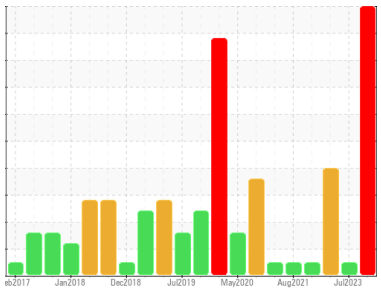
PROBLEM SUMMARY

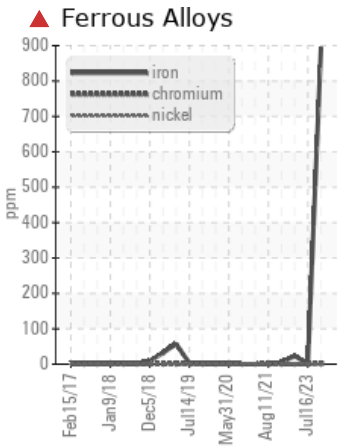
Sample Rating Trend

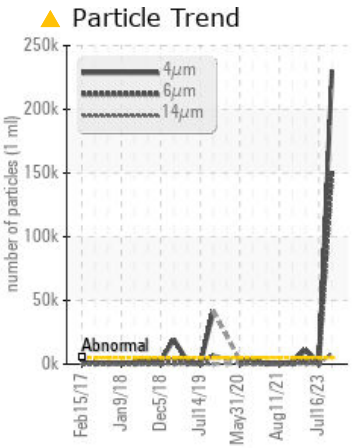


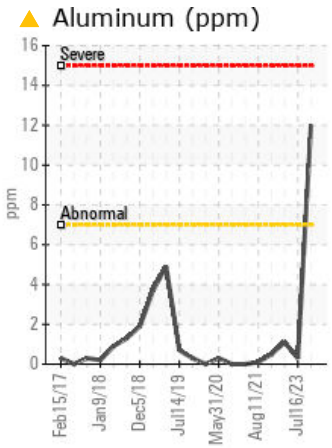
WEAR

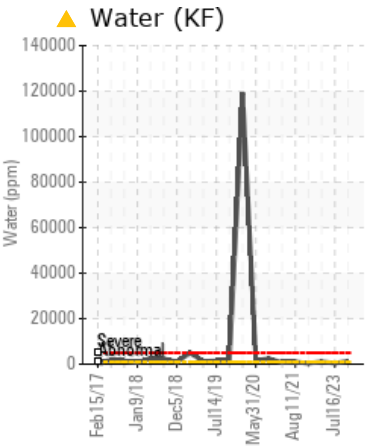
Machine Id
VAC 1178644-4 NORTH (S/N 5588349)
Component
Pump
Fluid
USPI VAC 100 (--- GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>90	▲ **895**	1	23
Aluminum	ppm	ASTM D5185m	>7	▲ **12**	<1	1
Water	%	ASTM D6304	>.1	▲ **0.132**	0.041	▲ 0.109
ppm Water	ppm	ASTM D6304	>1000	▲ **1325**	414.4	▲ 1091.3
Particles >4µm		ASTM D7647	>5000	▲ **230547**	1484	▲ 11068
Particles >6µm		ASTM D7647	>1300	▲ **149839**	459	▲ 2627
Particles >14µm		ASTM D7647	>160	▲ **8642**	23	▲ 238
Particles >21µm		ASTM D7647	>40	▲ **1638**	5	▲ 90
Particles >38µm		ASTM D7647	>10	▲ **95**	0	▲ 12
Particles >71µm		ASTM D7647	>3	▲ **5**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **25/24/20**	18/16/12	▲ 21/19/15

Customer Id: JBSBEA
Sample No.: USPM36822
Lab Number: 06159151
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
dougb@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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

NORMAL

16 Jul 2023 Diag: Doug Bogart
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. An increase in the viscosity is noted. Confirmed. The AN level is acceptable for this fluid.

view report

WATER

17 Nov 2022 Diag: Doug Bogart
We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. There is a trace of moisture present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

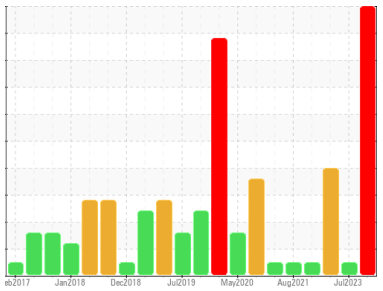
NORMAL

27 Feb 2022 Diag: Doug Bogart
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.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
VAC 1178644-4 NORTH (S/N 5588349)
Component
Pump
Fluid
USPI VAC 100 (--- GAL)

DIAGNOSIS

▲ Recommendation
We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
Gear wear is indicated.

▲ Contamination
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USPM36822**	USPM27381	USPM23646
Sample Date		Client Info		**23 Apr 2024**	16 Jul 2023	17 Nov 2022
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**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	▲ **895**	1	23
Chromium	ppm	ASTM D5185m	>5	**2**	0	0
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m	>3	**0**	<1	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>7	▲ **12**	<1	1
Lead	ppm	ASTM D5185m	>12	**<1**	0	0
Copper	ppm	ASTM D5185m	>30	**<1**	0	<1
Tin	ppm	ASTM D5185m	>9	**<1**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**2**	<1	1
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**2**	<1	0
Magnesium	ppm	ASTM D5185m	0	**1**	0	0
Calcium	ppm	ASTM D5185m	0	**7**	0	0
Phosphorus	ppm	ASTM D5185m	1800	**1243**	1026	950
Zinc	ppm	ASTM D5185m	0	**11**	0	7
Sulfur	ppm	ASTM D5185m	0	**17**	19	184

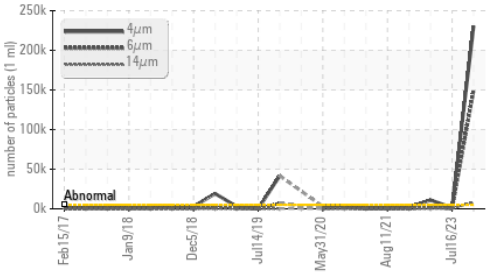
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**14**	8	15
Sodium	ppm	ASTM D5185m		**2**	<1	5
Potassium	ppm	ASTM D5185m	>20	**<1**	1	0
Water	%	ASTM D6304	>.1	▲ **0.132**	0.041	▲ 0.109
ppm Water	ppm	ASTM D6304	>1000	▲ **1325**	414.4	▲ 1091.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **230547**	1484	▲ 11068
Particles >6µm		ASTM D7647	>1300	▲ **149839**	459	▲ 2627
Particles >14µm		ASTM D7647	>160	▲ **8642**	23	▲ 238
Particles >21µm		ASTM D7647	>40	▲ **1638**	5	▲ 90
Particles >38µm		ASTM D7647	>10	▲ **95**	0	▲ 12
Particles >71µm		ASTM D7647	>3	▲ **5**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **25/24/20**	18/16/12	▲ 21/19/15

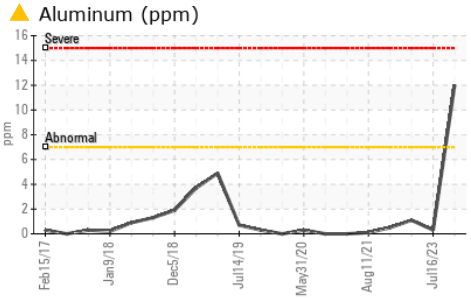
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	**4.39**	0.34	4.33

OIL ANALYSIS REPORT

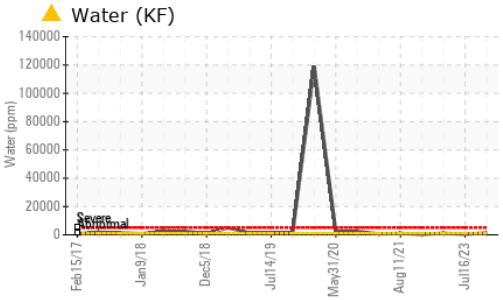
Particle Trend



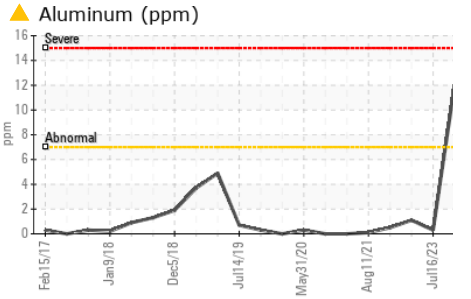
Aluminum (ppm)



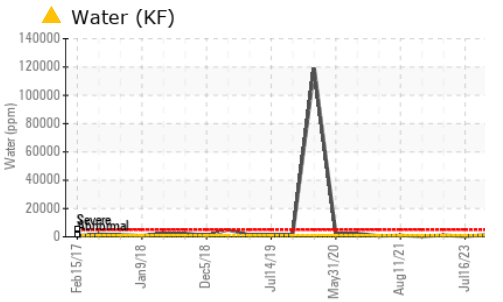
Water (KF)



Aluminum (ppm)

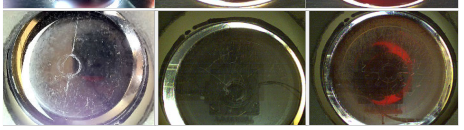


Water (KF)



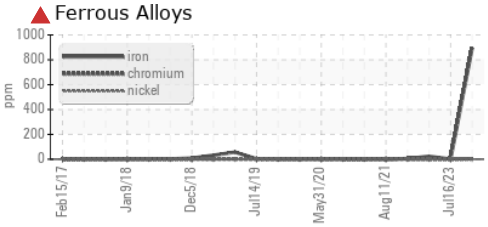
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	91	**100**	124.6	90.7

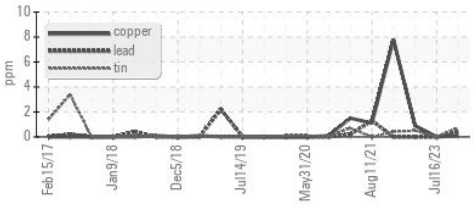
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

GRAPHS

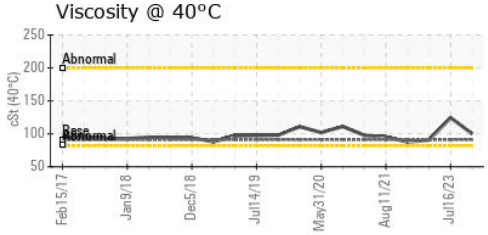
Ferrous Alloys



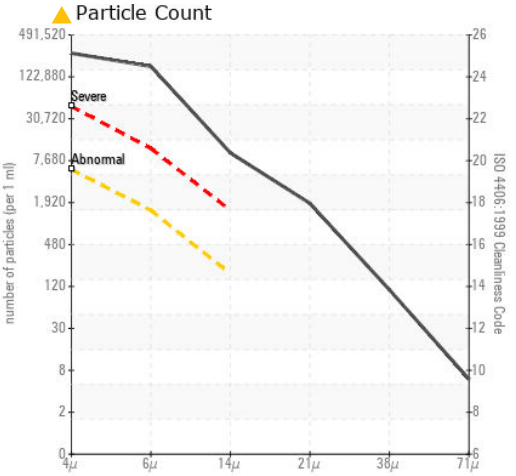
Non-ferrous Metals



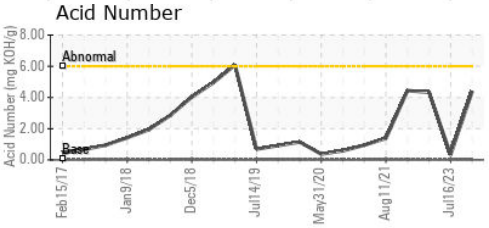
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36822
Lab Number : 06159151
Unique Number : 10994574
Test Package : IND 2

Received : 24 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Doug Bogart

JBS - BEARDSTOWN
8295 ARENZVILLE RD
BEARDSTOWN, IL
US 62618
Contact:
T:
F:

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)