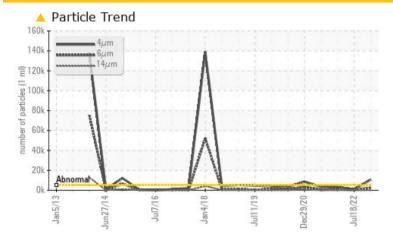


## **PROBLEM SUMMARY**

## Area [603778808 SR] Machine Id K REFINER 6 (S/N 20061424) Component

Hydraulic System Fluid AW HYDRAULIC OIL ISO 68 (--- GAL)

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Sample Rating Trend	ISO
	<b></b>
an2013 Jun2014 Jut2016 Jan2018 Jut2019 Dec2020 Jut2022	

PROBLEMATIC TEST RESULTS							
Sample Status			ABNORMAL	NORMAL	NORMAL		
Particles >4µm	ASTM D7647	>5000	<u> </u>	918	3394		
Particles >6µm	ASTM D7647	>1300	<u> </u>	211	971		
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<u> </u>	17/15/11	19/17/13		

Customer Id: MARSCHI Sample No.: WC0605546 Lab Number: 05901252 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 <u>dougb@wearcheckusa.com</u>

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

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

### 18 Jul 2022 Diag: Don Baldridge



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



#### 17 Dec 2021 Diag: Angela Borella



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





## 13 Jun 2021 Diag: Don Baldridge

#### NORMAL



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





## **OIL ANALYSIS REPORT**

## Area [603778808 SR] Machine Id K REFINER 6 (S/N 20061424)

Component Hydraulic System Fluid

AW HYDRAULIC OIL ISO 68 (--- GAL)

## DIAGNOSIS

## A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## Wear

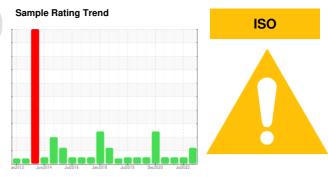
All component wear rates are normal.

## Contamination

There is a high 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 INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0605546	WC0605689	WC0561951
Sample Date		Client Info		23 Jun 2023	18 Jul 2022	17 Dec 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	0	2
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	0
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>20	<1	<1	1
Tin	ppm	ASTM D5185m	>20	0	0	<1
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	1	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	25	<1	<1	0
Calcium	ppm	ASTM D5185m	200	3	0	4
Phosphorus	ppm	ASTM D5185m	300	220	189	375
Zinc	ppm	ASTM D5185m	370	4	0	4
Sulfur	ppm	ASTM D5185m	2500	2286	2096	1223
CONTAMINANTS	6	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2	1	2
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	1	0
FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>A</b> 10594	918	3394
Particles >6µm		ASTM D7647	>1300	<u> </u>	211	971
Particles >14µm		ASTM D7647	>160	151	17	46
Particles >21µm		ASTM D7647	>40	35	3	6
Particles >38µm		ASTM D7647	>10	2	0	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>1</b> 21/18/14	17/15/11	19/17/13
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.78	0.70	0.544

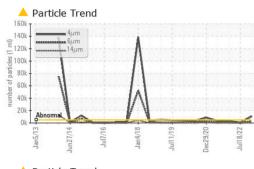


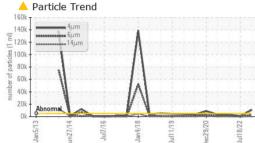
Acid Number

2 !

(B/HOX Bul)

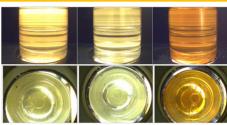
# **OIL ANALYSIS REPORT**



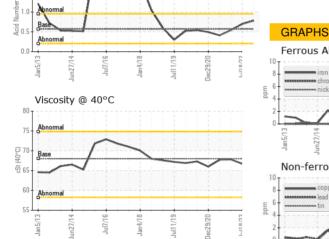


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	70.4	66.7	67.8
SAMPLE IMAGES	6	method	limit/base	current	history1	history2

Color



Bottom



Ferrous Alloys A Particle Count 491 520 122,880 74 30,720 7,68 20 8 4406 per 1 1,920 1999 Clea cles 480 Non-ferrous Metals 6 120 12 Code 30 12Cm Viscosity @ 40°C Acid Number 80 2.2 2.0 1.9 1.1 1.1 75 (0-07) 55 65 60 Ab Pio Q 55 Jul18/22 -Jan4/18 Jul11/19 e1/11/uL Jul7/16 Dec29/20 Dec29/20 118/77 an5/13 an5/1 1/1/J

MARS CHOCOLATE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0605546 Received : 18 Jul 2023 2019 NORTH OAK PARK Lab Number CHICAGO, IL : 05901252 Diagnosed : 19 Jul 2023 : 10562608 Unique Number Diagnostician : Doug Bogart US 60707 Test Package : IND 2 Contact: TONY FIORE Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. tony.fiore@effem.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (773)745-2279

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: TONY FIORE - MARSCHI

F: