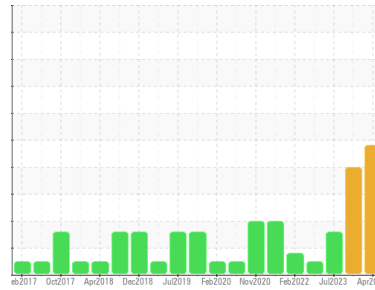




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
VAC 1178605-2 NORTH (S/N U061501855)
 Component
Pump
 Fluid
USPI VAC 100 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you follow the water drain-off procedure for 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. Free water present. There is a light 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	USPM36814	USPM31317	USPM27375
Sample Date	Client Info	23 Apr 2024	18 Nov 2023	13 Jul 2023
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	10	0	1
Chromium	ppm	ASTM D5185m >5	0	0	0
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	0	0	<1
Lead	ppm	ASTM D5185m >12	0	0	0
Copper	ppm	ASTM D5185m >30	0	0	0
Tin	ppm	ASTM D5185m >9	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	1	0	<1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 0	<1	<1	0
Calcium	ppm	ASTM D5185m 0	2	0	0
Phosphorus	ppm	ASTM D5185m 1800	804	891	1330
Zinc	ppm	ASTM D5185m 0	2	0	0
Sulfur	ppm	ASTM D5185m 0	8	52	28

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >60	5	4	4
Sodium	ppm	ASTM D5185m	0	0	<1
Potassium	ppm	ASTM D5185m >20	0	0	1
Water	%	ASTM D6304 >.1	▲ 0.167	▲ 0.137	0.095
ppm Water	ppm	ASTM D6304 >1000	▲ 1670	▲ 1377.9	956.0

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 152223	▲ 22551	▲ 11589
Particles >6µm	ASTM D7647 >1300	▲ 57119	▲ 7611	▲ 3218
Particles >14µm	ASTM D7647 >160	▲ 177	▲ 489	▲ 161
Particles >21µm	ASTM D7647 >40	19	▲ 94	28
Particles >38µm	ASTM D7647 >10	2	7	3
Particles >71µm	ASTM D7647 >3	0	1	1
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 24/23/15	▲ 22/20/16	▲ 21/19/15

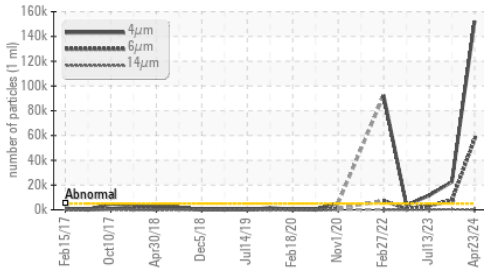
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.64	0.16	0.55

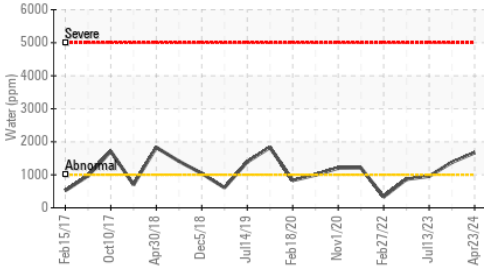


OIL ANALYSIS REPORT

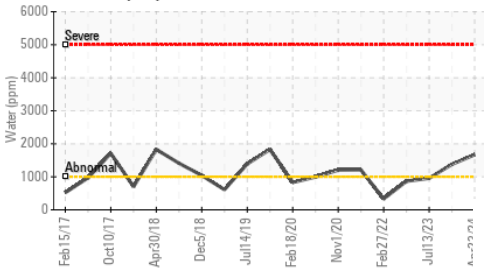
▲ Particle Trend



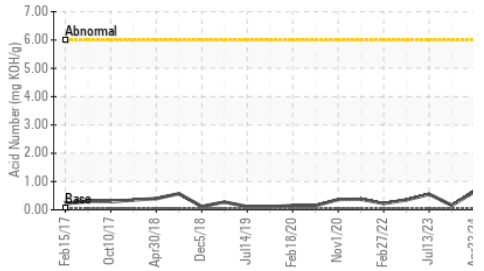
▲ Water (KF)



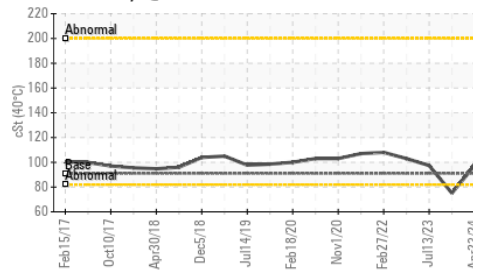
▲ Water (KF)



Acid Number



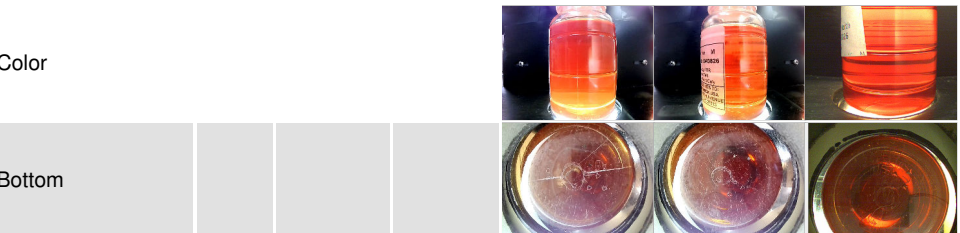
Viscosity @ 40°C



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	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	▲ 0.2%	NEG
Free Water	scalar	*Visual		▲ 2.0	NEG

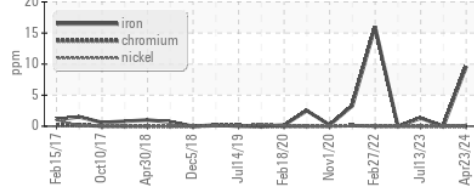
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	97.4	75.1	97.4

SAMPLE IMAGES

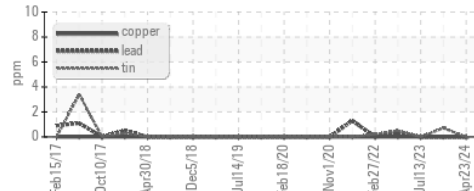


GRAPHS

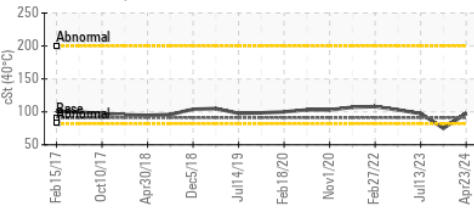
Ferrous Alloys



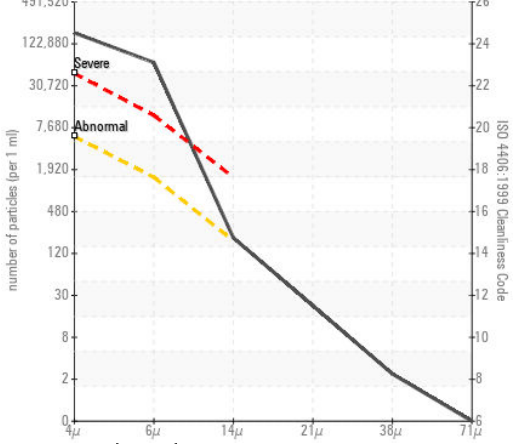
Non-ferrous Metals



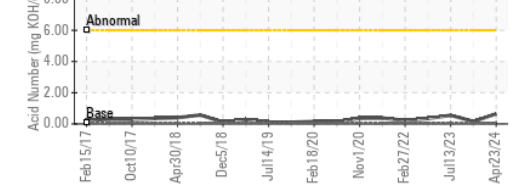
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36814
Lab Number : 06159131
Unique Number : 10994554
Test Package : IND 2
Received : 24 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Doug Bogart

JBS - BEARDSTOWN
 8295 ARENZVILLE RD
 BEARDSTOWN, IL
 US 62618
 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)