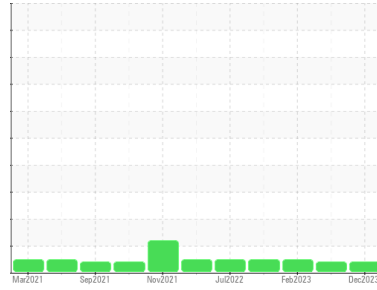




# PROBLEM SUMMARY

Sample Rating Trend



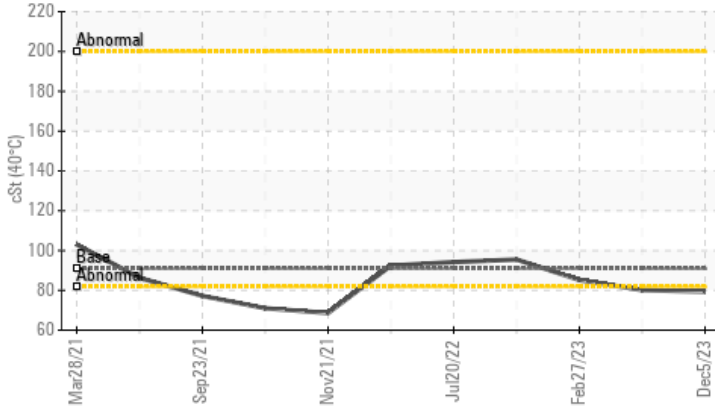
## VISCOSITY



Machine Id  
**B3 SARAN LINE SPARE (S/N U152000160)**  
 Component  
**Pump**  
 Fluid  
**USPI VAC 100 (--- GAL)**

### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



### RECOMMENDATION

Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	NORMAL
Visc @ 40°C	cSt	ASTM D445	91	▲ 79.3	▲ 80.11	85.2

Customer Id: KRACOLUSP  
 Sample No.: USPM31997  
 Lab Number: 06026484  
 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](mailto:dougb@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

### 11 Sep 2023 Diag: Doug Bogart

#### VISCOSITY



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. A decrease in the viscosity is noted. Confirmed. The AN level is acceptable for this fluid.

view report



### 27 Feb 2023 Diag: Doug Bogart

#### 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. A decrease in the viscosity is noted. Confirmed. The AN level is acceptable for this fluid.

view report



### 09 Nov 2022 Diag: Doug Bogart

#### 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.

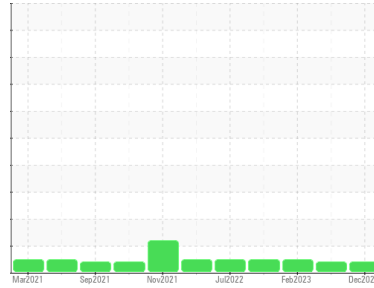
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Machine Id  
**B3 SARAN LINE SPARE (S/N U152000160)**

Component  
**Pump**  
Fluid  
**USPI VAC 100 (--- GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### ▲ Fluid Condition

A decrease in the viscosity is noted. Confirmed. The AN level is acceptable for this fluid.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>USPM31997</b>	USPM29577	USPM26544
Sample Date	Client Info	<b>05 Dec 2023</b>	11 Sep 2023	27 Feb 2023
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	ATTENTION	NORMAL

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	<b>7</b>	8	6
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>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >7	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >12	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >30	<b>1</b>	0	0
Tin	ppm	ASTM D5185m >9	<b>&lt;1</b>	<1	<1
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>	0	3
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	1
Magnesium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Phosphorus	ppm	ASTM D5185m 1800	<b>775</b>	810	778
Zinc	ppm	ASTM D5185m 0	<b>0</b>	0	3
Sulfur	ppm	ASTM D5185m 0	<b>109</b>	149	0

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >60	<b>5</b>	5	5
Sodium	ppm	ASTM D5185m	<b>4</b>	3	1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	1
Water	%	ASTM D6304 >.1	<b>0.025</b>	0.046	0.029
ppm Water	ppm	ASTM D6304 >1000	<b>255</b>	466.7	293.9

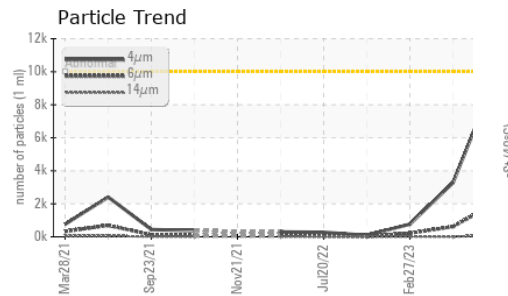
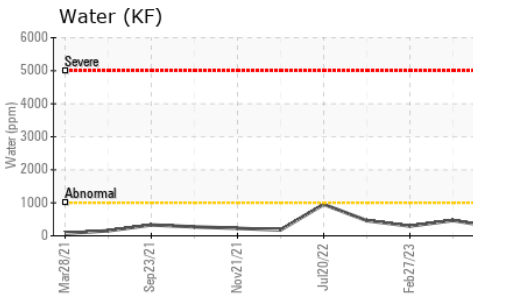
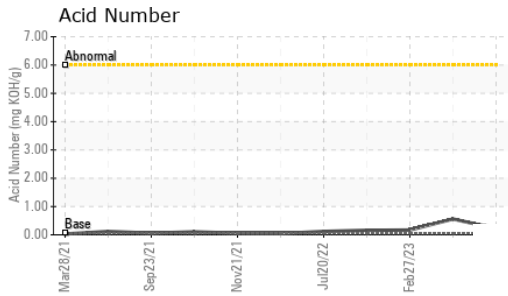
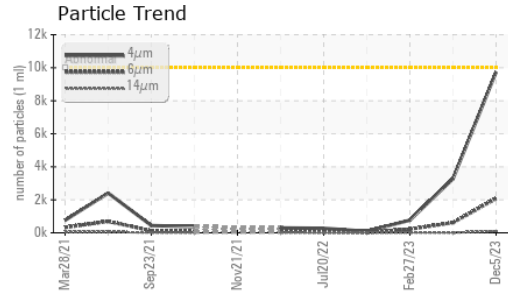
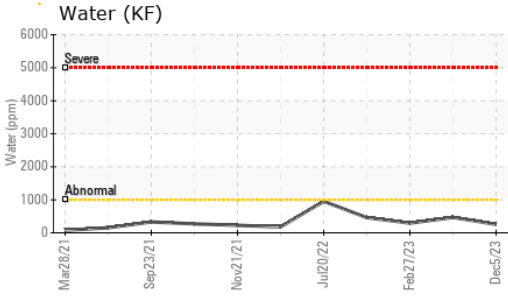
### FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>9737</b>	3275	765
Particles >6µm	ASTM D7647 >2500	<b>2077</b>	614	217
Particles >14µm	ASTM D7647 >640	<b>100</b>	10	18
Particles >21µm	ASTM D7647 >160	<b>20</b>	3	5
Particles >38µm	ASTM D7647 >40	<b>1</b>	0	1
Particles >71µm	ASTM D7647 >10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/16	<b>20/18/14</b>	19/16/10	17/15/11

### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.22</b>	0.56	0.17

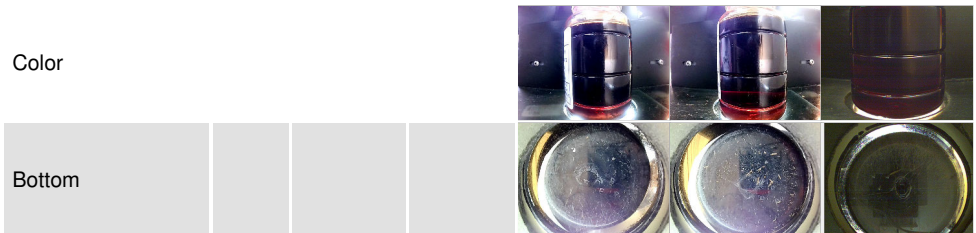
# OIL ANALYSIS REPORT



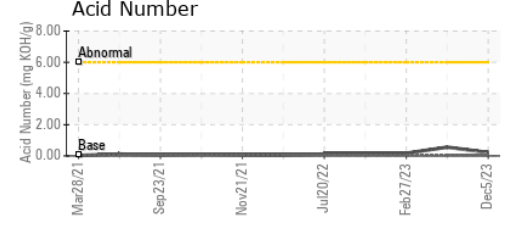
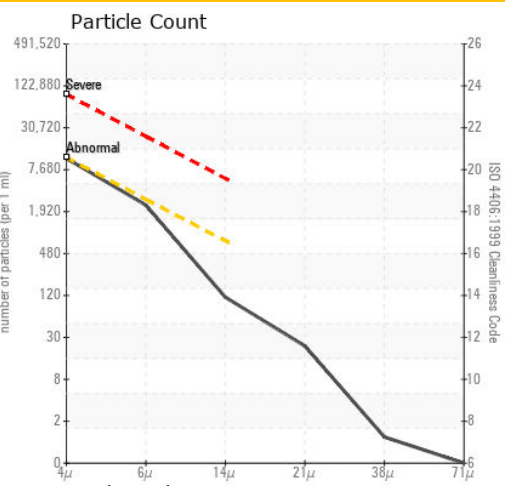
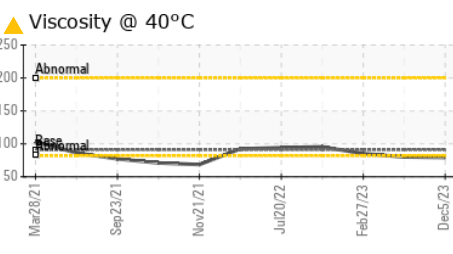
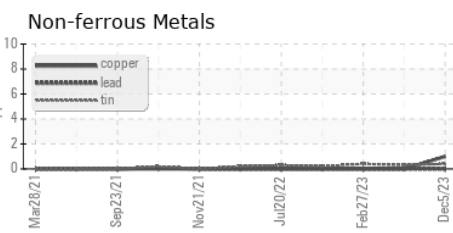
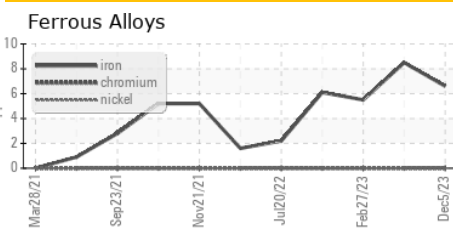
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	▲ 79.3	▲ 80.11	85.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USPM31997 **Received** : 06 Dec 2023  
**Lab Number** : 06026484 **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10776275 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**KraftHeinz - Columbia - Plant 8330 USP**  
 4600 WACO RD  
 COLUMBIA, MO  
 US 65202  
 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)

T:  
F: