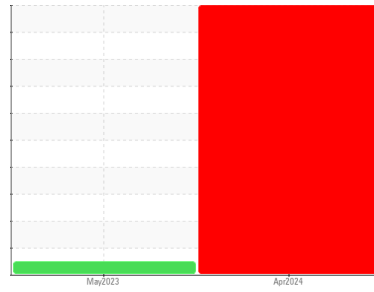




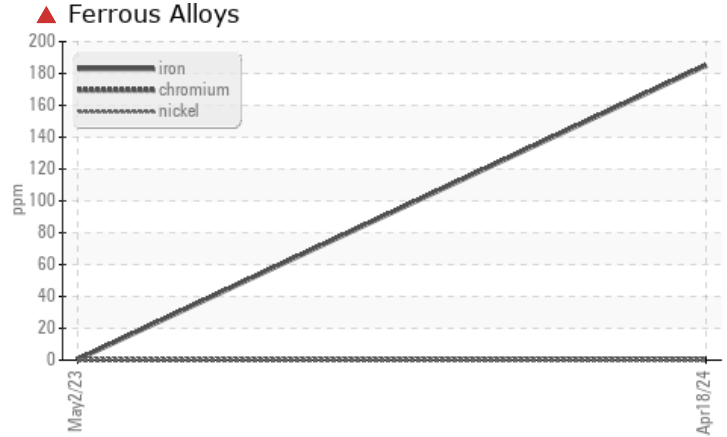
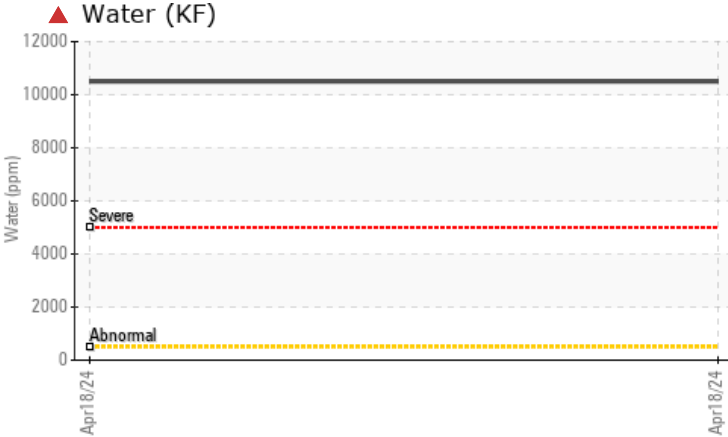
# PROBLEM SUMMARY

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

Sample Rating Trend



## 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	---
Iron	ppm	ASTM D5185m	>20	▲ 185	<1	---
Water	%	ASTM D6304	>0.05	▲ 1.05	---	---
ppm Water	ppm	ASTM D6304	>500	▲ 10500	---	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG	---

Customer Id: MISDES  
 Sample No.: WC0933745  
 Lab Number: 06160312  
 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](mailto:jhester@wearcheckusa.com)

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

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.

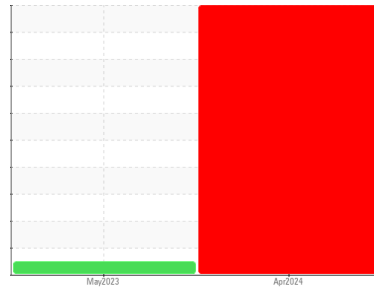
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

**STORE 728**

Machine Id

**[STORE 728] 728-GRILL/ROCKER**

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

The iron level is severe.

### ▲ 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		<b>WC0933745</b>	WC0706612	---
Sample Date	Client Info		<b>18 Apr 2024</b>	02 May 2023	---
Machine Age	yrs	Client Info	<b>4</b>	0	---
Oil Age	yrs	Client Info	<b>1</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	N/A	---
Sample Status			<b>SEVERE</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>▲ 185</b>	<1	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >20	<b>6</b>	0	---
Tin	ppm	ASTM D5185m >20	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 11	<b>0</b>	0	---
Barium	ppm	ASTM D5185m 0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 1.2	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m	<b>2</b>	<1	---
Magnesium	ppm	ASTM D5185m 0.0	<b>0</b>	0	---
Calcium	ppm	ASTM D5185m 35	<b>28</b>	3	---
Phosphorus	ppm	ASTM D5185m 324	<b>335</b>	304	---
Zinc	ppm	ASTM D5185m 400	<b>394</b>	394	---
Sulfur	ppm	ASTM D5185m 1528	<b>1286</b>	568	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	0	---
Sodium	ppm	ASTM D5185m	<b>2</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Water	%	ASTM D6304 >0.05	<b>▲ 1.05</b>	---	---
ppm Water	ppm	ASTM D6304 >500	<b>▲ 10500</b>	---	---

## FLUID CLEANLINESS

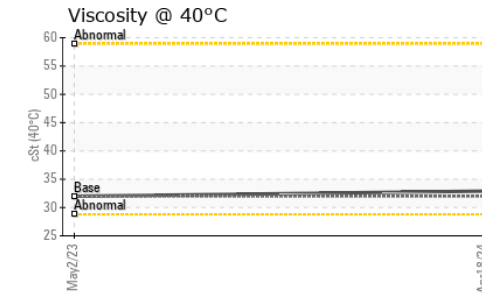
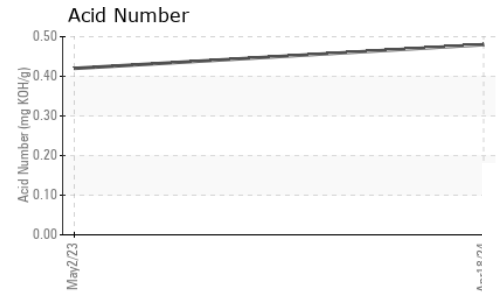
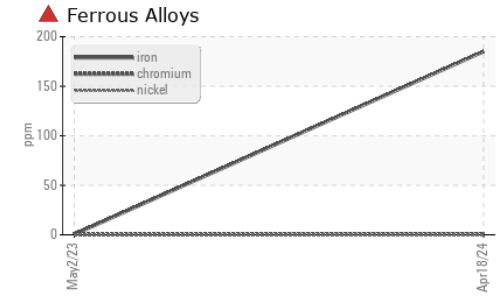
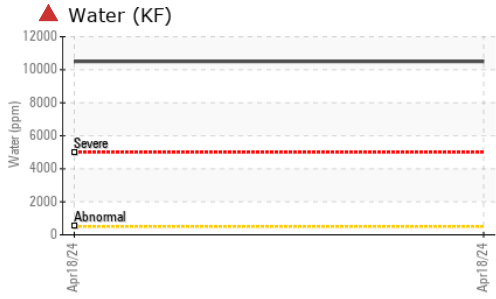
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	2443	---
Particles >6µm	ASTM D7647	>1300	---	254	---
Particles >14µm	ASTM D7647	>160	---	10	---
Particles >21µm	ASTM D7647	>40	---	3	---
Particles >38µm	ASTM D7647	>10	---	0	---
Particles >71µm	ASTM D7647	>3	---	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	18/15/10	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.48</b>	0.42	---



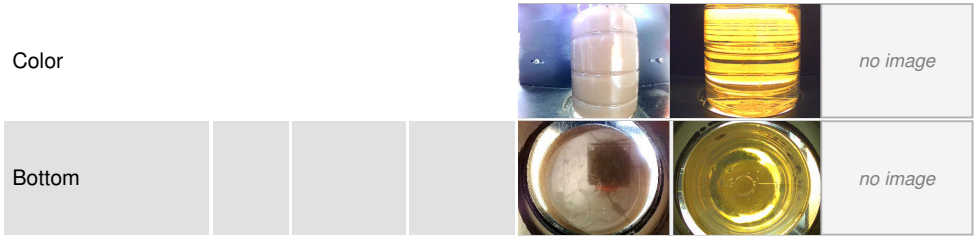
# OIL ANALYSIS REPORT



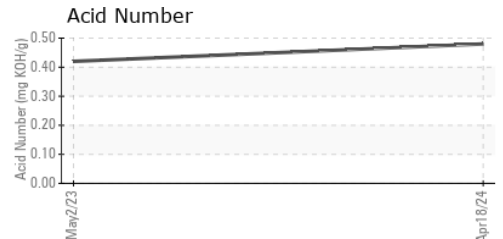
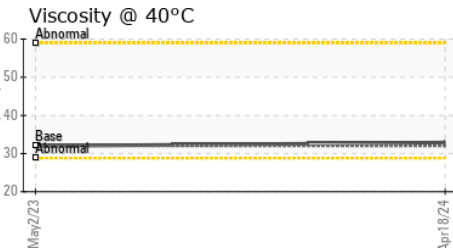
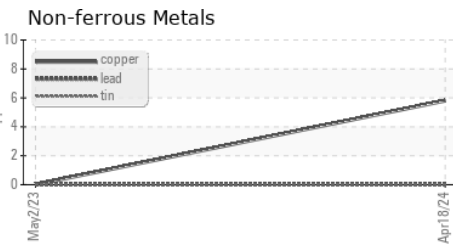
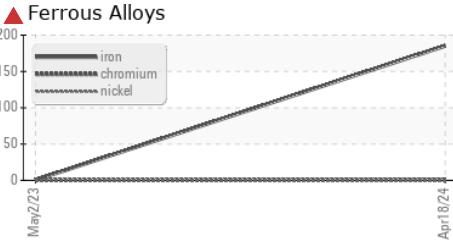
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	▲ MODER	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	● MILKY	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	▲ 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	32.0	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0933745  
**Lab Number** : 06160312  
**Unique Number** : 10995735  
**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

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)