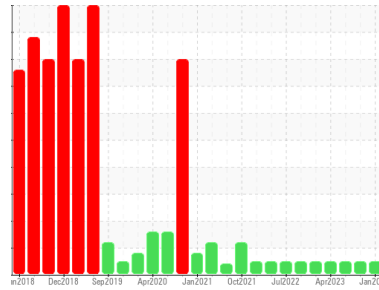




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Wetstarch**  
 Machine Id  
**Franino Gearbox**

Component  
**Case Drain Gearbox**  
 Fluid  
**ROYAL PURPLE SYNERGY 90/220 (5 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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>WC0886153</b>	WC0816896	WC0635858
Sample Date	Client Info		<b>24 Jan 2024</b>	30 Oct 2023	26 Jul 2023
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	<b>9</b>	7	3
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	2
Copper	ppm	ASTM D5185m	>200	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	1	2
Calcium	ppm	ASTM D5185m		<b>0</b>	3	0
Phosphorus	ppm	ASTM D5185m	370	<b>453</b>	468	341
Zinc	ppm	ASTM D5185m		<b>20</b>	14	23
Sulfur	ppm	ASTM D5185m		<b>13144</b>	13983	15143

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	<b>7</b>	6	2
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	2

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>2841</b>	2587	5608
Particles >6µm	ASTM D7647	>5000	<b>849</b>	558	1805
Particles >14µm	ASTM D7647	>640	<b>101</b>	52	303
Particles >21µm	ASTM D7647	>160	<b>17</b>	13	75
Particles >38µm	ASTM D7647	>40	<b>0</b>	3	3
Particles >71µm	ASTM D7647	>10	<b>0</b>	1	1
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>19/17/14</b>	19/16/13	20/18/15

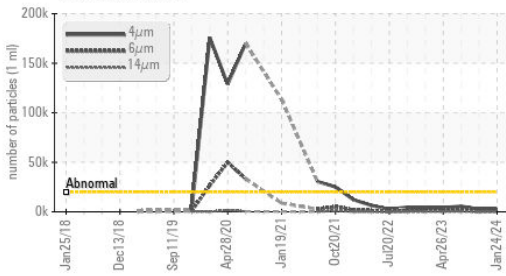
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.33	<b>0.92</b>	0.94	0.98

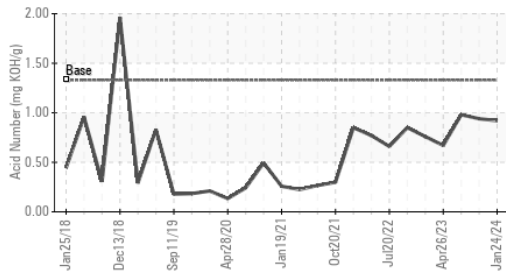


# OIL ANALYSIS REPORT

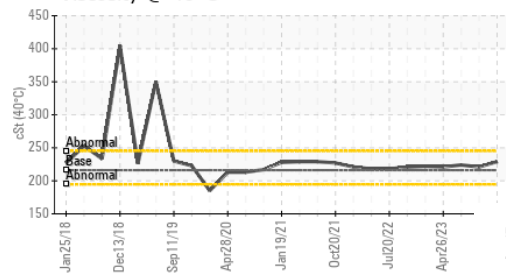
### Particle Trend



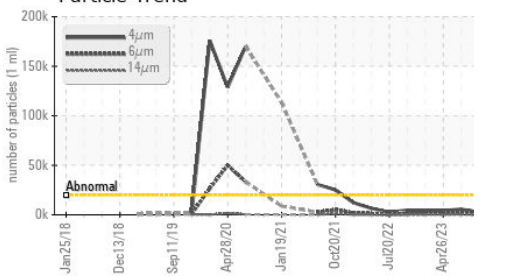
### Acid Number



### Viscosity @ 40°C



### Particle Trend



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	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	216.1	229	221	224

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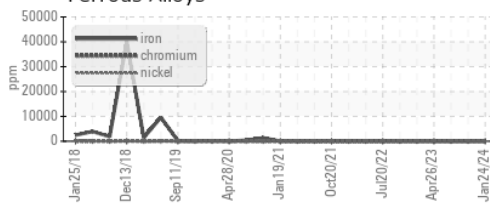
### Color

Bottom

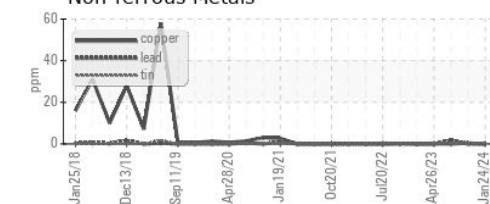


## GRAPHS

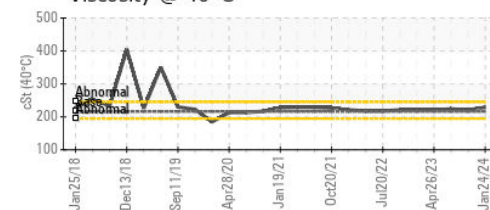
### Ferrous Alloys



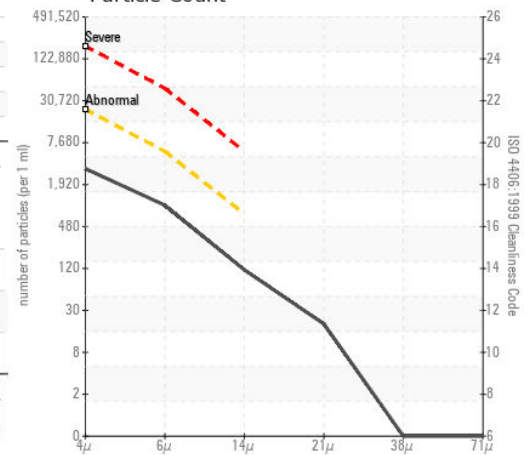
### Non-ferrous Metals



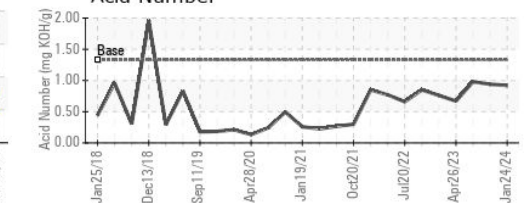
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0886153      Received : 31 Jan 2024  
 Lab Number : 06075750      Diagnosed : 01 Feb 2024  
 Unique Number : 10857841      Diagnostician : Wes Davis  
 Test Package : IND 2 ( Additional Tests: PrtCount )

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)

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