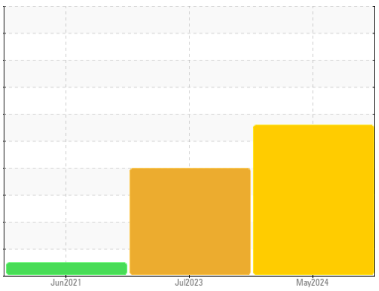
PROBLEM SUMMARY

Sample Rating Trend

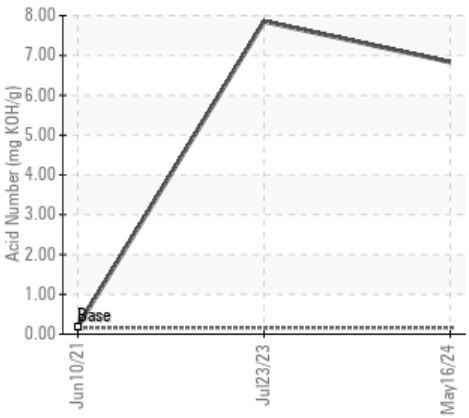


DEGRADATION

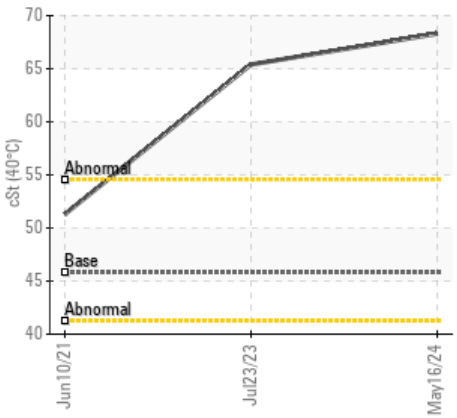
Machine Id
INGERSOLL RAND 2 (100HP) (S/N MOX1002479)
Component
Air Compressor
Fluid
USPI MAX FG AIR 46 (--- GAL)

COMPONENT CONDITION SUMMARY

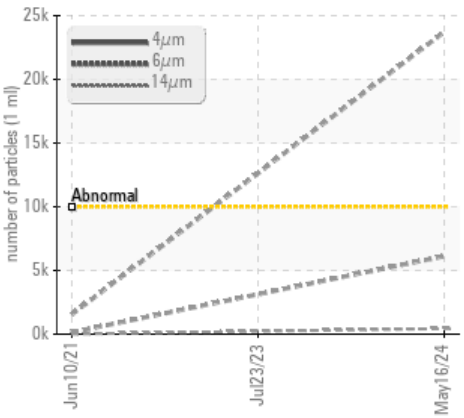
Acid Number



Viscosity @ 40°C



Particle Trend



RECOMMENDATION

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	NORMAL
Particles >4µm		ASTM D7647	>10000	▲ **23720**	---	1547
Particles >6µm		ASTM D7647	>2500	▲ **6122**	---	140
Particles >14µm		ASTM D7647	>320	▲ **435**	---	10
Particles >21µm		ASTM D7647	>80	▲ **118**	---	6
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **22/20/16**	---	18/14/10
Acid Number (AN)	mg KOH/g	ASTM D8045	0.16	▲ **6.834**	▲ 7.852	0.188
Visc @ 40°C	cSt	ASTM D445	45.8	▲ **68.3**	▲ 65.4	51.3

Customer Id: TYSNORTX
Sample No.: USPM36170
Lab Number: 06182867
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Flush System	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

DEGRADATION

23 Jul 2023 Diag: Doug Bogart

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is above the recommended limit. The oil viscosity is higher than normal. Confirmed.

view report

NORMAL

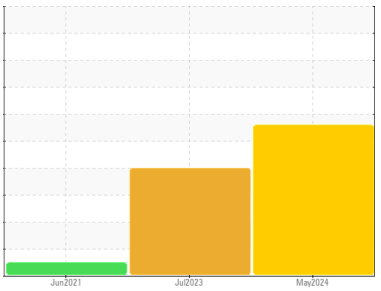
10 Jun 2021 Diag: Doug Bogart

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.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
INGERSOLL RAND 2 (100HP) (S/N MOX1002479)
Component
Air Compressor
Fluid
USPI MAX FG AIR 46 (--- GAL)

DIAGNOSIS

Recommendation
Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

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 above the recommended limit. The oil viscosity is higher than normal. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USPM36170**	USPM27431	USP224228
Sample Date		Client Info		**16 May 2024**	23 Jul 2023	10 Jun 2021
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				**SEVERE**	SEVERE	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**11**	7	<1
Chromium	ppm	ASTM D5185m	>4	**0**	0	0
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>10	**0**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>40	**12**	7	0
Tin	ppm	ASTM D5185m	>5	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

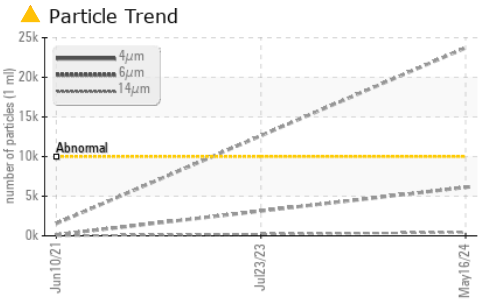
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**<1**	0	4
Barium	ppm	ASTM D5185m	0	**0**	0	714
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m	0	**0**	<1	<1
Calcium	ppm	ASTM D5185m	0	**0**	0	3
Phosphorus	ppm	ASTM D5185m	0	**0**	5	20
Zinc	ppm	ASTM D5185m	0	**7**	12	0
Sulfur	ppm	ASTM D5185m	0	**0**	0	45

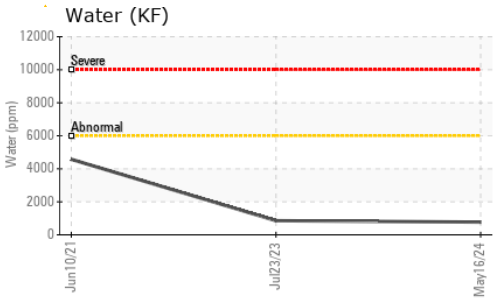
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	<1	<1
Sodium	ppm	ASTM D5185m		**7**	5	23
Potassium	ppm	ASTM D5185m	>20	**<1**	2	1
Water	%	ASTM D6304	>0.6	**0.076**	0.085	0.457
ppm Water	ppm	ASTM D6304	>6000	**769**	855.4	4574.3

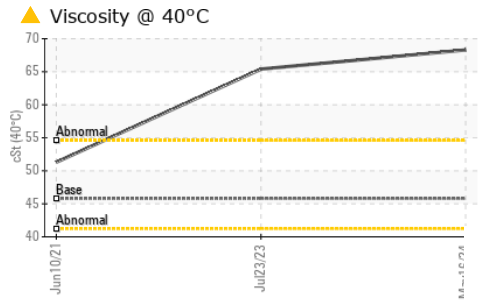
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **23720**	---	1547
Particles >6µm		ASTM D7647	>2500	▲ **6122**	---	140
Particles >14µm		ASTM D7647	>320	▲ **435**	---	10
Particles >21µm		ASTM D7647	>80	▲ **118**	---	6
Particles >38µm		ASTM D7647	>20	**5**	---	0
Particles >71µm		ASTM D7647	>4	**0**	---	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **22/20/16**	---	18/14/10

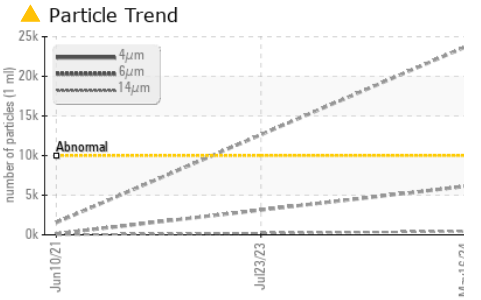
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.16	▲ **6.834**	▲ 7.852	0.188

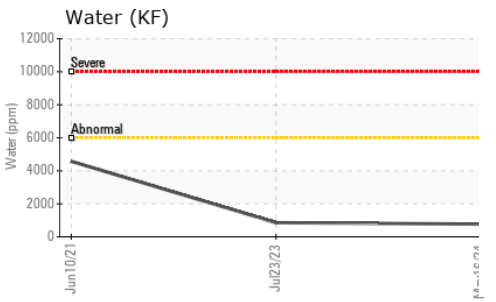
OIL ANALYSIS REPORT





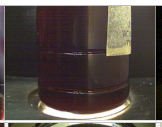
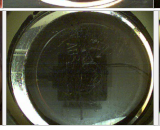
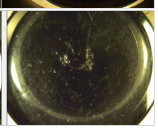




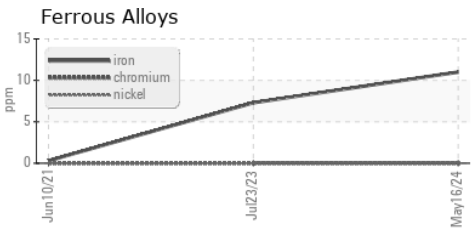


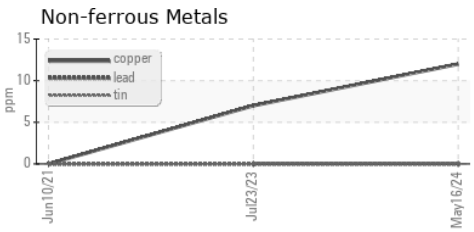
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.6	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

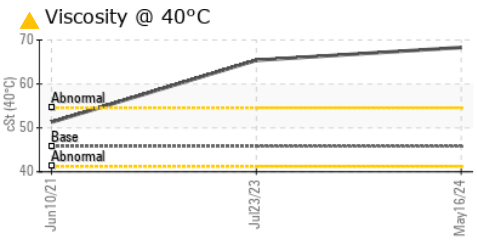
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.8	▲ **68.3**	▲ 65.4	51.3

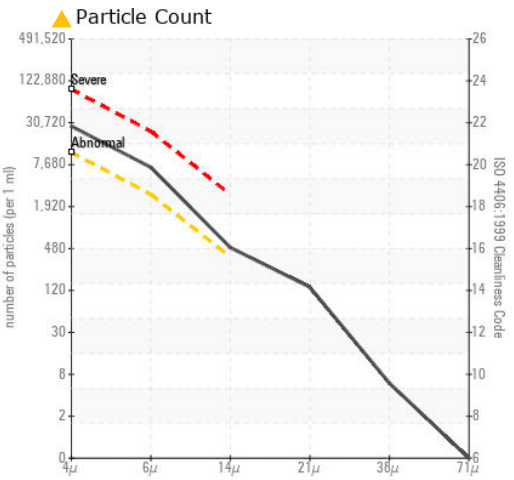
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

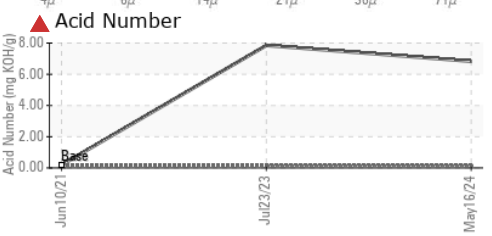
GRAPHS











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36170
Lab Number : 06182867
Unique Number : 11034193
Test Package : IND 2

Received : 17 May 2024
Tested : 21 May 2024
Diagnosed : 21 May 2024 - Jonathan Hester

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

TYSON-NORTH RICHLAND HILLS-USP
6350 BLOWN CT
NORTH RICHLAND HILLS, TX
US 76180
Contact: JOHN MORGAN

T: (817)514-3519
F: