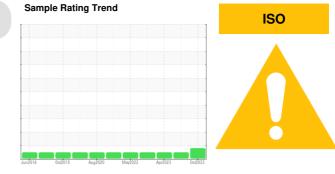
Customer Id: PERPERUSP Sample No.: USP0002913 Lab Number: 05994436 Test Package: IND 2



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 ACTIONS**

There are no recommended actions for this sample.

### HISTORICAL DIAGNOSIS

### 22 Jul 2023 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



#### 12 Apr 2023 Diag: Doug Bogart

06 Sep 2022 Diag: Doug Bogart



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

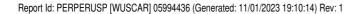


NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.







## **OIL ANALYSIS REPORT**

Sample Number

Sample Date

Machine Age

Oil Changed

Sample Status

Oil Age

Iron

Nickel

Chromium

### ENGINE ROOM FES C04-4 (S/N 10241C84896349) Component

**Refrigeration Compressor** Fluid

FRICK COMPRESSOR OIL #11 (--- PNT)

### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

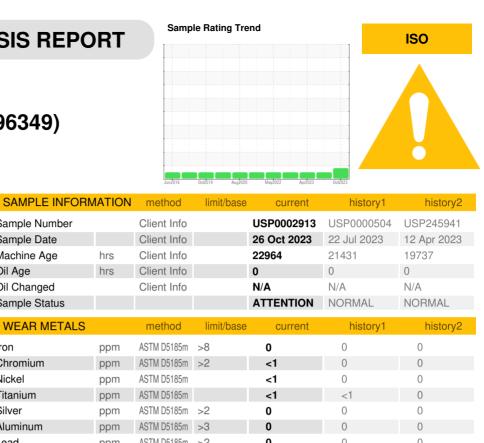
All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

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

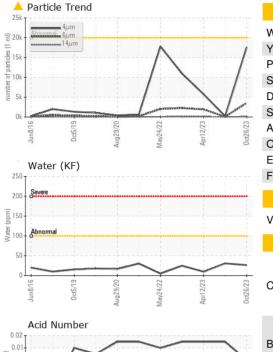


Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m	>8	<1	0	0
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	0	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		0	0	0
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	0	0
Sodium	ppm	ASTM D5185m		1	<1	<1
			00		0	0
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Potassium Water	ppm %	ASTM D5185m ASTM D6304		<1 0.003	0.003	0.001
			>0.01			
Water	% ppm	ASTM D6304	>0.01	0.003	0.003	0.001
Water ppm Water	% ppm	ASTM D6304 ASTM D6304	>0.01 >100	0.003 26.4	0.003 30.8	0.001 9.7
Water ppm Water FLUID CLEANLIN	% ppm	ASTM D6304 ASTM D6304 method	>0.01 >100 limit/base >20000	0.003 26.4 current	0.003 30.8 history1	0.001 9.7 history2
Water ppm Water FLUID CLEANLIN Particles >4µm	% ppm	ASTM D6304 ASTM D6304 method ASTM D7647	>0.01 >100 limit/base >20000	0.003 26.4 current 17592	0.003 30.8 history1 208	0.001 9.7 history2 5743
Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	% ppm	ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>0.01 >100 limit/base >20000 >2500 4 >320	0.003 26.4 current 17592 3544	0.003 30.8 history1 208 57	0.001 9.7 history2 5743 1919
Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	% ppm	ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>0.01 >100 limit/base >20000 >2500 4 >320	0.003 26.4 <u>current</u> 17592 3544 102	0.003 30.8 history1 208 57 12	0.001 9.7 history2 5743 1919 106
Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	% ppm	ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>0.01 >100 limit/base >20000 >2500 >320 >320 >80 >20	0.003 26.4 <u>current</u> 17592 3544 102 21	0.003 30.8 history1 208 57 12 5	0.001 9.7 history2 5743 1919 106 18
Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	% ppm	ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>0.01 >100 limit/base >20000 >2500 >320 >320 >80 >20	0.003 26.4 17592 3544 102 21 0	0.003 30.8 history1 208 57 12 5 0	0.001 9.7 history2 5743 1919 106 18 1
Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	% ppm NESS	ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>0.01 >100 limit/base >20000 >2500 >320 >80 >20 >4	0.003 26.4 17592 3544 102 21 0 0	0.003 30.8 history1 208 57 12 5 0 0 0	0.001 9.7 history2 5743 1919 106 18 1 1 0

Contact/Location: JAMES EAST - PERPERUSP

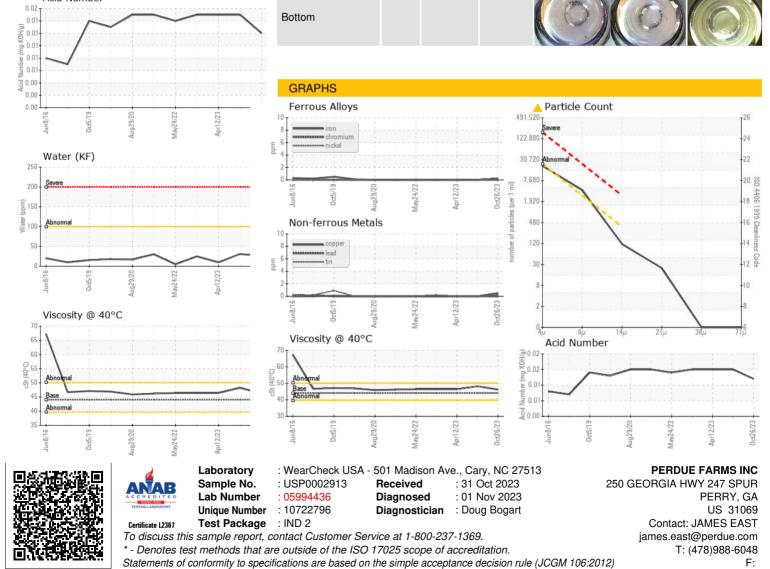


# **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	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	LIGHT	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	44.0	46.2	48.2	46.4
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						
					10-58-23 0- (451	

Bottom



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