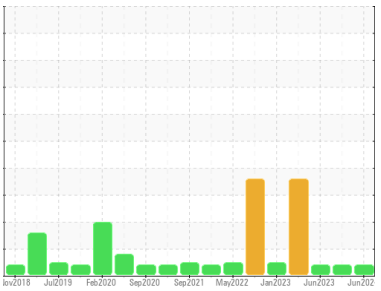
OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS

Machine Id
BUSCH 13 VACUUM (S/N S00311FMNLHGA03)
Component
Pump
Fluid
USPI MAX FG VAC 100 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris 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		**USPM36482**	USPM30942	USP243705
Sample Date		Client Info		**04 Jun 2024**	08 Feb 2024	04 Jun 2023
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				**ABNORMAL**	ABNORMAL	ATTENTION

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

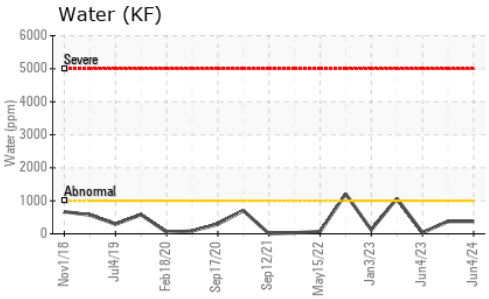
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m		**0**	0	0
Calcium	ppm	ASTM D5185m		**0**	0	0
Phosphorus	ppm	ASTM D5185m		**1**	2	2
Zinc	ppm	ASTM D5185m		**1**	0	0
Sulfur	ppm	ASTM D5185m		**37**	43	0

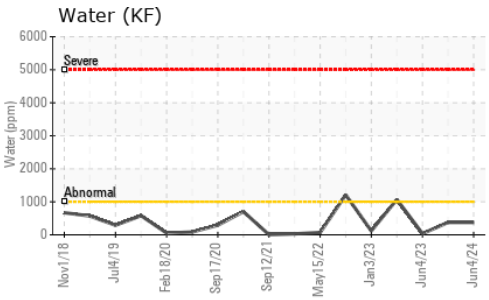
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	**3**	3	<1
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1
Water	%	ASTM D6304	>.1	**0.037**	0.037	0.003
ppm Water	ppm	ASTM D6304	>1000	**375**	376	36.4

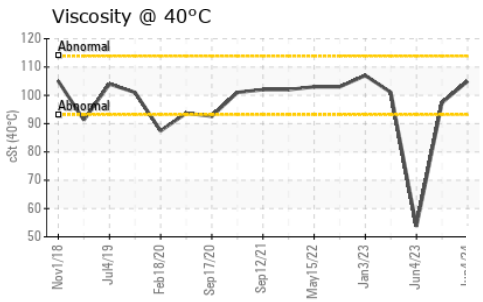
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	---	306
Particles >6µm		ASTM D7647	>1300	**---**	---	53
Particles >14µm		ASTM D7647	>160	**---**	---	5
Particles >21µm		ASTM D7647	>40	**---**	---	1
Particles >38µm		ASTM D7647	>10	**---**	---	0
Particles >71µm		ASTM D7647	>3	**---**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	---	15/13/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.081**	0.089	0.28

OIL ANALYSIS REPORT

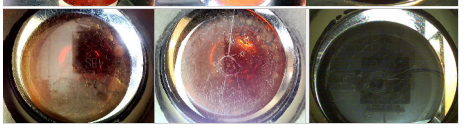




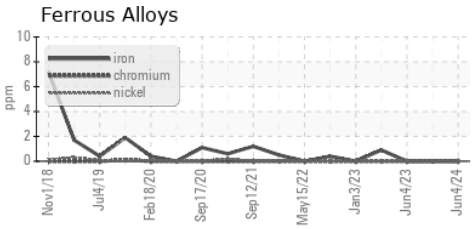


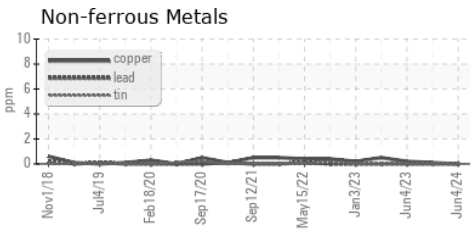
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	▲ MODER	NONE
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	>.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

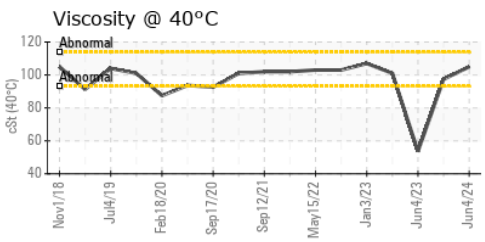
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**105**	97.4	53.68

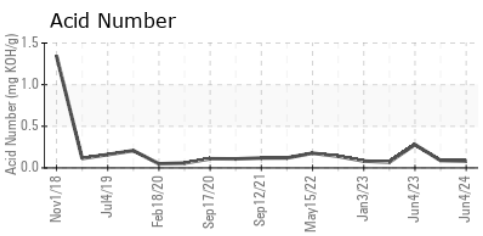
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36482
Lab Number : 06200194
Unique Number : 11062317
Test Package : IND 2

Received : 05 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Doug Bogart

SMITHFIELD FOODS-MIDDLESBORO
MIDDLESBORO, KY
US
Contact: SERVICE MANAGER
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)