



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**ALLISON 228**  
Component  
**Rear Transmission (Auto)**  
Fluid  
**CASTROL TRANSYND (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0889139</b>	WC0889174	WC0866467
Sample Date		Client Info		<b>07 Feb 2024</b>	21 Dec 2023	03 Nov 2023
Machine Age	kms	Client Info		<b>0</b>	0	0
Oil Age	kms	Client Info		<b>9042</b>	8986	48117
Filter Age	kms	Client Info		<b>9042</b>	8986	48117
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184*	>105	<b>0</b>	---	0
Iron	ppm	ASTM D5185(m)	>230	<b>39</b>	34	60
Chromium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
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>	0	<1
Aluminum	ppm	ASTM D5185(m)	>65	<b>9</b>	8	13
Lead	ppm	ASTM D5185(m)	>55	<b>3</b>	3	6
Copper	ppm	ASTM D5185(m)	>85	<b>5</b>	5	9
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

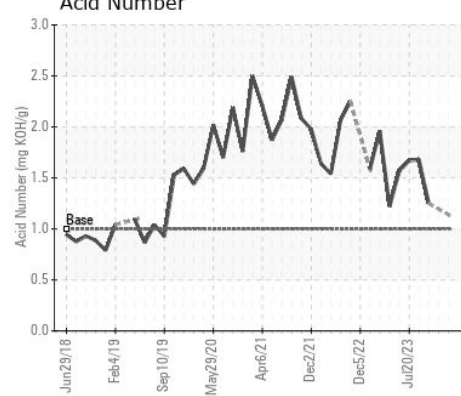
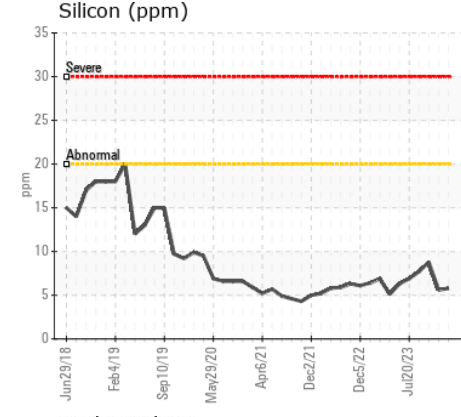
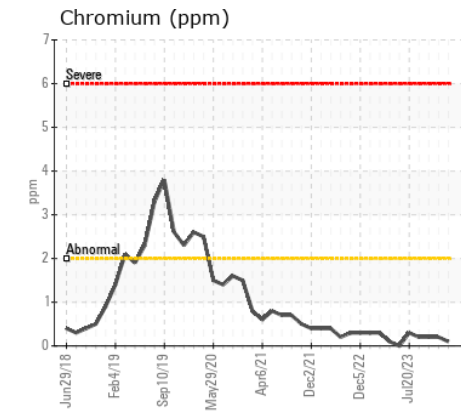
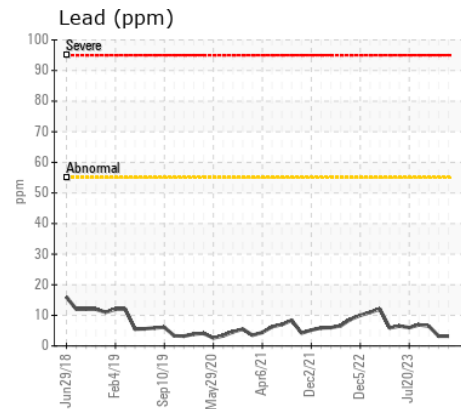
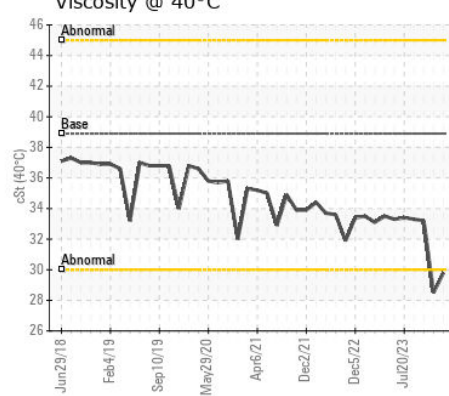
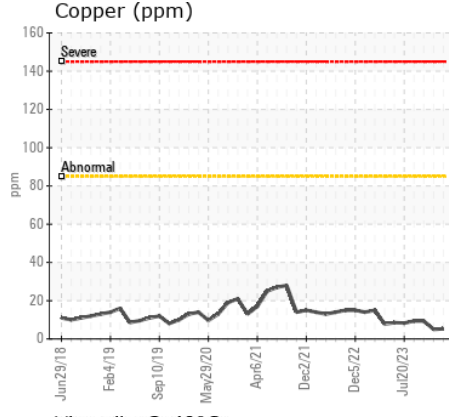
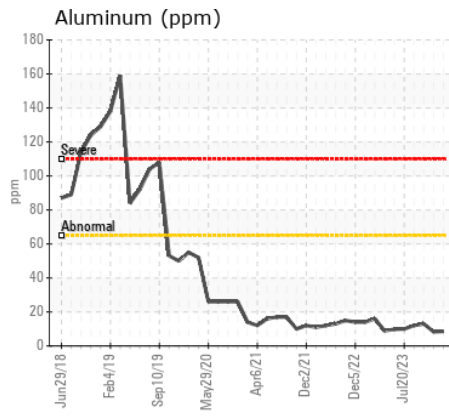
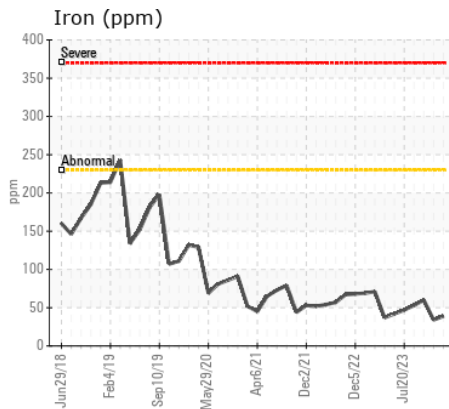
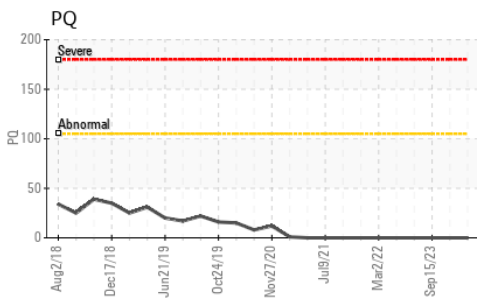
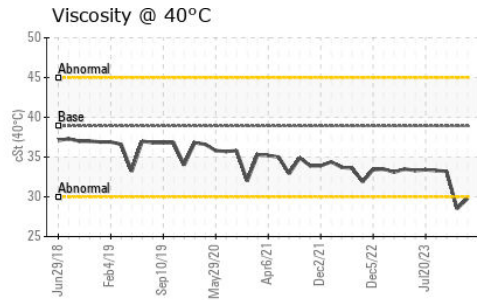
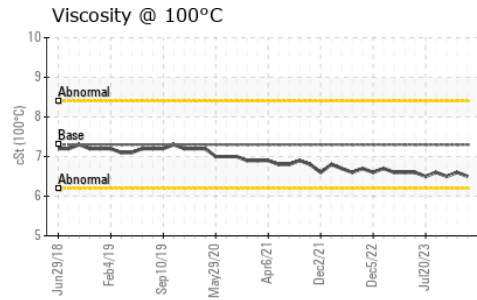
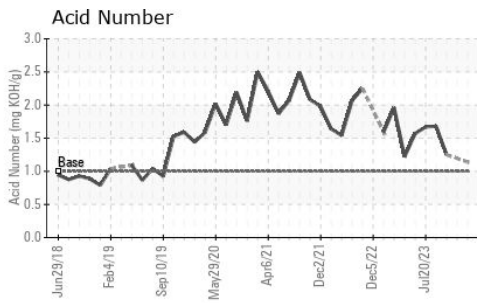
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>20	<b>6</b>	6	9
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
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

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	6
Boron	ppm	ASTM D5185(m)	150	<b>76</b>	77	92
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>1</b>	<1	1
Calcium	ppm	ASTM D5185(m)	40	<b>131</b>	134	129
Phosphorus	ppm	ASTM D5185(m)	320	<b>240</b>	241	273
Zinc	ppm	ASTM D5185(m)	5	<b>4</b>	5	6
Sulfur	ppm	ASTM D5185(m)	1050	<b>1635</b>	1645	1687
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	<b>1.14</b>	---	1.25
Visc @ 40°C	cSt	ASTM D7279(m)	38.9	<b>29.8</b>	28.5	33.2
Visc @ 100°C	cSt	ASTM D7279(m)	7.3	<b>6.5</b>	6.6	6.5
Viscosity Index (VI)	Scale	ASTM D2270*	168	<b>180</b>	199	153



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0889139 **Received** : 20 Feb 2024  
**Lab Number** : 02616709 **Tested** : 21 Feb 2024  
**Unique Number** : 5733819 **Diagnosed** : 21 Feb 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, 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.