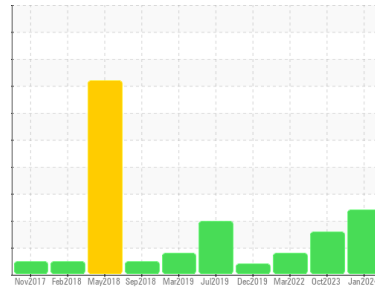




OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Machine Id
VACUUM - RM 123A-RTE-LN 1 CRY 1ST BTTM (S/N N15111903)

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

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil.

▲ Fluid Condition

Additive levels indicate the addition of a different brand or type of oil. Confirmed. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	USPM30627	USPM29869	USPM18349
Sample Date	Client Info	04 Jan 2024	03 Oct 2023	29 Mar 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	7	0	7
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	<1
Aluminum	ppm	ASTM D5185m >7	0	<1	0
Lead	ppm	ASTM D5185m >12	0	0	0
Copper	ppm	ASTM D5185m >30	0	0	0
Tin	ppm	ASTM D5185m >9	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	---	---
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	2	2	<1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m 0	0	<1	0
Calcium	ppm	ASTM D5185m 0	0	<1	0
Phosphorus	ppm	ASTM D5185m 1800	▲ 4	▲ 1	1530
Zinc	ppm	ASTM D5185m 0	0	0	0
Sulfur	ppm	ASTM D5185m 0	30	10	22

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >60	26	28	<1
Sodium	ppm	ASTM D5185m	<1	0	1
Potassium	ppm	ASTM D5185m >20	0	<1	0
Water	%	ASTM D6304 >.1	0.016	0.068	0.059
ppm Water	ppm	ASTM D6304 >1000	165	682.5	590.2

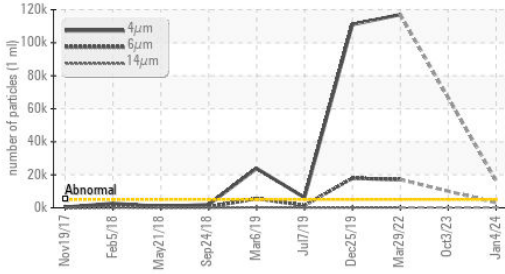
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 16553	---	▲ 117040
Particles >6µm	ASTM D7647 >1300	▲ 3078	---	▲ 17089
Particles >14µm	ASTM D7647 >160	▲ 166	---	132
Particles >21µm	ASTM D7647 >40	▲ 58	---	15
Particles >38µm	ASTM D7647 >10	4	---	2
Particles >71µm	ASTM D7647 >3	1	---	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 21/19/15	---	▲ 24/21/14

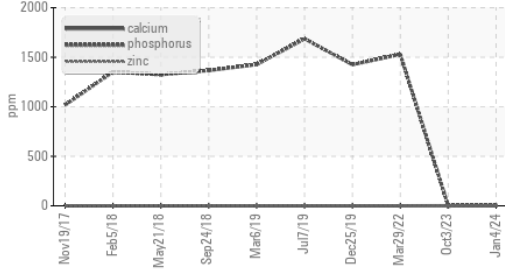
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.13	0.25	0.063

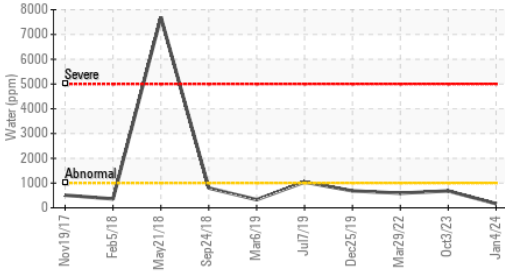
Particle Trend



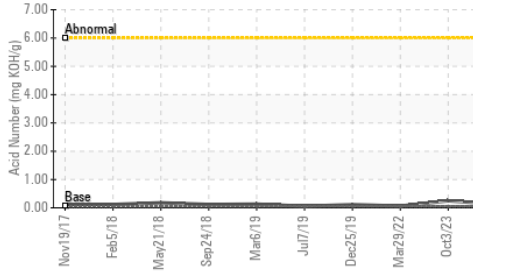
Additives



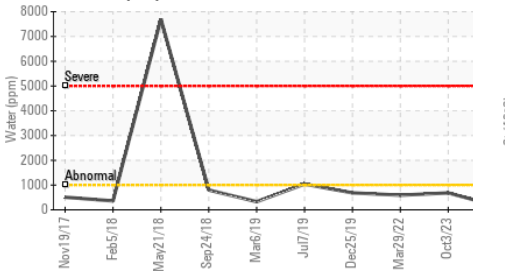
Water (KF)



Acid Number



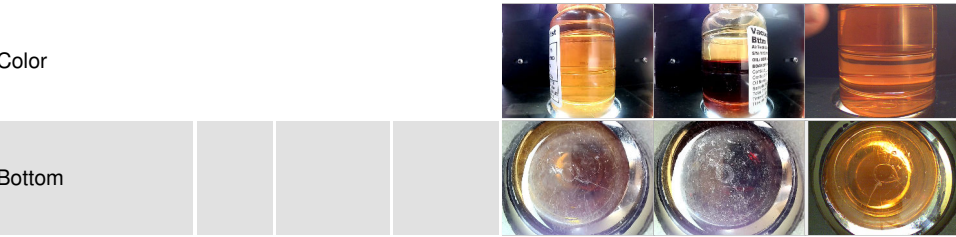
Water (KF)



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	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

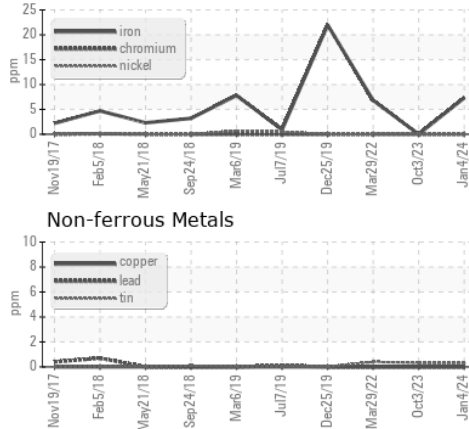
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	93.7	91.7	104

SAMPLE IMAGES	method	limit/base	current	history1	history2
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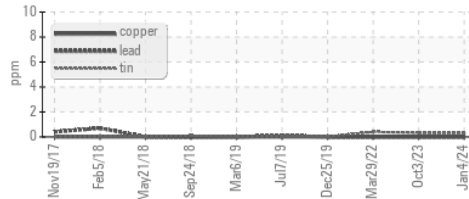


GRAPHS

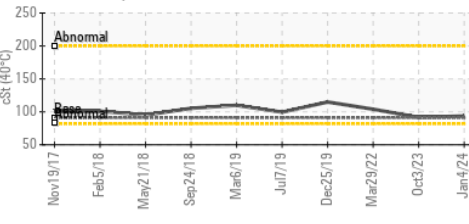
Ferrous Alloys



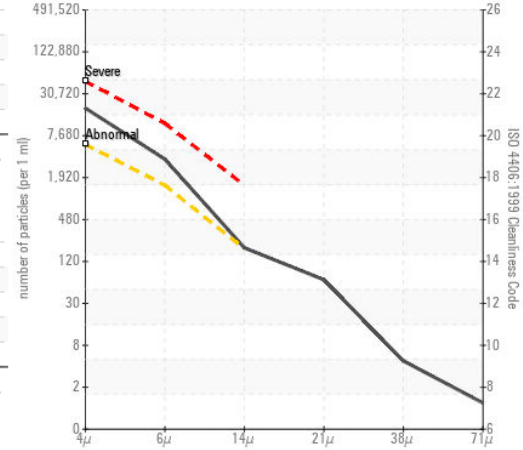
Non-ferrous Metals



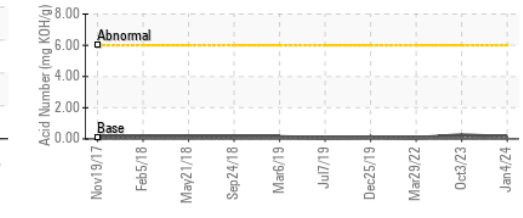
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : USPM30627
 Lab Number : 06062028
 Unique Number : 10833410
 Test Package : IND 2

BOARS HEAD - NEW CASTLE
 125 E COUNTY RD 400 S
 NEW CASTLE, IN
 US 47362
 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: