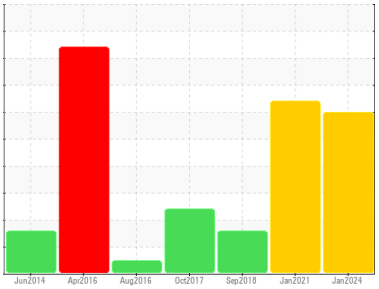
PROBLEM SUMMARY

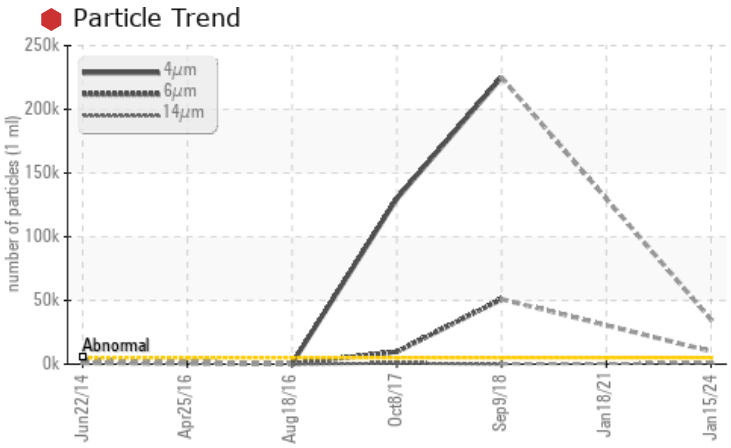
Sample Rating Trend



ISO

Machine Id
PRESS 39 (S/N 358002)
Component
Hydraulic System
Fluid
ESSO NUTO H ISO 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **34953**	---	▲ 224914
Particles >6µm		ASTM D7647	>1300	⬢ **10069**	---	▲ 50991
Particles >14µm		ASTM D7647	>160	▲ **844**	---	121
Particles >21µm		ASTM D7647	>40	⬢ **326**	---	20
Oil Cleanliness		ISO 4406 (c)	>19/17/14	⬢ **22/21/17**	---	▲ 25/23/14

Customer Id: PLAROM
Sample No.: RP0038681
Lab Number: 06061077
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

18 Jan 2021 Diag: Jonathan Hester

WEAR

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.The copper level is severe. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.

view report

09 Sep 2018 Diag: Jonathan Hester

WEAR

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.The copper level has decreased, but is still abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

08 Oct 2017 Diag: Don Baldridge

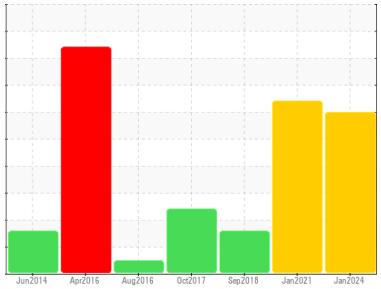
ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present 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

Machine Id
PRESS 39 (S/N 358002)
Component
Hydraulic System
Fluid
ESSO NUTO H ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0038681**	RP05160641	RP99299
Sample Date		Client Info		**15 Jan 2024**	18 Jan 2021	09 Sep 2018
Machine Age	wks	Client Info		**0**	0	0
Oil Age	wks	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**<1**	1	1
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	<1
Lead	ppm	ASTM D5185m	>20	**0**	3	0
Copper	ppm	ASTM D5185m	>20	**2**	101	14
Tin	ppm	ASTM D5185m	>20	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	0	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	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m	5	**0**	0	0
Calcium	ppm	ASTM D5185m	50	**2**	0	9
Phosphorus	ppm	ASTM D5185m	330	**321**	358	336
Zinc	ppm	ASTM D5185m	410	**278**	313	386

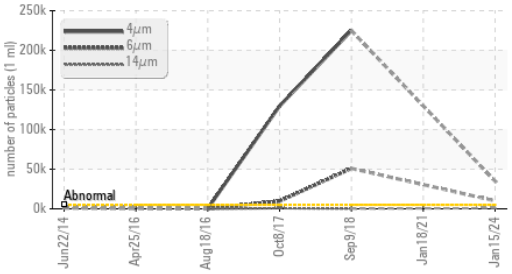
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	5	<1
Sodium	ppm	ASTM D5185m		**<1**	2	0
Potassium	ppm	ASTM D5185m	>20	**0**	<1	1
Water	%	ASTM D6304	>0.05	**0.005**	0.003	0.005
ppm Water	ppm	ASTM D6304	>500	**54**	32.1	50

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**34953**	---	224914
Particles >6µm		ASTM D7647	>1300	**10069**	---	50991
Particles >14µm		ASTM D7647	>160	**844**	---	121
Particles >21µm		ASTM D7647	>40	**326**	---	20
Particles >38µm		ASTM D7647	>10	**17**	---	2
Particles >71µm		ASTM D7647	>3	**1**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**22/21/17**	---	25/23/14

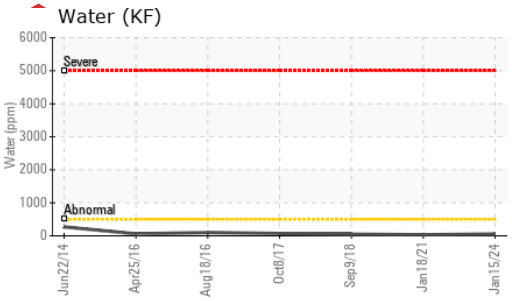
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.45	**0.35**	0.360	0.496

OIL ANALYSIS REPORT

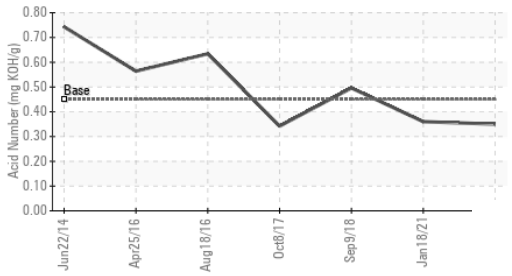
Particle Trend



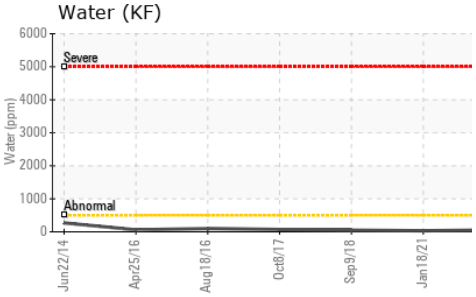
Water (KF)



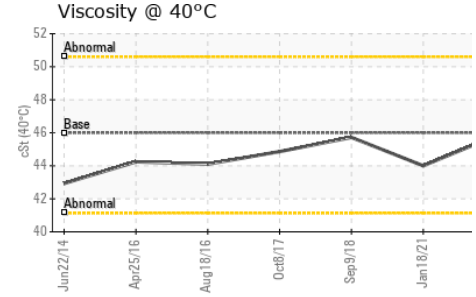
Acid Number



Water (KF)

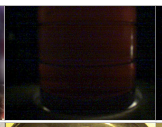
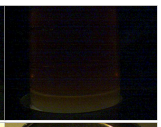
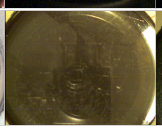
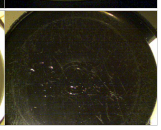


Viscosity @ 40°C



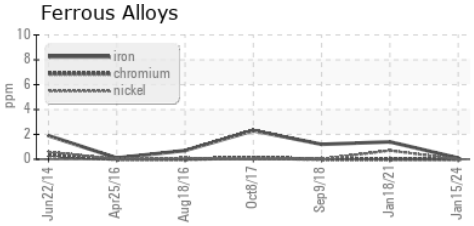
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ MODER	VLITE
Sand/Dirt	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	**45.8**	44.0	45.72

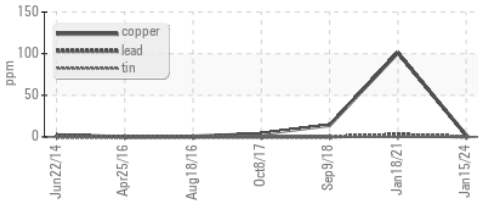
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

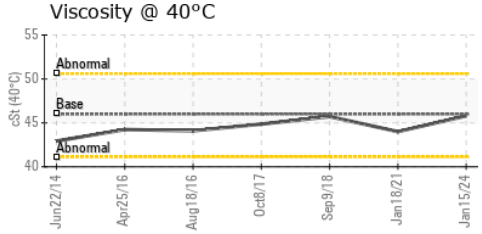
Ferrous Alloys



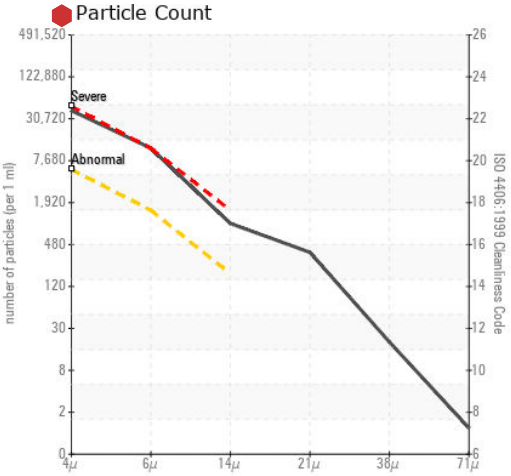
Non-ferrous Metals



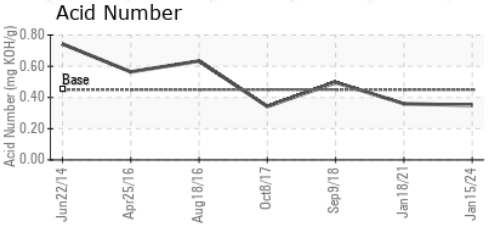
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038681
Lab Number : 06061077
Unique Number : 10832459
Test Package : IND 2

Recieved : 16 Jan 2024
Diagnosed : 17 Jan 2024
Diagnostician : Wes Davis

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)

YANFENG - ROMULUS
9800 INKSTER RD
ROMULUS, MI
US 48174
Contact: AARON BLIESNER
aaron.bliesner@yanfeng.com
T:
F: (734)946-0237