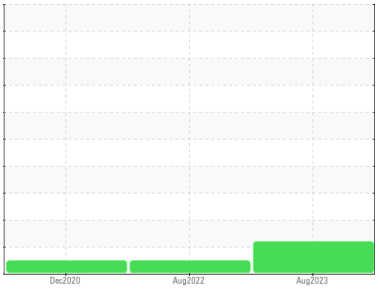
PROBLEM SUMMARY

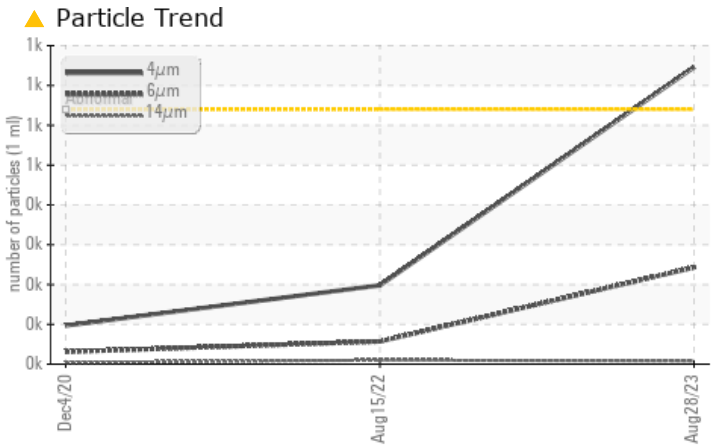
Area
CTF
Machine Id
Dyno Side B
Component
Pump Bearing Lube
Fluid
ESSO NUTO H ISO 68 (200 GAL)

Sample Rating Trend



ISO

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Fluid and Filters changed in August 2022
Filters changed again in August 2023)

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	NORMAL	NORMAL
Particles >4µm		ASTM D7647	>640	▲ **746**	198	97
Particles >6µm		ASTM D7647	>160	▲ **243**	57	31
Oil Cleanliness		ISO 4406 (c)	>16/14/11	▲ **17/15/10**	15/13/10	14/12/9

Customer Id: MICGRE
Sample No.: WC0810916
Lab Number: 05938897
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

15 Aug 2022 Diag: Jonathan Hester

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

04 Dec 2020 Diag: Angela Borella

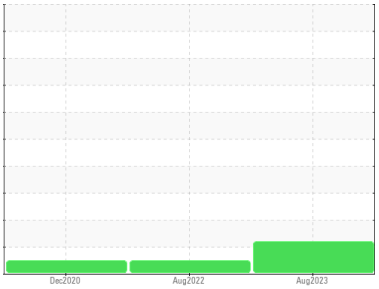
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
CTF
Machine Id
Dyno Side B
Component
Pump Bearing Lube
Fluid
ESSO NUTO H ISO 68 (200 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Fluid and Filters changed in August 2022
Filters changed again in August 2023)

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) 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		**WC0810916**	WC0500753	WC0500745
Sample Date	Client Info		**28 Aug 2023**	15 Aug 2022	04 Dec 2020
Machine Age	Client Info		**34**	32	0
Oil Age	Client Info		**1**	0	0
Oil Changed	Client Info		**Not Changd**	Not Changd	N/A
Sample Status			**ATTENTION**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	**0**	<1	0
Chromium	ppm	ASTM D5185m	>5	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>4	**<1**	<1	0
Lead	ppm	ASTM D5185m	>30	**0**	0	<1
Copper	ppm	ASTM D5185m	>17	**0**	<1	<1
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	<1
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	**0**	<1	0
Calcium	ppm	ASTM D5185m	50	**62**	89	69
Phosphorus	ppm	ASTM D5185m	330	**339**	356	362
Zinc	ppm	ASTM D5185m	420	**421**	480	438
Sulfur	ppm	ASTM D5185m	3100	**8374**	7875	2350

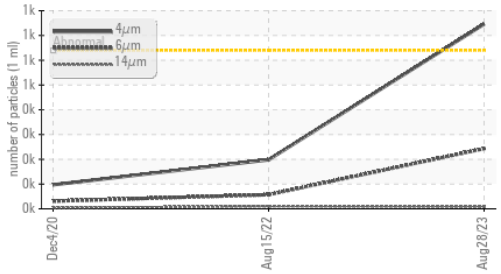
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0
Water	%	ASTM D6304	>0.2	**0.002**	---	---
ppm Water	ppm	ASTM D6304	>2000	**18.1**	---	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	▲ **746**	198	97
Particles >6µm	ASTM D7647	>160	▲ **243**	57	31
Particles >14µm	ASTM D7647	>20	**8**	10	4
Particles >21µm	ASTM D7647	>4	**1**	3	1
Particles >38µm	ASTM D7647	>3	**0**	0	0
Particles >71µm	ASTM D7647	>3	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>16/14/11	▲ **17/15/10**	15/13/10	14/12/9

