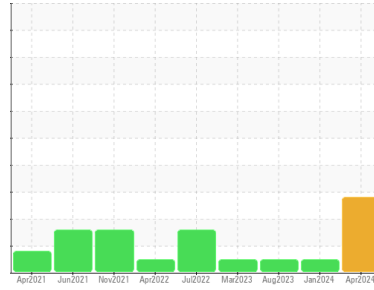




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
SOUTH MASSAGER 2
 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 a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water 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		USPM36765	USPM31730	USPM29187
Sample Date	Client Info		18 Apr 2024	02 Jan 2024	19 Aug 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			ATTENTION	NORMAL	NORMAL

WEAR METALS

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

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 0	<1	0	1
Calcium	ppm	ASTM D5185m 0	4	2	22
Phosphorus	ppm	ASTM D5185m 1800	801	703	982
Zinc	ppm	ASTM D5185m 0	0	0	18
Sulfur	ppm	ASTM D5185m 0	0	0	208

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	8	4	1
Sodium	ppm	ASTM D5185m	0	0	1
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >.1	▲ 0.130	0.062	0.062
ppm Water	ppm	ASTM D6304 >1000	▲ 1302	622	626.6

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	● 5218	602	687
Particles >6µm	ASTM D7647	>1300	● 1488	249	197
Particles >14µm	ASTM D7647	>160	122	44	46
Particles >21µm	ASTM D7647	>40	37	13	18
Particles >38µm	ASTM D7647	>10	8	1	2
Particles >71µm	ASTM D7647	>3	3	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	● 20/18/14	16/15/13	17/15/13

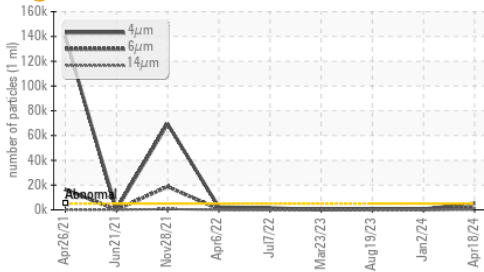
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.046	0.092	0.19

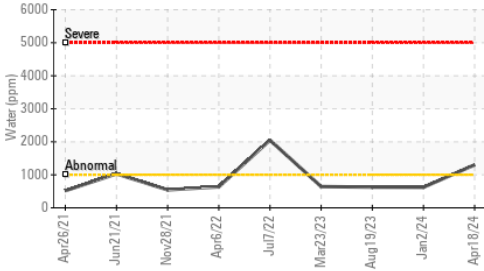


OIL ANALYSIS REPORT

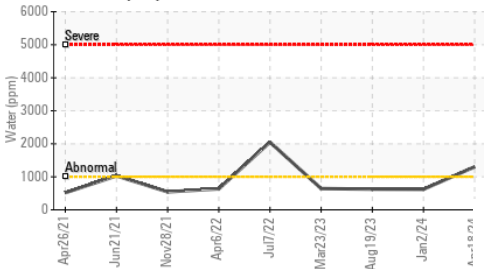
Particle Trend



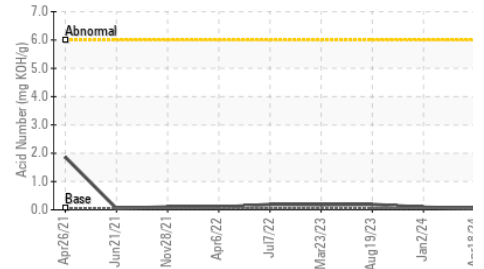
Water (KF)



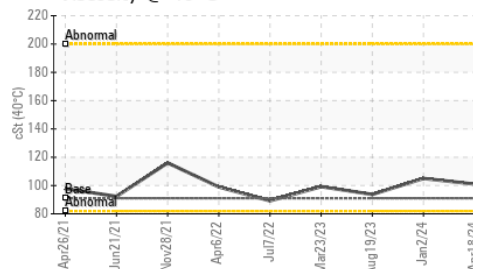
Water (KF)



Acid Number



Viscosity @ 40°C

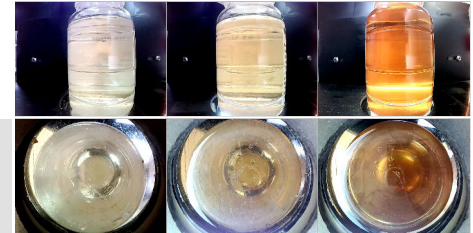


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	101	105	93.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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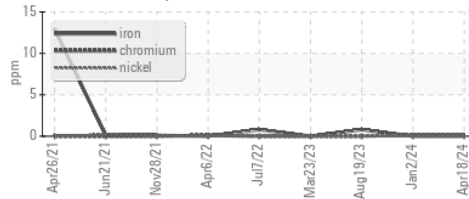
Color



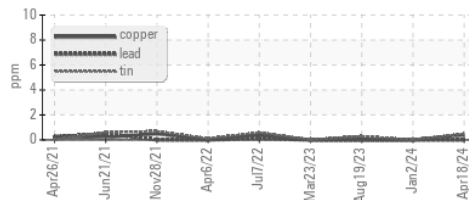
Bottom

GRAPHS

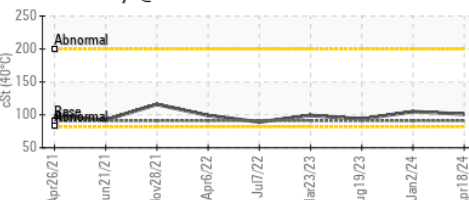
Ferrous Alloys



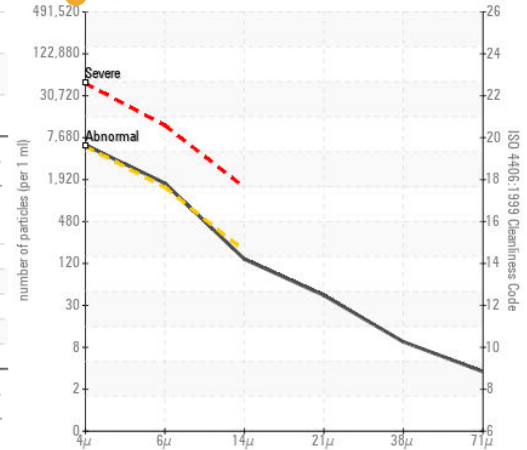
Non-ferrous Metals



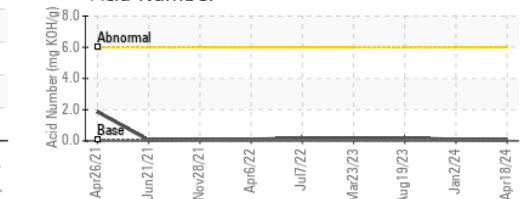
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : USPM36765
 Lab Number : 06154393
 Unique Number : 10989816
 Test Package : IND 2

Received : 19 Apr 2024
 Tested : 22 Apr 2024
 Diagnosed : 22 Apr 2024 - Doug Bogart

TYSON HILLSHIRE - SAINT JOSEPH
 5807 MITCHELL AVE
 SAINT JOSEPH, MO
 US 64507
 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: