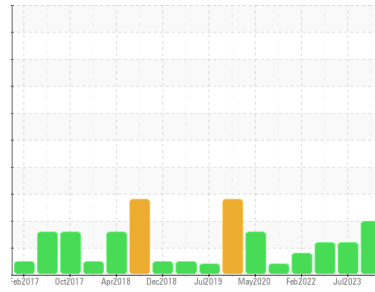




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**VAC 1178606-2 MIDDLE (S/N C7315)**  
 Component  
**Pump**  
 Fluid  
**USPI VAC 100 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. 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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>USPM36823</b>	USPM27376	USPM23641
Sample Date	Client Info		<b>23 Apr 2024</b>	16 Jul 2023	17 Nov 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<b>2</b>	7	3
Chromium	ppm	ASTM D5185m >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >7	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m >12	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >30	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >9	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Phosphorus	ppm	ASTM D5185m 1800	<b>830</b>	1231	1364
Zinc	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Sulfur	ppm	ASTM D5185m 0	<b>23</b>	2	2

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	<b>5</b>	11	15
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	1	0
Water	%	ASTM D6304 >.1	<b>0.044</b>	0.062	0.064
ppm Water	ppm	ASTM D6304 >1000	<b>447</b>	624.2	646.8

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 22622</b>	▲ 68548	▲ 49101
Particles >6µm	ASTM D7647	>1300	<b>▲ 10254</b>	▲ 6182	▲ 5586
Particles >14µm	ASTM D7647	>160	<b>▲ 1139</b>	76	125
Particles >21µm	ASTM D7647	>40	<b>▲ 243</b>	10	24
Particles >38µm	ASTM D7647	>10	<b>6</b>	0	2
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 22/21/17</b>	▲ 23/20/13	▲ 23/20/14

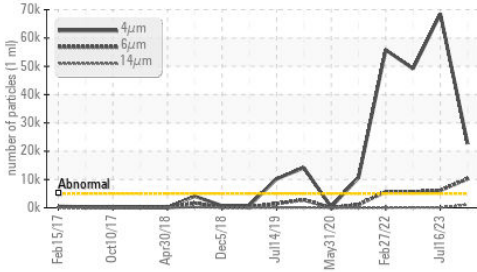
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.12</b>	0.22	0.20

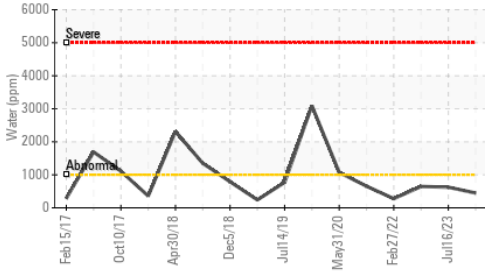


# OIL ANALYSIS REPORT

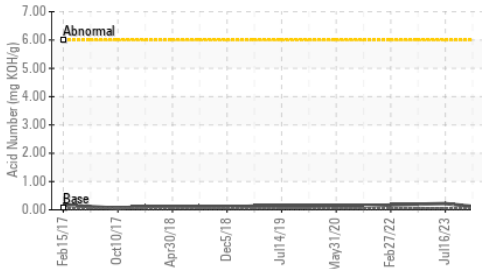
## Particle Trend



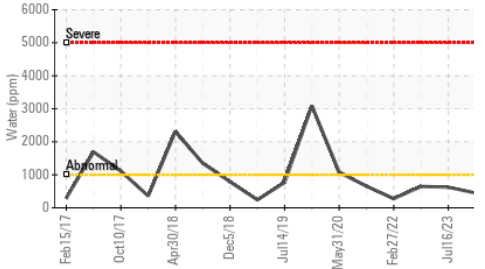
## Water (KF)



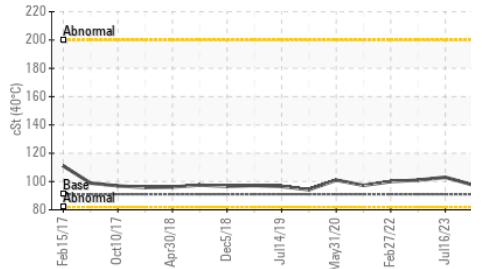
## Acid Number



## Water (KF)



## Viscosity @ 40°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	97.6	103	101

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

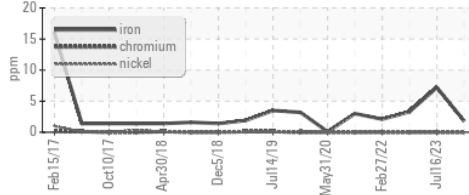


Bottom

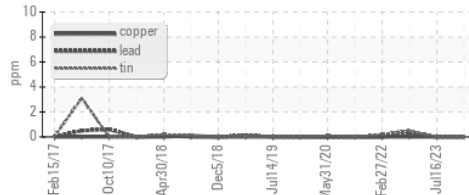


## GRAPHS

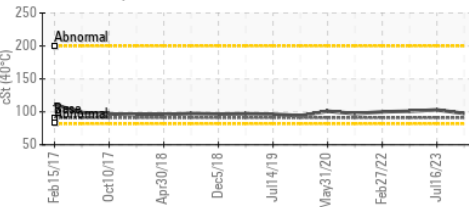
### Ferrous Alloys



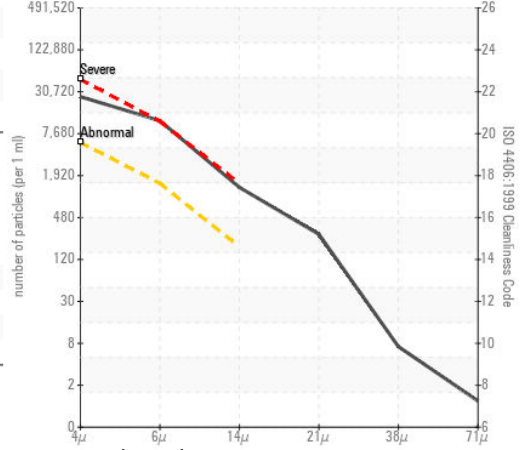
### Non-ferrous Metals



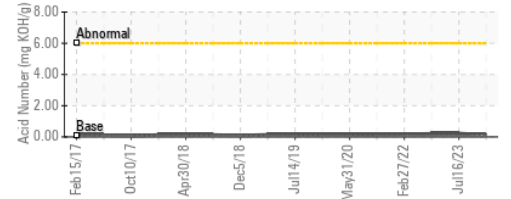
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : USPM36823

Lab Number : 06159153

Unique Number : 10994576

Test Package : IND 2

Received : 24 Apr 2024

Tested : 25 Apr 2024

Diagnosed : 26 Apr 2024 - Jonathan Hester

JBS - BEARDSTOWN

8295 ARENZVILLE RD

BEARDSTOWN, IL

US 62618

Contact:

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)

T:

F: