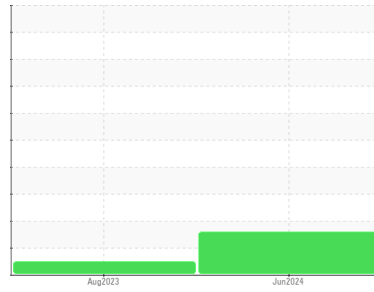




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

Bronx Zoo

Machine Id

ZOO CENTER SMALL UNIT

Component

Hydraulic System

Fluid

PHILLIPS 66 Powerflow NZ AW46 (10 GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. 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	PH0003489	PH0000355	---
Sample Date	Client Info	06 Jun 2024	03 Aug 2023	---
Machine Age	mths Client Info	0	0	---
Oil Age	mths Client Info	18	0	---
Oil Changed	Client Info	Filtered	N/A	---
Sample Status		ABNORMAL	NORMAL	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	0	1	---
Chromium	ppm ASTM D5185m >20	0	0	---
Nickel	ppm ASTM D5185m >20	0	<1	---
Titanium	ppm ASTM D5185m	0	0	---
Silver	ppm ASTM D5185m	<1	1	---
Aluminum	ppm ASTM D5185m >20	0	0	---
Lead	ppm ASTM D5185m >20	<1	1	---
Copper	ppm ASTM D5185m >20	11	<1	---
Tin	ppm ASTM D5185m >20	<1	0	---
Vanadium	ppm ASTM D5185m	0	0	---
Cadmium	ppm ASTM D5185m	<1	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	---
Barium	ppm ASTM D5185m	<1	0	---
Molybdenum	ppm ASTM D5185m	0	0	---
Manganese	ppm ASTM D5185m	<1	0	---
Magnesium	ppm ASTM D5185m	1	0	---
Calcium	ppm ASTM D5185m	39	42	---
Phosphorus	ppm ASTM D5185m	204	157	---
Zinc	ppm ASTM D5185m	215	137	---
Sulfur	ppm ASTM D5185m	1869	1958	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	1	0	---
Sodium	ppm ASTM D5185m	2	0	---
Potassium	ppm ASTM D5185m >20	2	<1	---

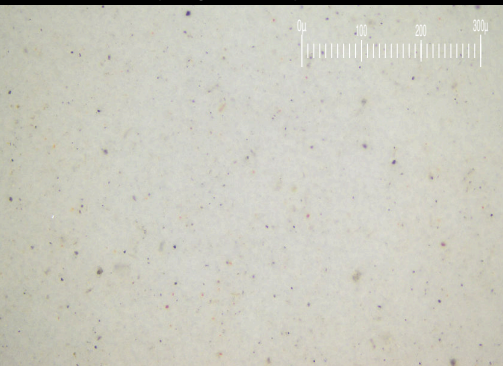
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 89353	2202	---
Particles >6µm	ASTM D7647 >2500	▲ 27088	221	---
Particles >14µm	ASTM D7647 >320	▲ 381	25	---
Particles >21µm	ASTM D7647 >80	35	9	---
Particles >38µm	ASTM D7647 >20	1	0	---
Particles >71µm	ASTM D7647 >4	0	0	---
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 24/22/16	18/15/12	---

FLUID DEGRADATION

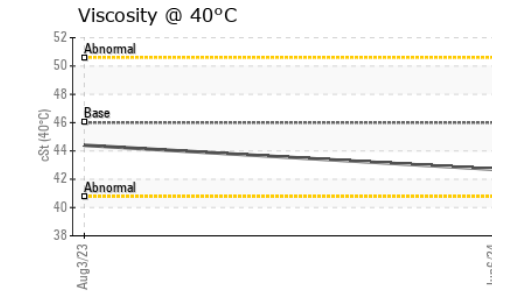
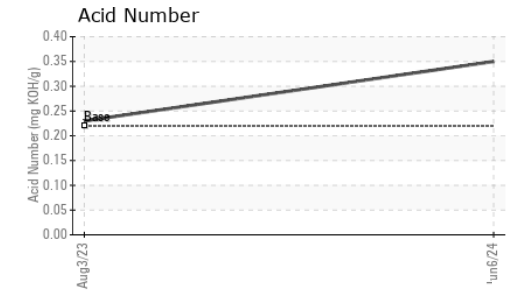
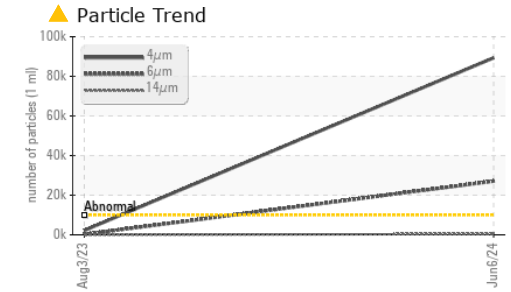
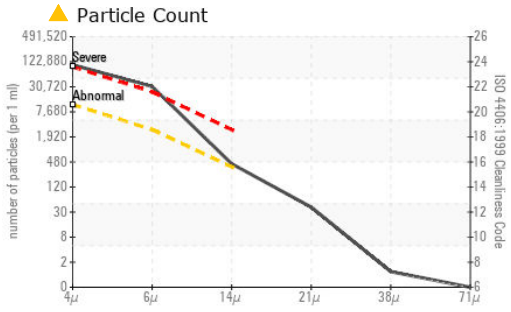
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.22	0.35	0.23	---

Particle Filter (Magn: 200 x)





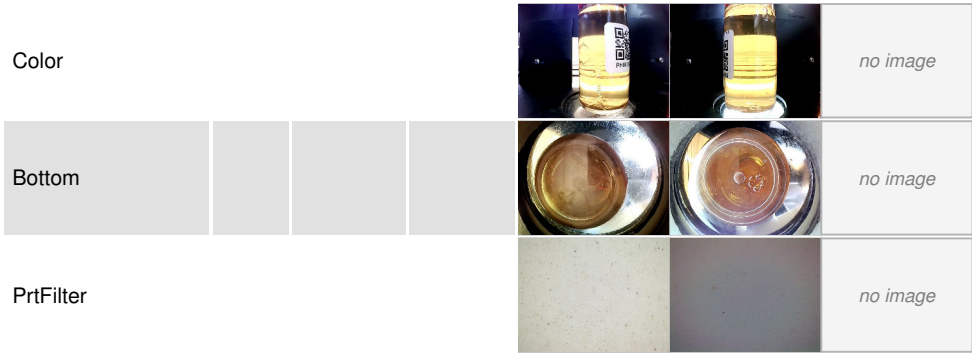
OIL ANALYSIS REPORT



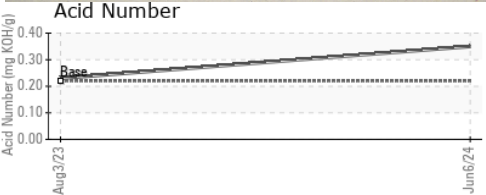
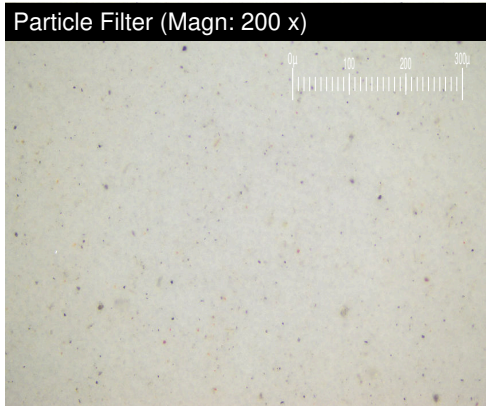
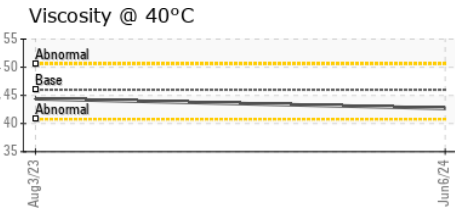
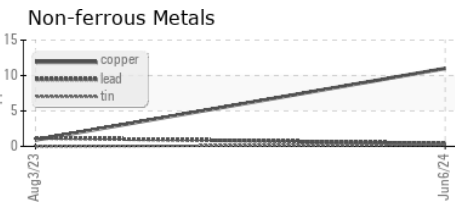
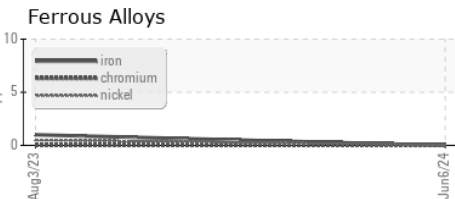
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	42.7	44.4	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH0003489
Lab Number : 06204563
Unique Number : 11072024
Test Package : PLANT (Additional Tests: PrtFilter)

PHI PROGRESSIVE HYDRAULICS INC
 22 AUDREY PLACE
 FAIRFIELD, NJ
 US 07004
 Contact: CUSTOMER SERVICE
 CUSTOMERSERVICE@PHIONLINE.COM

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: