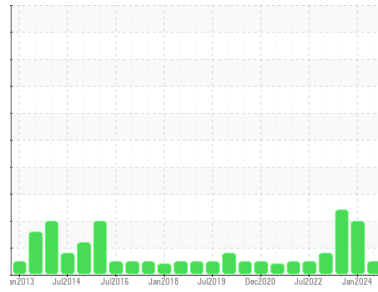




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**[604346965 SR]**  
 Machine Id  
**CRMB REFINER 8 (S/N 20060182)**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 68 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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			<b>WC0854380</b>	WC0854129	WC0562486
Sample Date	Client Info			<b>05 Jul 2024</b>	04 Jan 2024	06 Jul 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

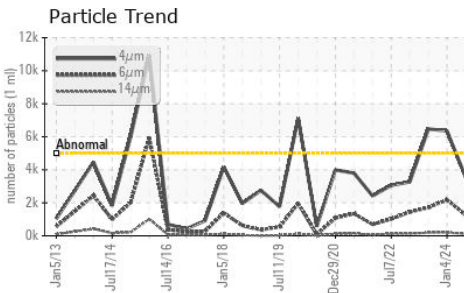
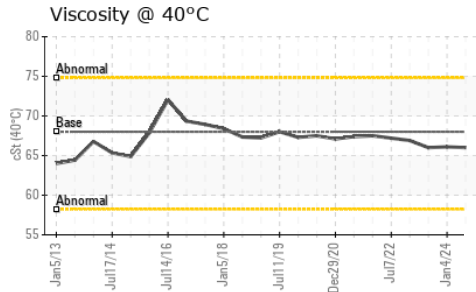
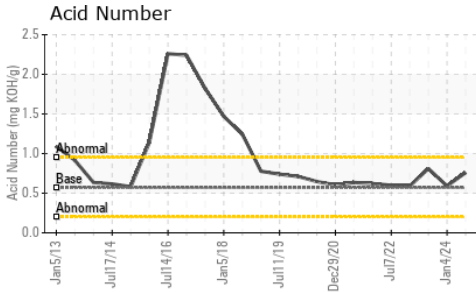
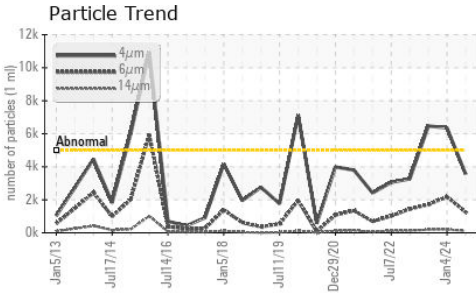
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	25	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m	200	<b>0</b>	6	4
Phosphorus	ppm	ASTM D5185m	300	<b>247</b>	267	220
Zinc	ppm	ASTM D5185m	370	<b>17</b>	50	6
Sulfur	ppm	ASTM D5185m	2500	<b>2228</b>	1780	2323

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>3</b>	2	2
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>3557</b>	6354	6473
Particles >6µm		ASTM D7647	>1300	<b>1257</b>	2181	1712
Particles >14µm		ASTM D7647	>160	<b>107</b>	209	189
Particles >21µm		ASTM D7647	>40	<b>23</b>	71	72
Particles >38µm		ASTM D7647	>10	<b>2</b>	9	11
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/14</b>	20/18/15	20/18/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.76</b>	0.59	0.81

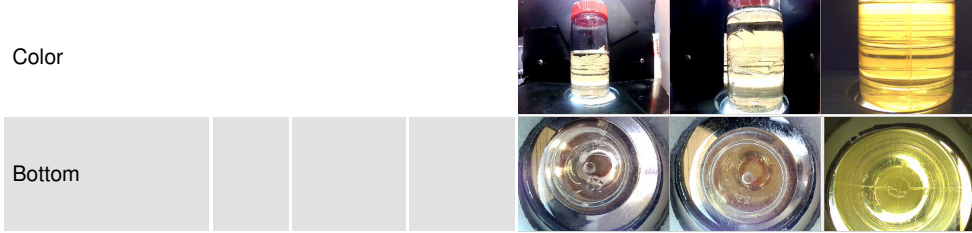
# OIL ANALYSIS REPORT



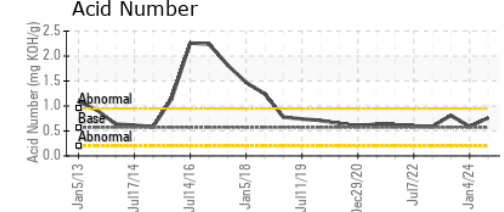
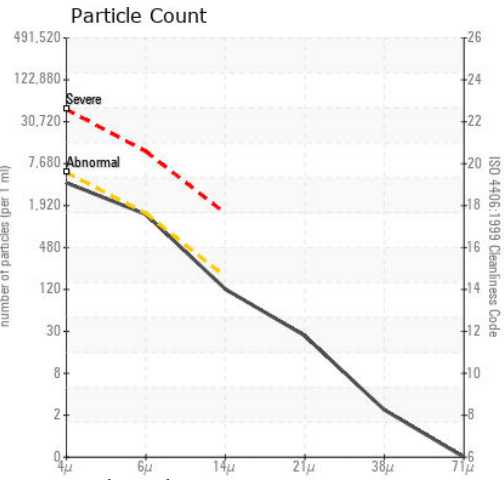
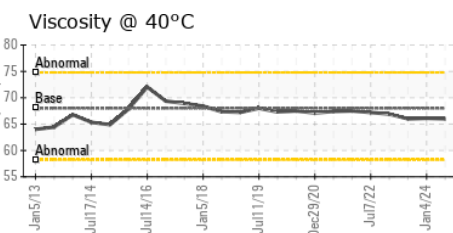
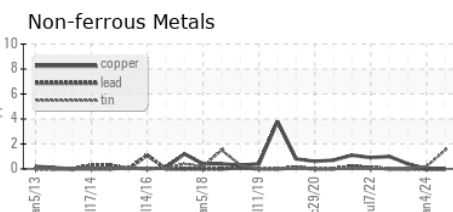
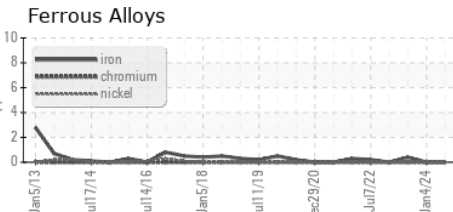
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	66.0	66.1	66.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0854380      **Received** : 16 Jul 2024  
**Lab Number** : 06237731      **Tested** : 17 Jul 2024  
**Unique Number** : 11126565      **Diagnosed** : 18 Jul 2024 - Jonathan Hester  
**Test Package** : IND 2

**MARS CHOCOLATE**  
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 CHICAGO, IL  
 US 60707  
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 tony.fiore@effem.com  
 T: (773)745-2279  
 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)