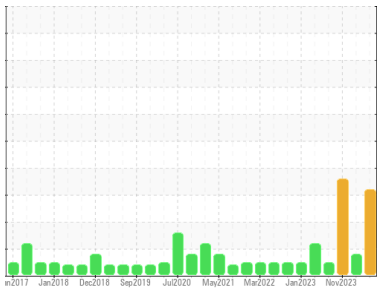
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
SLAVE DR/MAIN CHAIN
Component
Gearbox
Fluid
USPI FG GEAR 220 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you perform a filter service and use off-line filtration to improve the cleanliness of the system fluid. 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
Appearance is hazy. There is a moderate amount of visible silt present in the sample. There is a moderate 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		**USPM37605**	USPM30277	USPM31362
Sample Date		Client Info		**09 Jun 2024**	28 Feb 2024	26 Nov 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**	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**32**	6	11
Chromium	ppm	ASTM D5185m	>15	**0**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**3**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	<1
Copper	ppm	ASTM D5185m	>200	**<1**	0	<1
Tin	ppm	ASTM D5185m	>25	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	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		**10**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**2**	0	<1
Magnesium	ppm	ASTM D5185m		**9**	0	2
Calcium	ppm	ASTM D5185m		**8**	0	3
Phosphorus	ppm	ASTM D5185m		**262**	190	223
Zinc	ppm	ASTM D5185m		**56**	5	29
Sulfur	ppm	ASTM D5185m		**7173**	5749	6075

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**2**	<1	1
Sodium	ppm	ASTM D5185m		**8**	2	2
Potassium	ppm	ASTM D5185m	>20	**2**	0	2
Water	%	ASTM D6304	>0.2	▲ **0.453**	0.007	0.086
ppm Water	ppm	ASTM D6304	>2000	▲ **4530**	76	860

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	29129	---
Particles >6µm		ASTM D7647	>5000	**---**	3618	---
Particles >14µm		ASTM D7647	>640	**---**	108	---
Particles >21µm		ASTM D7647	>160	**---**	20	---
Particles >38µm		ASTM D7647	>40	**---**	0	---
Particles >71µm		ASTM D7647	>10	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	22/19/14	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.52**	0.57	0.45

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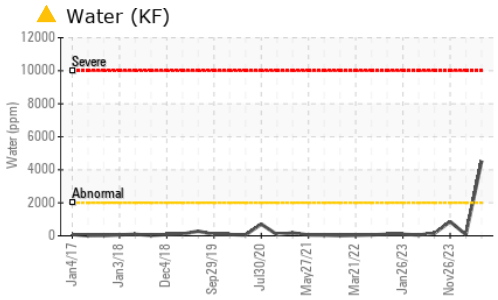
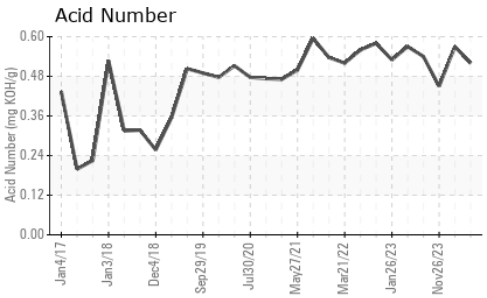
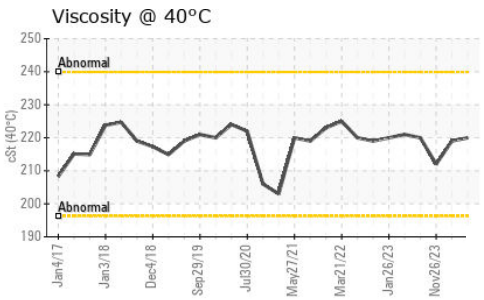




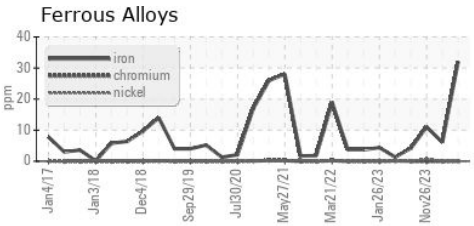


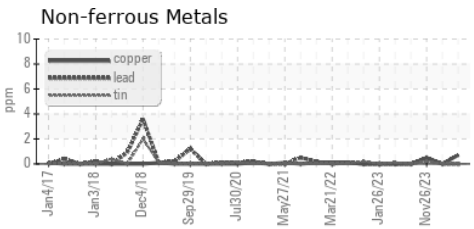
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	▲ MODER
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	● **HAZY**	NORML	● HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**0.2%**	NEG	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	▲ 1.0

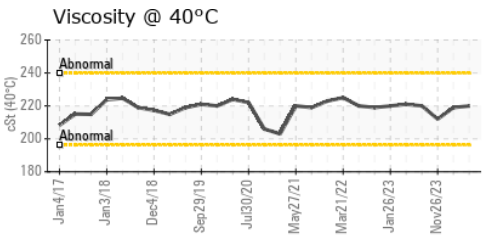
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**220**	219	212

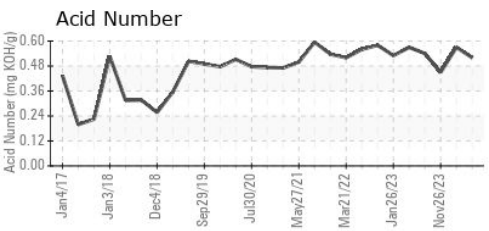
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM37605
Lab Number : 06205465
Unique Number : 11072926
Test Package : IND 2

Received : 10 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Doug Bogart

TYSON-DAKOTA CITY-PRO
P.O. BOX 515
DAKOTA CITY, NE
US 68731
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: (605)235-2960