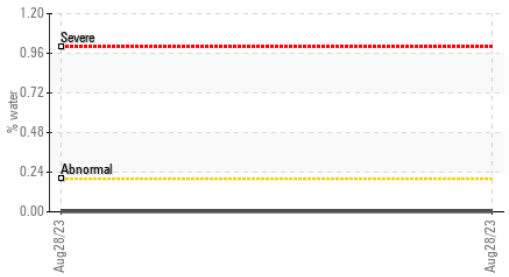
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.40	**0.29**	0.26	0.278

OIL ANALYSIS REPORT

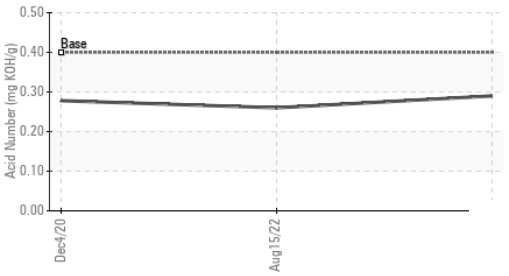
Particle Trend



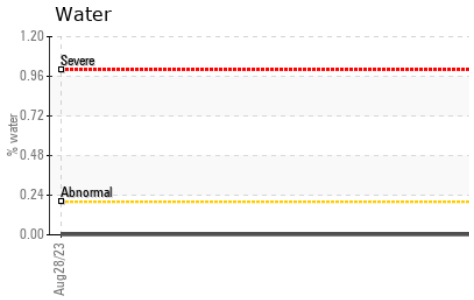
Water



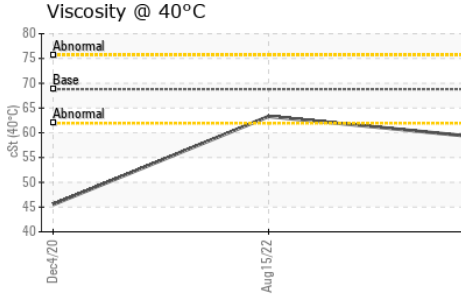
Acid Number



Water

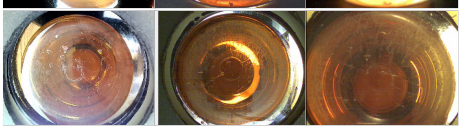


Viscosity @ 40°C



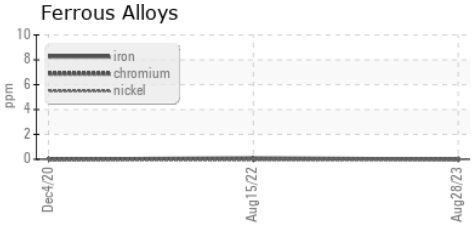
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**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	**59.0**	63.3	45.5

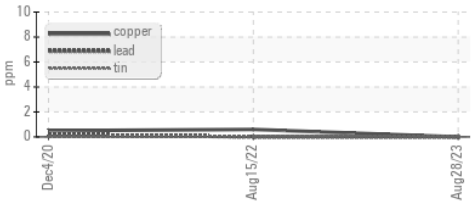
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

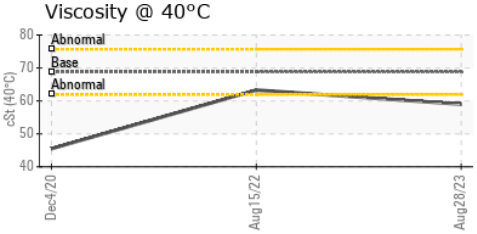
Ferrous Alloys



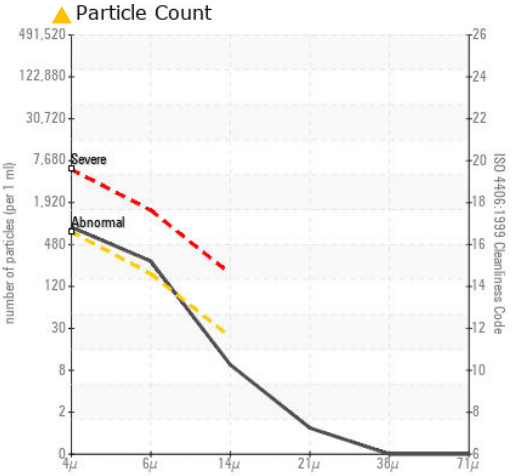
Non-ferrous Metals



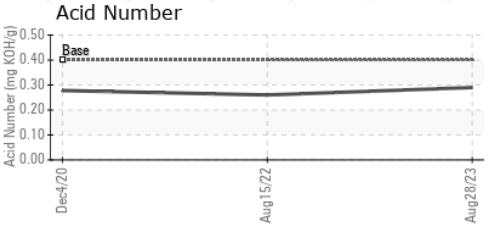
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0810916 **Received** : 30 Aug 2023
Lab Number : 05938897 **Diagnosed** : 31 Aug 2023
Unique Number : 10629509 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

Michelin Americas Research Company
515 Michelin Road
Greenville, SC
US 29605
Contact: Vince Wilson
vince.wilson@michelin.com
T: (864)422-3913
F: (864)422-3518