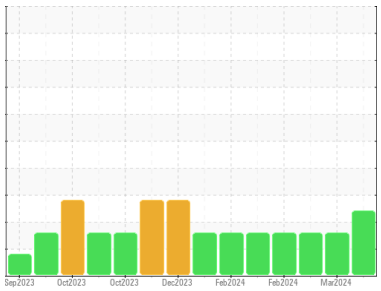
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
SL4-2 ASSET 9705 (S/N C1444000126)
Component
Vacuum Pump
Fluid
USPI 1580-125 (11 GAL)

DIAGNOSIS

Recommendation
We recommend an early resample to monitor this condition.

Wear
The iron level is abnormal.

Contamination
Elemental level of silicon (Si) above normal. The amount and size of particulates present in the system are acceptable.

Fluid Condition
An increase in the AN level is noted. Confirmed.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0006759**	USP0006259	USPM30329
Sample Date		Client Info		**28 Mar 2024**	20 Mar 2024	01 Mar 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**389**	265	410
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	MARGINAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ **32**	2	<1
Chromium	ppm	ASTM D5185m	>20	**1**	0	0
Nickel	ppm	ASTM D5185m	>20	**1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	1	0
Lead	ppm	ASTM D5185m	>20	**1**	0	0
Copper	ppm	ASTM D5185m	>20	**3**	1	<1
Tin	ppm	ASTM D5185m	>20	**1**	<1	2
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
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**1**	0	0
Magnesium	ppm	ASTM D5185m		**<1**	2	0
Calcium	ppm	ASTM D5185m		**6**	4	<1
Phosphorus	ppm	ASTM D5185m		**1626**	1568	1803
Zinc	ppm	ASTM D5185m		**11**	<1	0
Sulfur	ppm	ASTM D5185m		**1000**	1136	1267

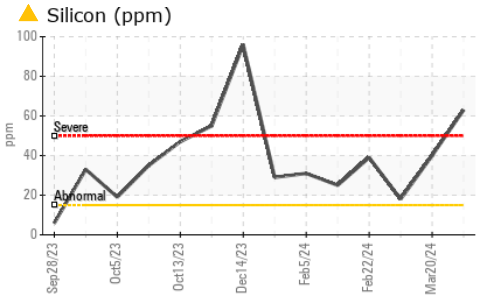
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **63**	▲ 40	▲ 18
Sodium	ppm	ASTM D5185m		**5**	0	0
Potassium	ppm	ASTM D5185m	>20	**1**	3	0
Water	%	ASTM D6304	>2.0	**0.313**	0.235	0.178
ppm Water	ppm	ASTM D6304	>20000	**3135**	2358	1789

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**491**	152	690
Particles >6µm	ASTM D7647	>1300	**131**	41	254
Particles >14µm	ASTM D7647	>160	**26**	2	27
Particles >21µm	ASTM D7647	>40	**9**	1	8
Particles >38µm	ASTM D7647	>10	**1**	0	1
Particles >71µm	ASTM D7647	>3	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	**16/14/12**	14/13/9	17/15/12

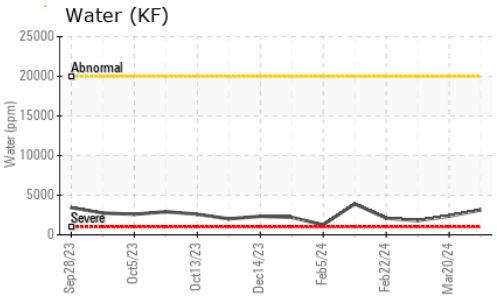
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**2.04**	0.85	1.45

OIL ANALYSIS REPORT

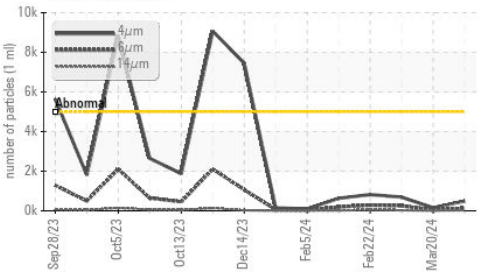
Silicon (ppm)



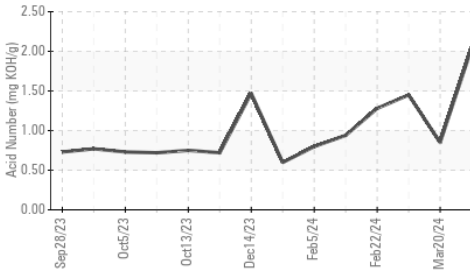
Water (KF)



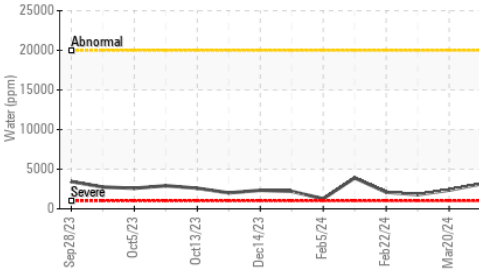
Particle Trend



Acid Number



Water (KF)



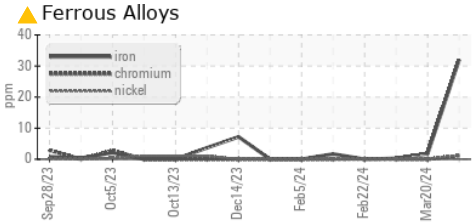
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>2.0	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**96.8**	94.9	101

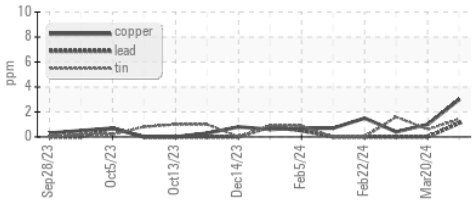
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

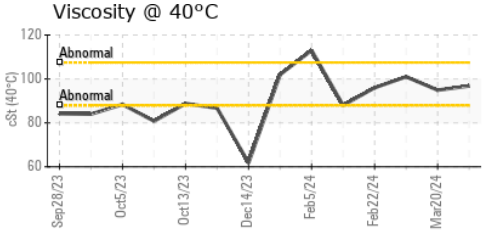
Ferrous Alloys



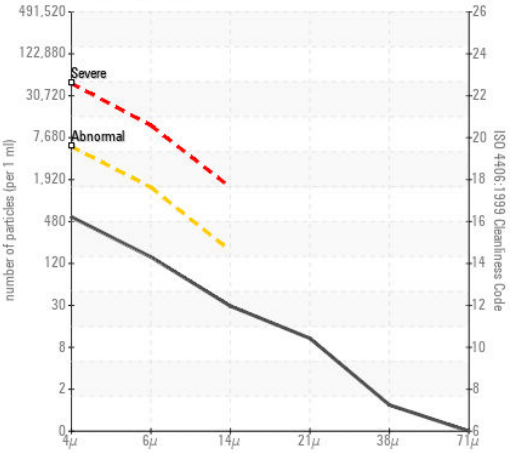
Non-ferrous Metals



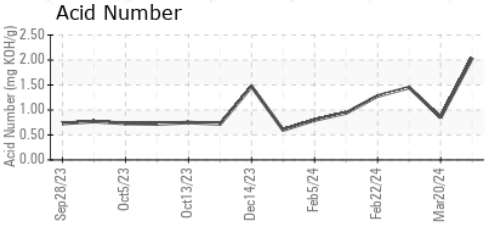
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0006759
Lab Number : 06147359
Unique Number : 10977437
Test Package : IND 2

Received : 12 Apr 2024
Tested : 16 Apr 2024
Diagnosed : 16 Apr 2024 - Doug Bogart

CAMBRIA
31496 CAMBRIA AVE
LE SUEUR, MN
US 56058
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: