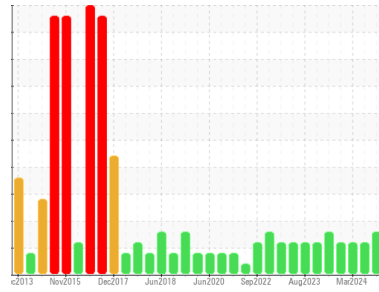




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
412
 Machine Id
71 BANBURY MOTOR
 Component
Outboard Journal Bearing
 Fluid
ESSO NUTO H ISO 68 (1 QTS)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. 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

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		WC0912077	WC0912138	WC0479423
Sample Date	Client Info		04 Jun 2024	09 Apr 2024	05 Mar 2024
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	400
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		18	14	19
Iron	ppm	ASTM D5185m >60	<1	0	<1
Chromium	ppm	ASTM D5185m >20	0	0	<1
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >4	0	0	1
Lead	ppm	ASTM D5185m >250	5	0	0
Copper	ppm	ASTM D5185m >125	31	0	2
Tin	ppm	ASTM D5185m >80	18	6	7
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	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 5	<1	<1	2
Calcium	ppm	ASTM D5185m 50	48	52	50
Phosphorus	ppm	ASTM D5185m 330	316	349	313
Zinc	ppm	ASTM D5185m 420	378	428	404
Sulfur	ppm	ASTM D5185m 3100	4776	3509	2975

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	2	2
Sodium	ppm	ASTM D5185m	2	0	<1
Potassium	ppm	ASTM D5185m >20	0	0	<1

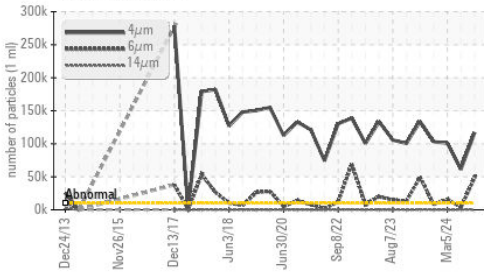
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 116831	▲ 61547	▲ 100865
Particles >6µm	ASTM D7647	>2500	▲ 49074	● 4071	▲ 15656
Particles >14µm	ASTM D7647	>160	▲ 232	52	135
Particles >21µm	ASTM D7647	>40	18	10	19
Particles >38µm	ASTM D7647	>10	0	1	1
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	▲ 24/23/15	▲ 23/19/13	▲ 24/21/14

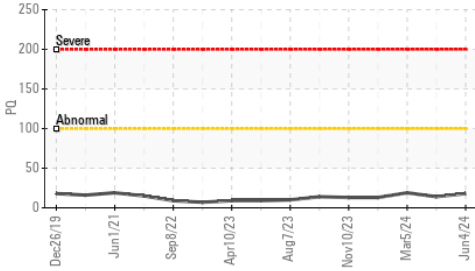


OIL ANALYSIS REPORT

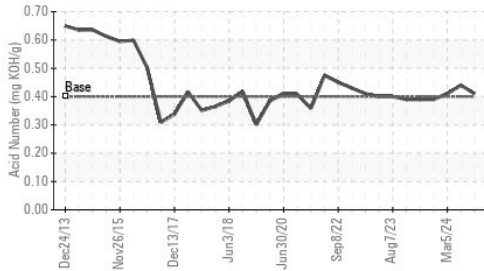
Particle Trend



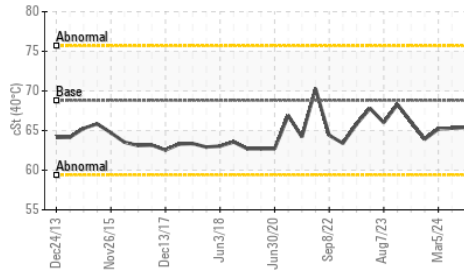
PQ



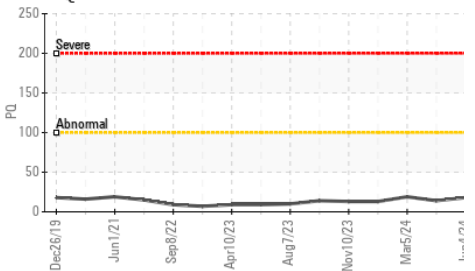
Acid Number



Viscosity @ 40°C



PQ



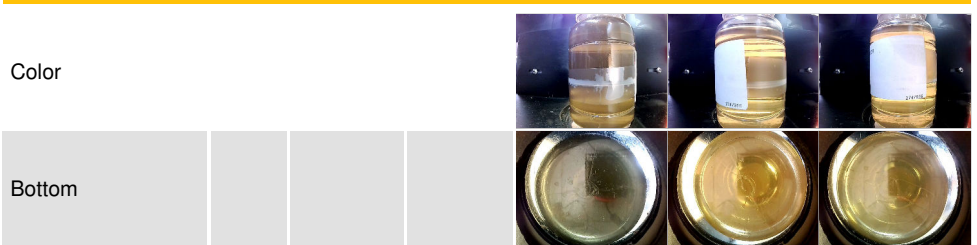
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D8045 .40	0.41	0.44	0.41	
VISUAL					
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	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES

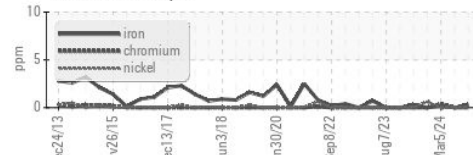
method	limit/base	current	history1	history2
Visc @ 40°C cSt	ASTM D445 68.8	65.4	65.3	65.2

SAMPLE IMAGES

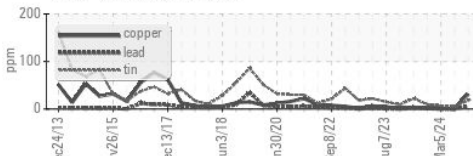


GRAPHS

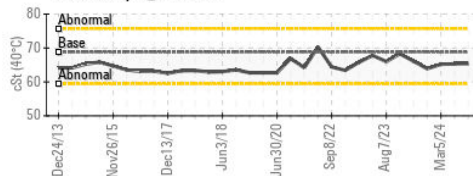
Ferrous Alloys



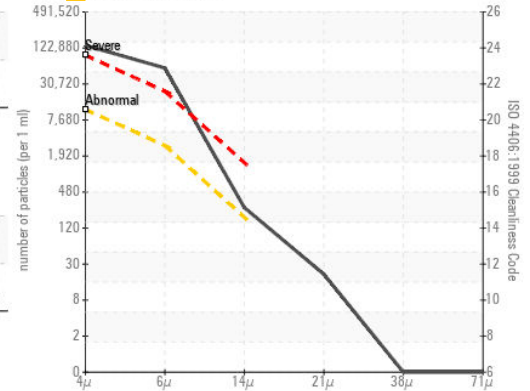
Non-ferrous Metals



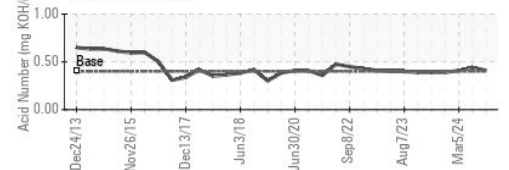
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0912077

Lab Number : 06206379

Unique Number : 11073840

Test Package : IND 2 (Additional Tests: PQ, PrtCont)

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)

Received : 11 Jun 2024

Tested : 13 Jun 2024

Diagnosed : 13 Jun 2024 - Don Baldrige

BRIDGESTONE FIRESTONE - DES MOINES

4600 NW 2ND AVE

DES MOINES, IA

US 50313

Contact: SCOTT CARTER

CarterScottA@FirestoneAg.com

T: x:

F: x: