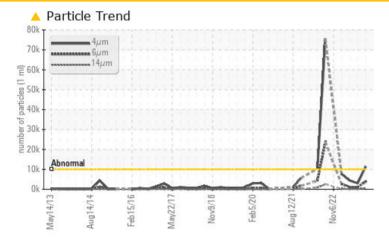


PROBLEM SUMMARY



Compressor Fluid REFRIG COMP OIL ISO 32 (60 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TES	ST RESULTS			
Sample Status		ABNORMAL	NORMAL	NORMAL
Particles >4µm	ASTM D7647 >	10000 🔺 11428	3015	4375
Particles >6µm	ASTM D7647 >2	2500 🔺 3793	1021	1123
Particles >14µm	ASTM D7647 >	320 🔺 415	120	106
Particles >21µm	ASTM D7647 >	80 🔺 121	35	29
Oil Cleanliness	ISO 4406 (c) >2	20/18/15 🔺 21/19/16	19/17/14	19/17/14

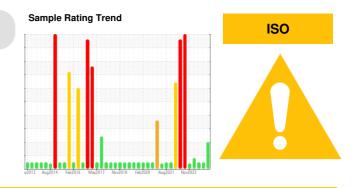
Customer Id: KIMMOBTM6 Sample No.: RP0030565 Lab Number: 06010761 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 <u>don.b505@comcast.net</u>

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



RECOMMENDED AC	TIONS			
Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

NORMAL



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.



view report

24 May 2023 Diag: Don Baldridge

09 Aug 2023 Diag: Doug Bogart

NORMAL



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

21 Feb 2023 Diag: Don Baldridge

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate 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



Compressor Fluid

REFRIG COMP OIL ISO 32 (60 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. 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

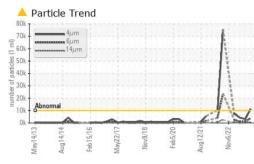
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

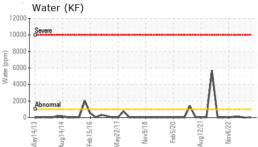


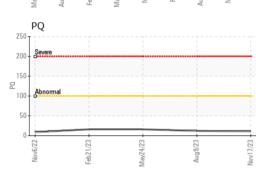
Sample Number Client Info RP0030565 RP003419 RP0023585 Sample Date Client Info 17 Nov 2023 09 Aug 2023 24 May 2023 Machine Age wks Client Info 0 0 0 Oil Age wks Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A WEAR METALS method limit/base current history1 history2 PQ ASTM D5185m >50 0 -1 1 Iron ppm ASTM D5185m 0 0 0 Nickel ppm ASTM D5185m 25 0 0 0 Silver ppm ASTM D5185m >25 0 0 0 Cadmium ppm ASTM D5185m >25 0 0 0 Cadmium ppm ASTM D5185m 5 0 0 <th></th> <th></th> <th>mothered</th> <th>linoit/le erre</th> <th>our mysold</th> <th>bisterret</th> <th>bister 0</th>			mothered	linoit/le erre	our mysold	bisterret	bister 0
Sample Date Client Info 17 Nov 2023 09 Aug 2023 24 May 2023 Machine Age wks Client Info 0 0 0 Oil Age wks Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status O ABNORMAL NORMAL NORMAL NORMAL WEAR METALS method Imitbase current history1 history2 PQ ASTM D5185n >50 0 -1 1 Chromium ppm ASTM D5185n >0 0 0 Nickel ppm ASTM D5185n >25 0 -1 -1 Lead ppm ASTM D5185n >50 0 0 0 Vanadium ppm ASTM D5185n >5 0 0 0 Admium ppm ASTM D5185n 5 0 0 0 Vanadium ppm ASTM D5185n		TATION	method	limit/base		history1	history2
Machine Age wks Client Info 0 0 0 0 Oil Age wks Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Imut/base current history1 history1 history1 PQ ASTM 0585m >50 0 <1	Sample Number						
Oil Age wks Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Imethod limit/base current history1 history2 PQ ASTM D8184 11 12 16 info nethod 0 0 0 0 PQ ASTM D8185 >50 0 -1 1 1 16 info no 0	Sample Date		Client Info		17 Nov 2023	09 Aug 2023	24 May 2023
Oil Changed Sample Status Client Into N/A N/A N/A N/A WEAR METALS method Imit/base current history1 history2 PQ ASTM D5185m >50 O <11 12 16 Iron ppm ASTM D5185m >50 O <11 12 16 Chromium ppm ASTM D5185m >50 O 0 0 0 Nickel ppm ASTM D5185m >50 0 0 0 0 Auminum ppm ASTM D5185m >255 0 0 0 0 Adaminum ppm ASTM D5185m >55 0 0 0 0 Vanadium ppm ASTM D5185m 55 0 0 0 0 Addition ppm ASTM D5185m 5 0 0 0 0 Vanadium ppm ASTM D5185m 5 0 0 0 0	U				-		
Sample Status method Imit/base current history1 NORMAL WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 11 12 16 tron ppm ASTM D5185n >50 0 <1	-	wks			-		
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184 11 12 16 iron ppm ASTM D5185n >50 0 <1	Oil Changed		Client Info				
PQ ASTM D8184 11 12 16 Iron ppm ASTM D8185m >50 0 <1	Sample Status				ABNORMAL	NORMAL	NORMAL
ron ppm ASTM D5185m >50 0 <1 1 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Dromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 225 0 0 0 Auminum ppm ASTM D5185m >25 0 0 0 Lead ppm ASTM D5185m >25 0 0 0 Copper ppm ASTM D5185m >50 0 <11	PQ		ASTM D8184		11	12	16
Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >25 0 <1	Iron	ppm	ASTM D5185m	>50	0	<1	1
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >25 0 <1	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 0 <1	Nickel	ppm	ASTM D5185m		0	0	0
Aluminum ppm ASTM D5185m >25 0 <1	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >25 0 0 0 Copper ppm ASTM D5185m >50 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >50 0 <1 0 Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 <1	Aluminum	ppm	ASTM D5185m	>25	0	<1	<1
Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 <1	Lead	ppm	ASTM D5185m	>25	0	0	0
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 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 Magnessum ppm ASTM D5185m 5 0 0 <11 <11 Magnesium ppm ASTM D5185m 12 78 80 74 Zinc ppm ASTM D5185m 12 78 80 74 Silicon ppm ASTM D5185m 12 78 80 74 Sodium ppm ASTM D5185m 25 <1 <1 2 Sodium ppm ASTM D6185m 20 0 <1 <	Copper	ppm	ASTM D5185m	>50	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 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 1 Phosphorus ppm ASTM D5185m 12 78 80 74 Zinc ppm ASTM D5185m 12 33 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1	Tin	ppm	ASTM D5185m	>15	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 Magnese ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 <1	Vanadium	ppm	ASTM D5185m		0	<1	0
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 5 0 0 0 Magnesium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 -1 Phosphorus ppm ASTM D5185m 12 78 80 74 Zinc ppm ASTM D5185m 12 33 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 0 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 0 0 0 Manganese ppm ASTM D5185m 5 0 0 0 Magnesium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 <11	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 0 0 0 Manganese ppm ASTM D5185m 5 0 0 0 Magnesium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 <1	Boron	ppm	ASTM D5185m	5	0	0	0
Marganese ppm ASTM D5185m 0 <1 <1 Magnesium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 <1	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 5 0 0 0 Calcium ppm ASTM D5185m 12 0 0 <1	Molybdenum	ppm	ASTM D5185m	5	0	0	0
Calcium ppm ASTM D5185m 12 0 <1 Phosphorus ppm ASTM D5185m 12 78 80 74 Zinc ppm ASTM D5185m 12 33 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Manganese	ppm	ASTM D5185m		0	<1	<1
Phosphorus ppm ASTM D5185m 12 78 80 74 Zinc ppm ASTM D5185m 12 33 0 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 <1 2 Sodium ppm ASTM D5185m >20 0 <1 0 1 Potassium ppm ASTM D5185m >20 0 <1 0 0.007 Water % ASTM D6304 >0.1 0.004 0.00 0.007 ppm Water ppm ASTM D6304 >1000 46.7 0.00 71.4 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 11428 3015 4375 Particles >1µm ASTM D7647 >2500 3793 1021 1123 Particles >21µm ASTM D7647	Magnesium	ppm	ASTM D5185m	5	0	0	0
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CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	Phosphorus	ppm	ASTM D5185m	12	78	80	74
Silicon ppm ASTM D5185m >25 <1 <1 2 Sodium ppm ASTM D5185m >20 0 <1 0 1 Potassium ppm ASTM D5185m >20 0 <1 0 1 Potassium ppm ASTM D5185m >20 0 <1 0 1 Water % ASTM D6304 >0.1 0.004 0.00 0.007 ppm Water ppm ASTM D6304 >1000 46.7 0.00 71.4 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 11428 3015 4375 Particles >6µm ASTM D7647 >2500 3793 1021 1123 Particles >1µm ASTM D7647 >320 415 120 106 Particles >21µm ASTM D7647 >20 6 2 2 Particles >38µm ASTM D7647 >20 6 2 2 Particles >71µm ASTM D7647 4<	Zinc	ppm	ASTM D5185m	12	33	0	0
Sodium ppm ASTM D5185m <1	CONTAMINANTS		method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m <1 0 1 Potassium ppm ASTM D5185m >20 0 <1	Silicon	maa	ASTM D5185m	>25	<1	<1	2
Potassium ppm ASTM D5185m >20 0 <1 0 Water % ASTM D6304 >0.1 0.004 0.00 0.007 ppm Water ppm ASTM D6304 >1000 46.7 0.00 71.4 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 ▲ 11428 3015 4375 Particles >6µm ASTM D7647 >2500 ▲ 3793 1021 1123 Particles >14µm ASTM D7647 >320 ▲ 415 120 106 Particles >14µm ASTM D7647 >20 6 2 2 Particles >38µm ASTM D7647 >20 6 2 2 Particles >71µm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1	Sodium		ASTM D5185m		<1	0	1
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Particles >6µm ASTM D7647 >2500 ▲ 3793 1021 1123 Particles >14µm ASTM D7647 >320 ▲ 415 120 106 Particles >21µm ASTM D7647 >80 ▲ 121 35 29 Particles >38µm ASTM D7647 >20 6 2 2 Particles >71µm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >320 ▲ 415 120 106 Particles >21μm ASTM D7647 >80 ▲ 121 35 29 Particles >38μm ASTM D7647 >20 6 2 2 Particles >71μm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 ▲ 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647	>10000	11428	3015	4375
Particles >21μm ASTM D7647 >80 121 35 29 Particles >38μm ASTM D7647 >20 6 2 2 Particles >37μm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>2500	A 3793	1021	1123
Particles >21μm ASTM D7647 >80 121 35 29 Particles >38μm ASTM D7647 >20 6 2 2 Particles >37μm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>320	4 15	120	106
Particles >38μm ASTM D7647 >20 6 2 2 Particles >71μm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>80	<u> </u>		29
Particles >71μm ASTM D7647 >4 1 0 1 Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm					2	
Oil Cleanliness ISO 4406 (c) >20/18/15 21/19/16 19/17/14 19/17/14 FLUID DEGRADATION method limit/base current history1 history2				>4	1	0	1
					A 21/19/16	19/17/14	19/17/14
Acid Number (AN) mg KOH/g ASTM D8045 0.10 0.14 0.16 0.17	FLUID DEGRADA		method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.10	0.14	0.16	0.17



OIL ANALYSIS REPORT







1000

600

4000

200

Mav1

38

36

cSt (40°C)

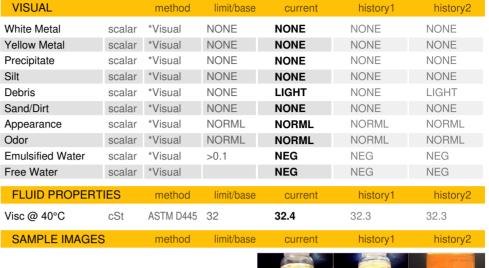
30

28

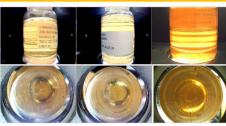
2

law14

Water (ppm)

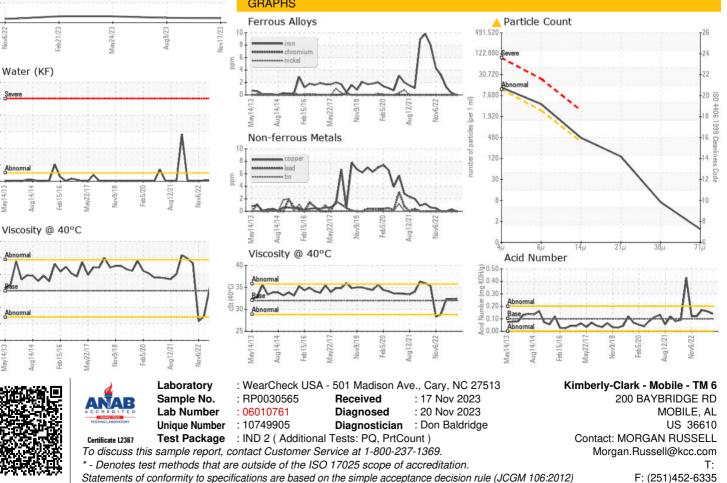


Color



Bottom





Contact/Location: MORGAN RUSSELL - KIMMOBTM6