



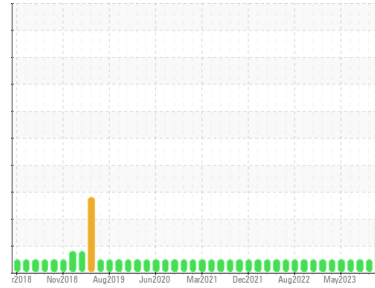
# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Machine Id  
**226**  
Component  
**Rear Transmission (Auto)**  
Fluid  
**CASTROL TRANSYND (--- GAL)**



## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

### Fluid Condition

The AN level is acceptable for this fluid. The fluid is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0866484</b>	WC0866629	WC0730838
Sample Date	Client Info		<b>19 Dec 2023</b>	08 Nov 2023	11 Sep 2023
Machine Age	kms	Client Info	<b>0</b>	0	0
Oil Age	kms	Client Info	<b>38818</b>	29791	20020
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>SEVERE</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >230	<b>63</b>	55	48
Chromium	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >5	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m) >65	<b>9</b>	7	7
Lead	ppm	ASTM D5185(m) >55	<b>2</b>	2	2
Copper	ppm	ASTM D5185(m) >85	<b>10</b>	10	9
Tin	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
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	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 150	<b>75</b>	81	81
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m) 40	<b>123</b>	124	124
Phosphorus	ppm	ASTM D5185(m) 320	<b>263</b>	267	284
Zinc	ppm	ASTM D5185(m) 5	<b>4</b>	4	5
Sulfur	ppm	ASTM D5185(m) 1050	<b>1629</b>	1610	1637
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

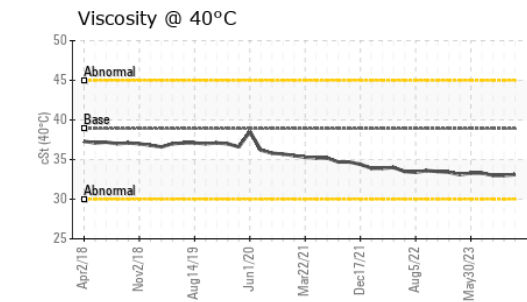
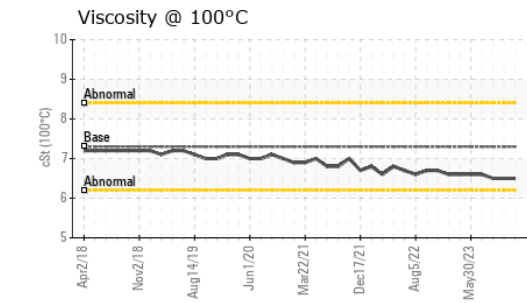
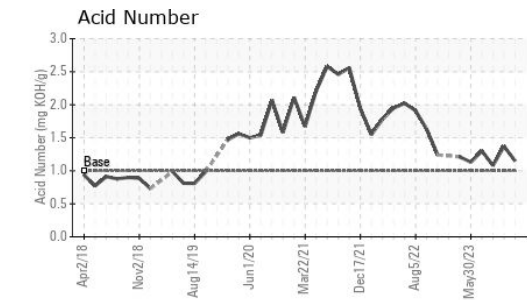
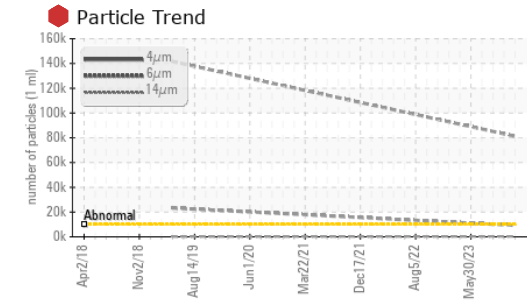
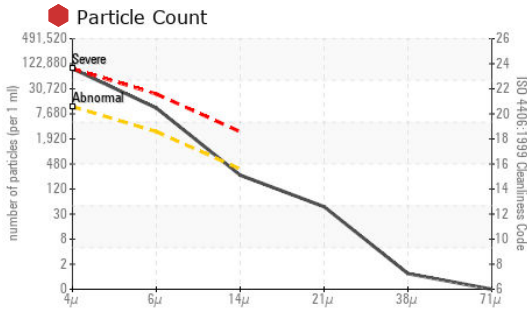
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	<b>5</b>	5	4
Sodium	ppm	ASTM D5185(m)	<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	2

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>81212</b>	---	---
Particles >6µm	ASTM D7647	>2500	<b>9231</b>	---	---
Particles >14µm	ASTM D7647	>320	<b>228</b>	---	---
Particles >21µm	ASTM D7647	>80	<b>40</b>	---	---
Particles >38µm	ASTM D7647	>20	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>24/20/15</b>	---	---



# OIL ANALYSIS REPORT

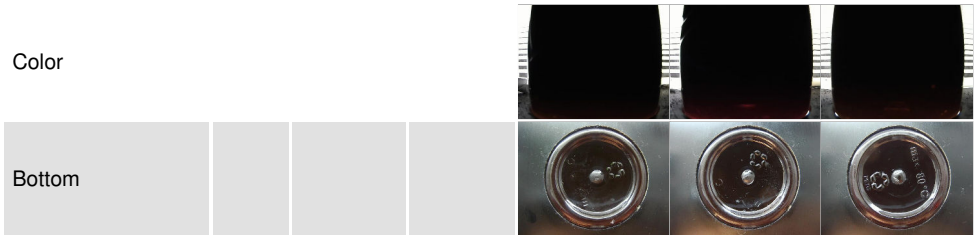


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	<b>1.15</b>	1.37	1.08

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	38.9	<b>33.1</b>	33.0	33.0
Visc @ 100°C	cSt	ASTM D7279(m)	7.3	<b>6.5</b>	6.5	6.5
Viscosity Index (VI)	Scale	ASTM D2270*	168	<b>154</b>	154	154

SAMPLE IMAGES		method	limit/base	current	history1	history2
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**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0866484 **Received** : 27 Dec 2023  
**Lab Number** : **02605333** **Diagnosed** : 28 Dec 2023  
**Unique Number** : 5698418 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PrtCount, VI )

**CITY OF THUNDER BAY**  
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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.