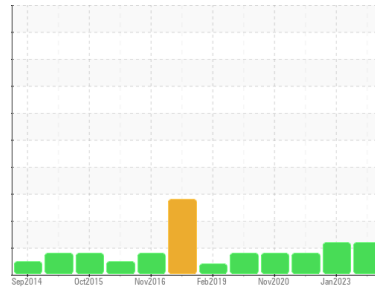




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

LINE 10 (S/N 18707311)

Component

Hydraulic System

Fluid

SUNOCO SUNVIS 846 ISO 46 (50 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0827129	WC0760814	WC0560295
Sample Date	Client Info		08 May 2024	09 Jan 2023	19 Oct 2021
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	Not Changd
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >40	0	<1	<1
Chromium	ppm	ASTM D5185m >4	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >4	<1	0	0
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >60	11	10	7
Tin	ppm	ASTM D5185m >4	<1	0	<1
Antimony	ppm	ASTM D5185m	---	---	0
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	0	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1
Manganese	ppm	ASTM D5185m	1	0	0
Magnesium	ppm	ASTM D5185m	0	2	2
Calcium	ppm	ASTM D5185m	60	69	58
Phosphorus	ppm	ASTM D5185m	323	349	303
Zinc	ppm	ASTM D5185m	419	460	429
Sulfur	ppm	ASTM D5185m	6763	2173	967

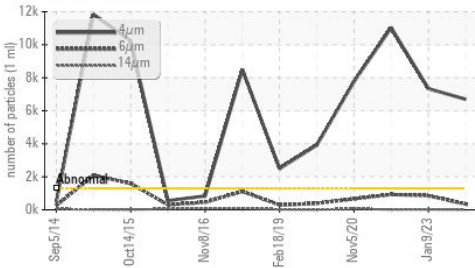
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<1	<1	0
Sodium	ppm	ASTM D5185m	1	0	0
Potassium	ppm	ASTM D5185m >20	0	0	0

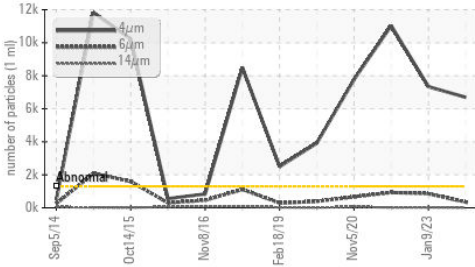
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	▲ 6695	▲ 7339	▲ 11033
Particles >6µm	ASTM D7647	>320	● 350	▲ 855	▲ 926
Particles >14µm	ASTM D7647	>80	10	22	16
Particles >21µm	ASTM D7647	>20	2	5	3
Particles >38µm	ASTM D7647	>4	0	1	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 20/16/10	▲ 20/17/12	▲ 21/17/11

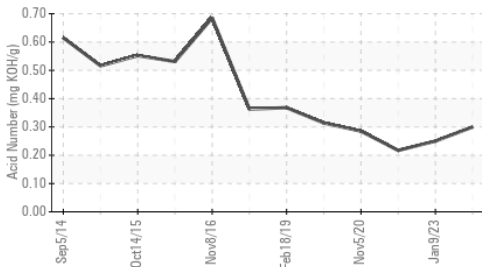
Particle Trend



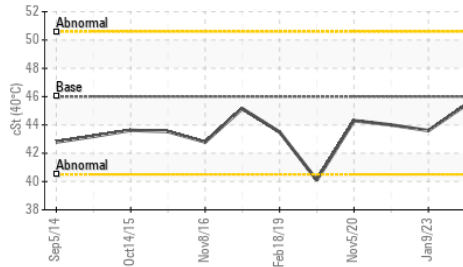
Particle Trend



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.30	0.25	0.217

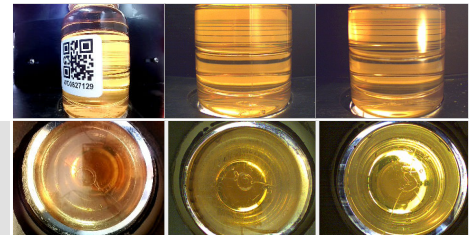
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	45.4	43.6	44.0

SAMPLE IMAGES		method	limit/base	current	history1	history2
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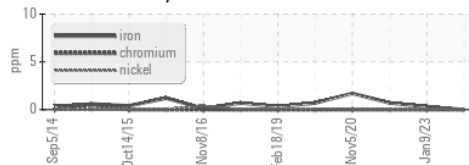
Color

Bottom

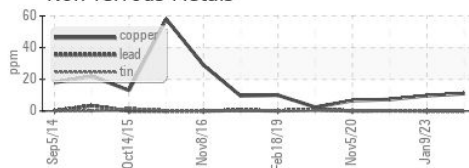


GRAPHS

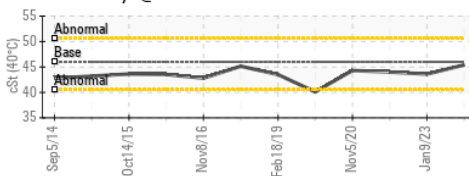
Ferrous Alloys



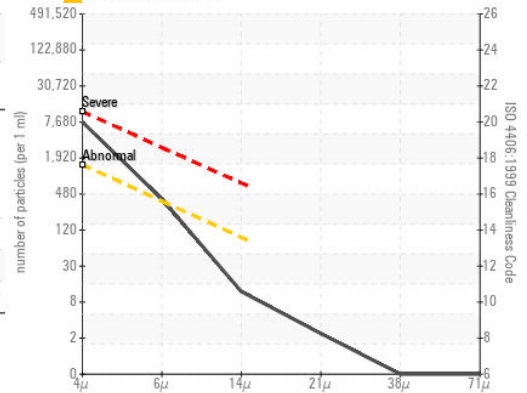
Non-ferrous Metals



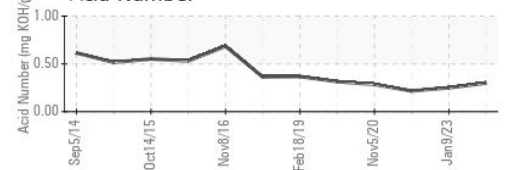
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0827129
Lab Number : 06177090
Unique Number : 11023143
Test Package : IND 2

Received : 13 May 2024
Tested : 14 May 2024
Diagnosed : 14 May 2024 - Don Baldrige

Altium Packaging - ALLENTOWN - Plant 1034A
 6831 RUPPSVILLE RD
 ALLENTOWN, PA
 US 18106

Contact: JIM BUCHANAN
 james.buchanan@altiumpkg.com
 T: (610)597-6530

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)