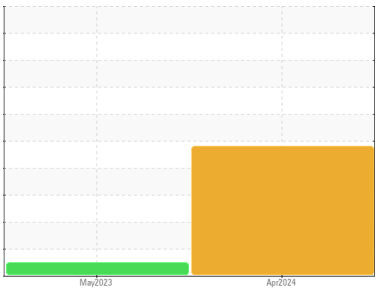
PROBLEM SUMMARY

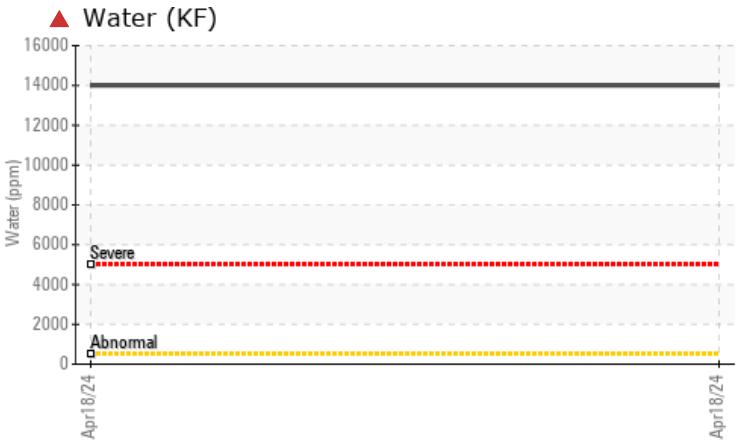
Sample Rating Trend



WATER

Area
STORE 728
Machine Id
[STORE 728] 728-OMNI
Component
Hydraulic Power Pack
Fluid
SAFETY-KLEEN PERFORMANCE PLUS HYD. AW32 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	NORMAL	---
Water	%	ASTM D6304	>0.05	▲ **1.40**	---	---
ppm Water	ppm	ASTM D6304	>500	▲ **14000**	---	---
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	---

Customer Id: MISDES
Sample No.: WC0933746
Lab Number: 06160313
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

NORMAL

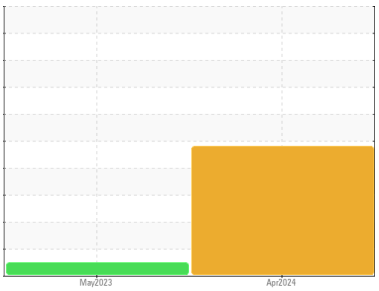
02 May 2023 Diag: Don Baldridge

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.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



WATER

Area
STORE 728
Machine Id
[STORE 728] 728-OMNI
Component
Hydraulic Power Pack
Fluid
SAFETY-KLEEN PERFORMANCE PLUS HYD. AW32 (--- GAL)

DIAGNOSIS

▲ Recommendation
Oil and filter change at the time of sampling has been noted. 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.

Wear
All component wear rates are normal.

▲ Contamination
Appearance is milky. There is a high concentration of water present in the oil. There is a moderate amount of visible silt present in the sample.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0933746**	WC0706613	---
Sample Date		Client Info		**18 Apr 2024**	02 May 2023	---
Machine Age	yrs	Client Info		**4**	0	---
Oil Age	yrs	Client Info		**1**	0	---
Oil Changed		Client Info		**Changed**	N/A	---
Sample Status				**SEVERE**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**7**	0	---
Chromium	ppm	ASTM D5185m	>20	**0**	0	---
Nickel	ppm	ASTM D5185m	>20	**0**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	---
Lead	ppm	ASTM D5185m	>20	**0**	0	---
Copper	ppm	ASTM D5185m	>20	**8**	<1	---
Tin	ppm	ASTM D5185m	>20	**<1**	0	---
Vanadium	ppm	ASTM D5185m		**0**	<1	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	11	**8**	0	---
Barium	ppm	ASTM D5185m	0.0	**0**	0	---
Molybdenum	ppm	ASTM D5185m	1.2	**6**	0	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m	0.0	**26**	0	---
Calcium	ppm	ASTM D5185m	35	**100**	0	---
Phosphorus	ppm	ASTM D5185m	324	**370**	292	---
Zinc	ppm	ASTM D5185m	400	**430**	382	---
Sulfur	ppm	ASTM D5185m	1528	**1269**	540	---

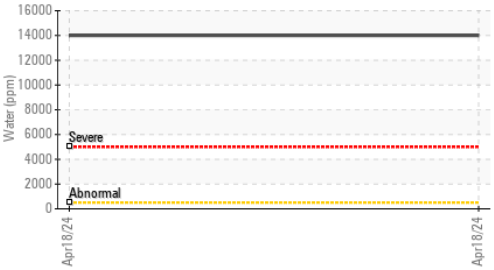
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	0	---
Sodium	ppm	ASTM D5185m		**1**	0	---
Potassium	ppm	ASTM D5185m	>20	**<1**	0	---
Water	%	ASTM D6304	>0.05	▲ **1.40**	---	---
ppm Water	ppm	ASTM D6304	>500	▲ **14000**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	686	---
Particles >6µm		ASTM D7647	>1300	**---**	152	---
Particles >14µm		ASTM D7647	>160	**---**	17	---
Particles >21µm		ASTM D7647	>40	**---**	5	---
Particles >38µm		ASTM D7647	>10	**---**	1	---
Particles >71µm		ASTM D7647	>3	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	17/14/11	---

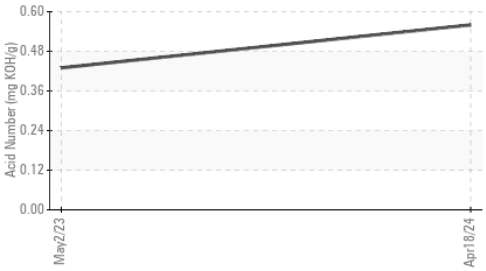
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.56**	0.43	---

OIL ANALYSIS REPORT

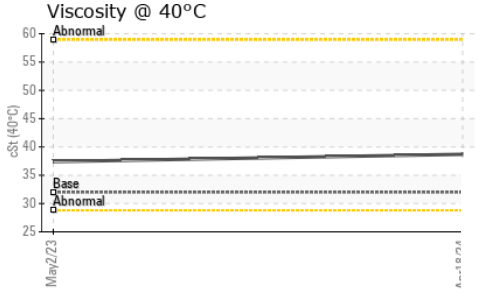
Water (KF)



Acid Number

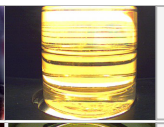
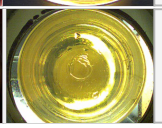


Viscosity @ 40°C



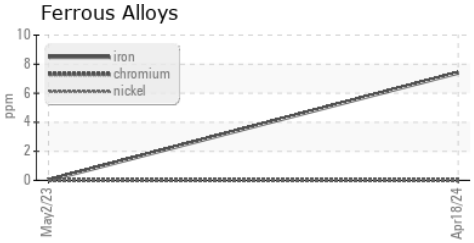
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	● **MILKY**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.0	**38.7**	37.4	---

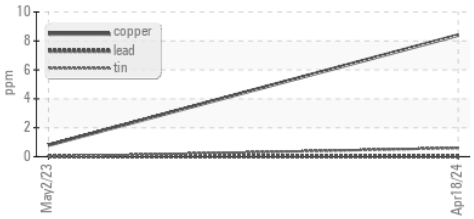
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

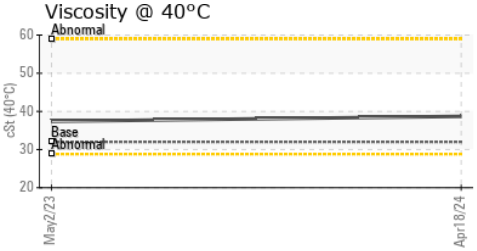
Ferrous Alloys



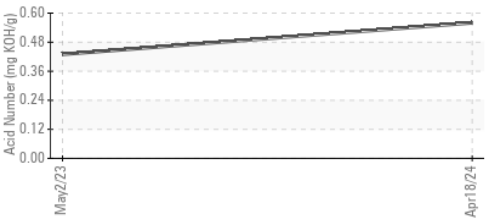
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0933746
Lab Number : 06160313
Unique Number : 10995736
Test Package : PLANT

Received : 25 Apr 2024
Tested : 30 Apr 2024
Diagnosed : 30 Apr 2024 - Jonathan Hester

MISTER CAR WASH - IOWA REGION
3405 WILLIAMS BLVD SW
CEDAR RAPIDS, IA
US 52404
Contact: COLE HUNTER
chunter@mistercarwash.com
T:
F:

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)