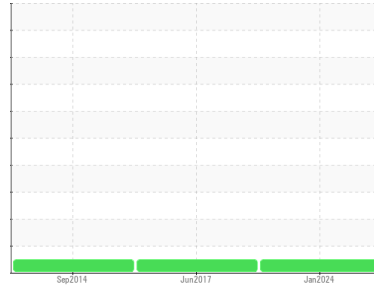




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**23002-MP**

Component  
**Heat Transfer Fluid**

Fluid  
**HEAT TRANSFER FLUID ISO 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please provide more complete information on your next sample. LUBE360 Oil Diagnostics recommends using HTTFL sample kits for heat transfer fluids. Please contact us at 1-800-268-2131 and provide a purchase order for \$245 + HST in order to conduct additional testing (boiling points @ 10%, 50%, and 90%, percent boiling < 335°C, and solids) to determine the suitability for continued use. Please contact your representative for information regarding the proper sampling kits for your service.

### Wear

All component wear rates are normal.

### Contamination

The water content is negligible. There is no indication of any contamination in the component(unconfirmed).

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is acceptable for the time in service (unconfirmed).

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0076383</b>	PC	PC
Sample Date	Client Info		<b>05 Jan 2024</b>	21 Jun 2017	15 Sep 2014
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>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >200	<b>&lt;1</b>	0	<1
Chromium	ppm	ASTM D5185(m) >21	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >21	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m) >21	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >21	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >21	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m) >21	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >21	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >21	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m) >21	<b>0</b>	0	<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) 5	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185(m) 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 5	<b>&lt;1</b>	<1	1
Calcium	ppm	ASTM D5185(m) 5	<b>1</b>	0	<1
Phosphorus	ppm	ASTM D5185(m) 250	<b>75</b>	126	127
Zinc	ppm	ASTM D5185(m) 5	<b>2</b>	<1	<1
Sulfur	ppm	ASTM D5185(m) 3000	<b>501</b>	143	105
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

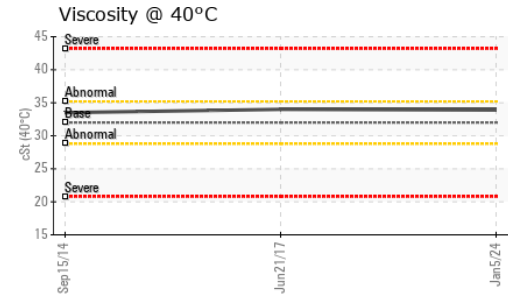
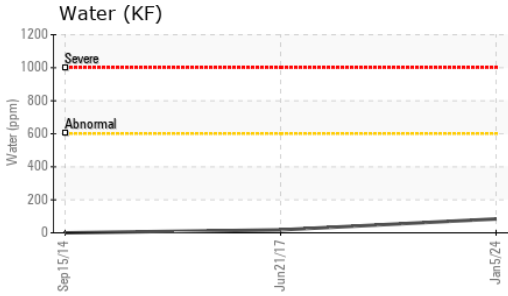
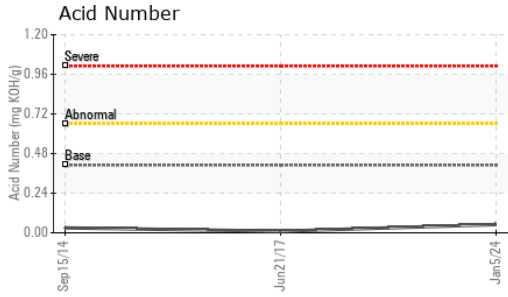
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>2</b>	3	4
Sodium	ppm	ASTM D5185(m) >21	<b>1</b>	<1	0
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	<1
Water	%	ASTM D6304* >0.0601	<b>0.008</b>	0.001	---
ppm Water	ppm	ASTM D6304* >601	<b>84</b>	17.9	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.41	<b>0.05</b>	0.01	0.030

# OIL ANALYSIS REPORT



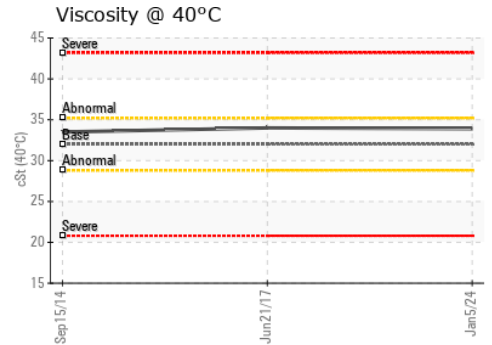
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.0601	.5%	.2%
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	33.9	34.0

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0076383 **Recieved** : 25 Jan 2024  
**Lab Number** : **02611103** **Diagnosed** : 26 Jan 2024  
**Unique Number** : 5720198 **Diagnostician** : Kevin Marson  
**Test Package** : MAR 2 ( Additional Tests: KF, TAN Man )

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Stret  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshhynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

*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.*