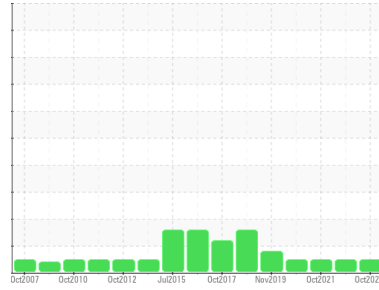




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**RAYTHEON YJR 2**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA SYNDURO SHB ISO 220 (83 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>WC0479179</b>	WC	WC965257
Sample Date	Client Info		<b>16 Oct 2023</b>	13 Nov 2022	28 Oct 2021
Machine Age	yrs	Client Info	<b>31</b>	30	0
Oil Age	yrs	Client Info	<b>4</b>	3	2
Oil Changed	Client Info		<b>N/A</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	4
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	2
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>5</b>	<1	6
Barium	ppm	ASTM D5185(m)	5.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	4
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	5.0	<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m)	5.0	<b>&lt;1</b>	0	4
Phosphorus	ppm	ASTM D5185(m)	100	<b>101</b>	120	387
Zinc	ppm	ASTM D5185(m)	5.0	<b>4</b>	2	26
Sulfur	ppm	ASTM D5185(m)	1900	<b>2018</b>	2044	4298
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	2

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>4</b>	<1	5
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	2
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1

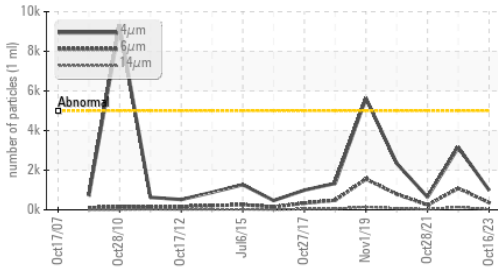
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>988</b>	3151	643
Particles >6µm	ASTM D7647	>1300	<b>362</b>	1089	245
Particles >14µm	ASTM D7647	>160	<b>26</b>	138	21
Particles >21µm	ASTM D7647	>40	<b>10</b>	32	7
Particles >38µm	ASTM D7647	>10	<b>1</b>	4	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/16/12</b>	19/17/14	17/15/12

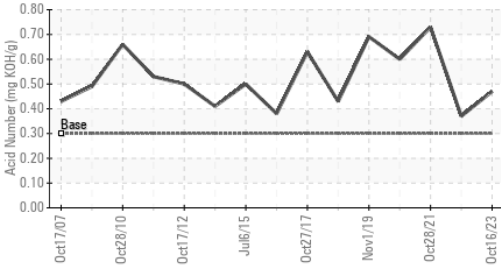
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.3	<b>0.47</b>	0.37	0.73

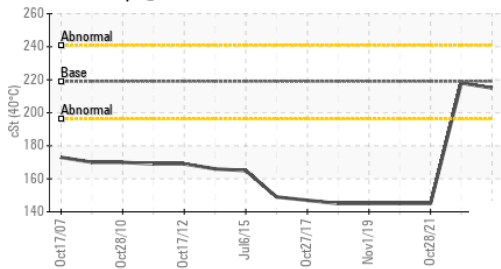
### Particle Trend



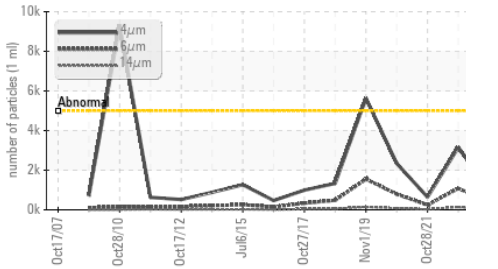
### Acid Number



### Viscosity @ 40°C



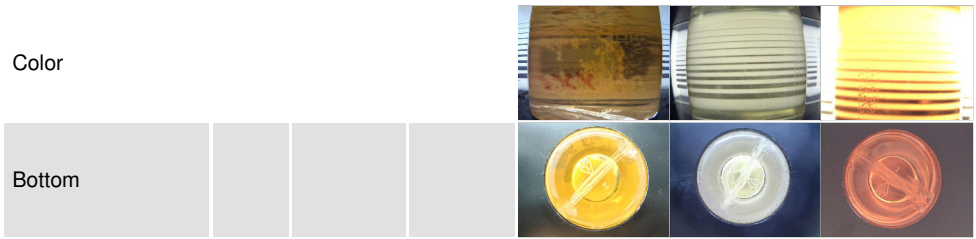
### Particle Trend



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*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

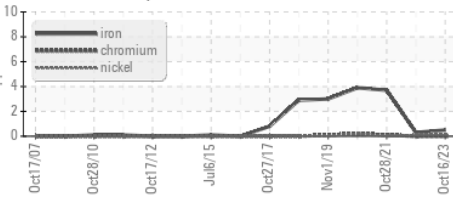
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	219	215	218

SAMPLE IMAGES	method	limit/base	current	history1	history2
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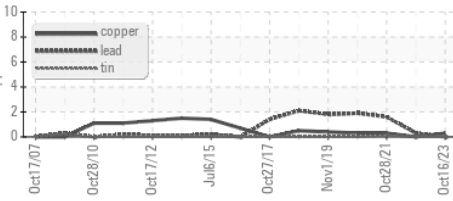


### GRAPHS

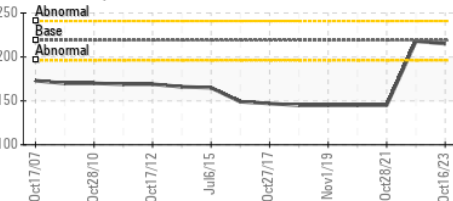
#### Ferrous Alloys



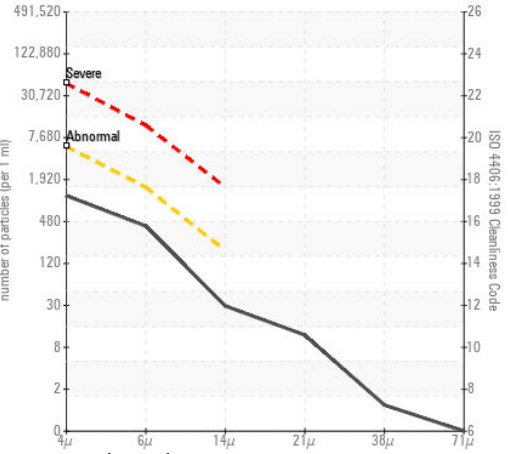
#### Non-ferrous Metals



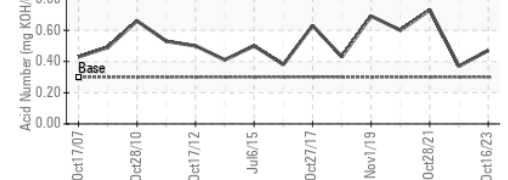
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0479179 **Received** : 17 Oct 2023  
**Lab Number** : 02589609 **Diagnosed** : 18 Oct 2023  
**Unique Number** : 5658675 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**NAV CANADA**  
P.O. BOX 250 STN C  
GOOSE BAY, NL  
CA A0P 1C0  
Contact: C Sintra

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
Validity of results and interpretation are based on the sample and information as supplied.

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