

## **OIL ANALYSIS REPORT**

### **ENGINE ROOM** FRICK C09-1 (S/N F0036ZFMNTHAA03) Component

**Refrigeration Compressor** 

FRICK COMPRESSOR OIL #3 (--- PNT)

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

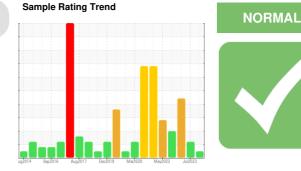
All component wear rates are normal.

#### Contamination

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

### Fluid Condition

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



SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0002911	USP245930	USP245934
Sample Date		Client Info		25 Oct 2023	09 Jul 2023	14 Apr 2023
Machine Age	hrs	Client Info		92147	0	90006
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	4	1	15
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
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	<1
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	<1	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		21	10	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	0	<1
Sodium	ppm	ASTM D5185m		1	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water	%	ASTM D6304	>0.01	0.001	0.003	<b>0</b> .158
ppm Water	ppm	ASTM D6304	>100	13.4	27.8	<b>1</b> 580
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	5877	▲ 143415	
Particles >6µm		ASTM D7647	>2500	1344	<u> </u>	
Particles >14µm		ASTM D7647	>320	63	123	
Particles >21µm		ASTM D7647	>80	14	11	
Particles >38µm		ASTM D7647	>20	0	0	
Particles >71µm		ASTM D7647	>4	0	0	
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/13	<b>4</b> /23/14	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		0.013	0.042	0.062

Contact/Location: JAMES EAST - PERPERUSP



Water (KF)

1600

200

85

8

() 7 40°C

57 T

65

60

250

Ê 200

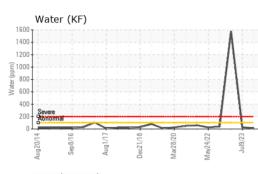
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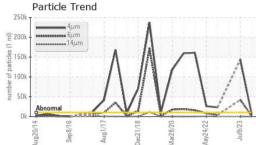
5 100

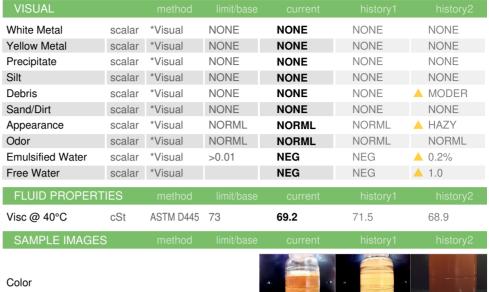
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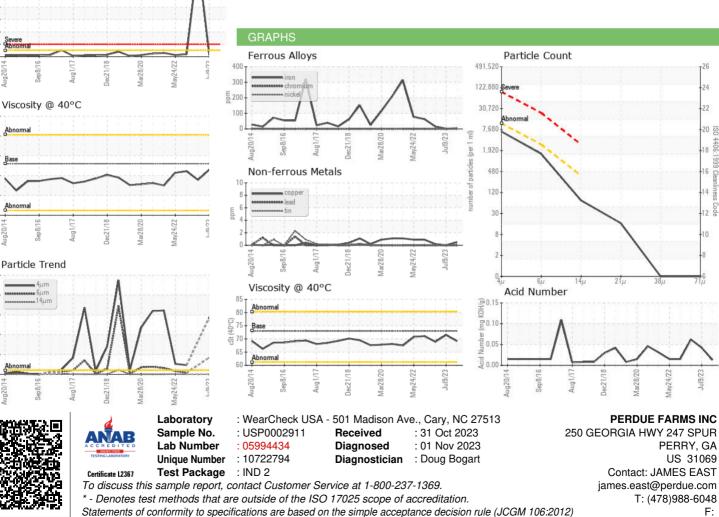








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Contact/Location: JAMES EAST - PERPERUSP