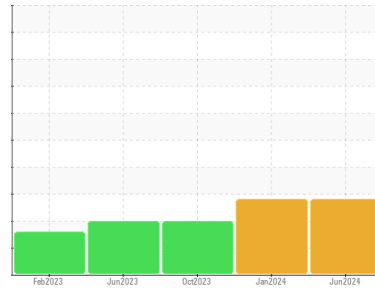




# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id  
**BUSCH LINE 6 (S/N U210200197)**  
 Component  
**Vacuum Pump**  
 Fluid  
**USPI VAC 100 (--- QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal.

### 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>USPM36334</b>	USPM30735	USPM29951
Sample Date	Client Info	<b>02 Jun 2024</b>	23 Jan 2024	09 Oct 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ATTENTION

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	<b>4</b>	4	<1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	4	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	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	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Phosphorus	ppm	ASTM D5185m 1800	<b>780</b>	852	155
Zinc	ppm	ASTM D5185m 0	<b>0</b>	5	6
Sulfur	ppm	ASTM D5185m 0	<b>10</b>	0	68

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<b>▲ 55</b>	▲ 25	▲ 16
Sodium	ppm	ASTM D5185m	<b>1</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Water	%	ASTM D6304 >.1	<b>0.044</b>	0.025	0.004
ppm Water	ppm	ASTM D6304 >1000	<b>449</b>	252	47.7

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 18089</b>	● 8634	451
Particles >6µm	ASTM D7647 >1300	<b>▲ 3877</b>	● 1514	94
Particles >14µm	ASTM D7647 >160	<b>139</b>	42	9
Particles >21µm	ASTM D7647 >40	<b>26</b>	8	4
Particles >38µm	ASTM D7647 >10	<b>2</b>	0	1
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 21/19/14</b>	● 20/18/13	16/14/10

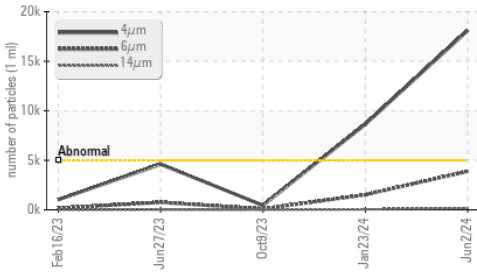
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.14</b>	0.12	0.11

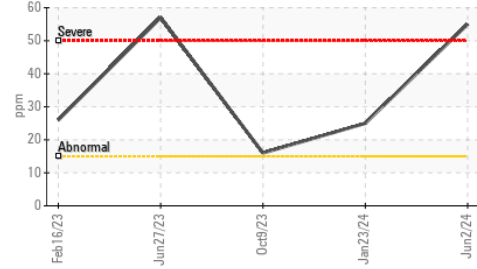


# OIL ANALYSIS REPORT

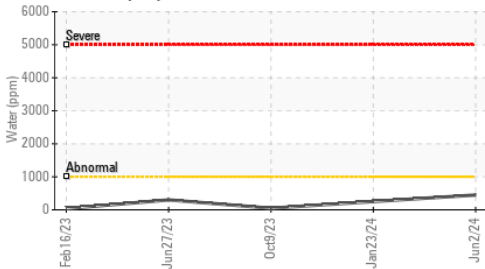
### Particle Trend



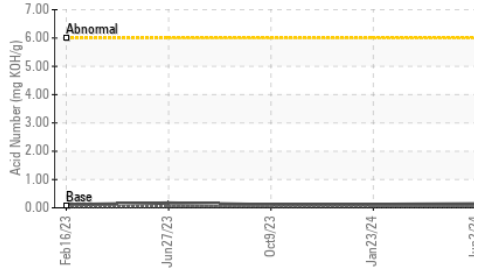
### Silicon (ppm)



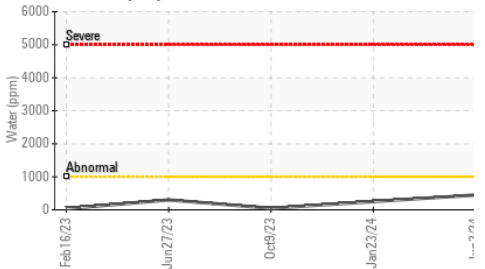
### Water (KF)



### Acid Number



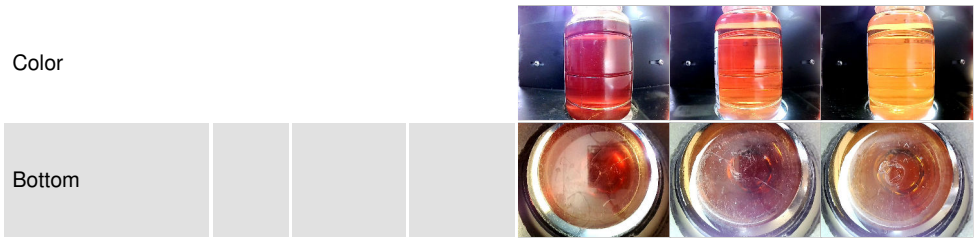
### Water (KF)



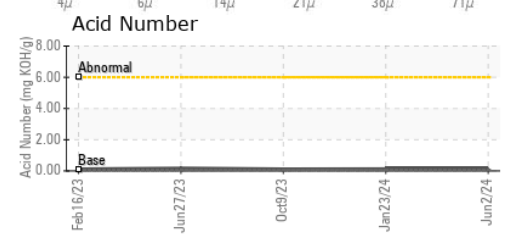
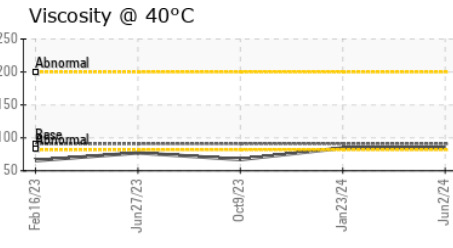
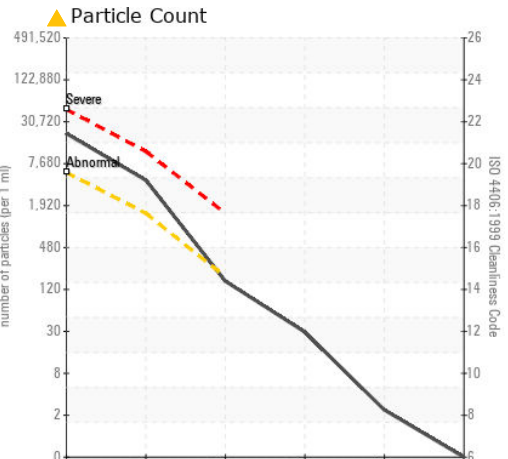
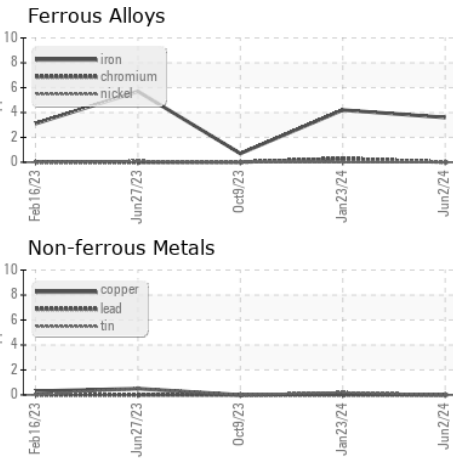
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	85.2	84.8	67.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USPM36334  
**Lab Number** : 06197676  
**Unique Number** : 11059799  
**Test Package** : IND 2

**ARMOUR-ECKRICH MEATS LLC - SMITHFIELD**  
 JUNCTION CITY, KS  
 US 66441  
 Contact: SERVICE MANAGER

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)