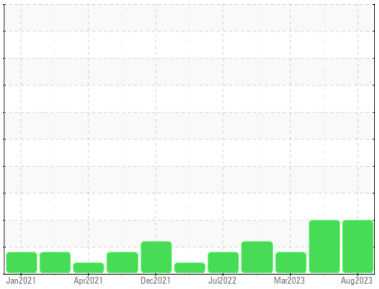
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
NEW FLYER 302 (S/N 6511548133)
Component
Transmission (Auto)
Fluid
PETRO CANADA DuraDrive HD Synthetic 668 (30)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the fluid. The water content is negligible.

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		**PC0069429**	PC0060045	PC0060044
Sample Date		Client Info		**08 Aug 2023**	05 Mar 2023	05 Mar 2023
Machine Age	kms	Client Info		**0**	0	0
Oil Age	kms	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>230	**118**	77	94
Chromium	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**<1**	0	<1
Silver	ppm	ASTM D5185(m)	>5	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>65	**38**	26	31
Lead	ppm	ASTM D5185(m)	>55	**14**	5	6
Copper	ppm	ASTM D5185(m)	>85	**21**	15	19
Tin	ppm	ASTM D5185(m)	>5	**2**	1	1
Antimony	ppm	ASTM D5185(m)		**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	78	**65**	71	72
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**1**	<1	1
Magnesium	ppm	ASTM D5185(m)	0	**3**	1	1
Calcium	ppm	ASTM D5185(m)	113	**104**	104	98
Phosphorus	ppm	ASTM D5185(m)	222	**251**	248	255
Zinc	ppm	ASTM D5185(m)		**8**	5	5
Sulfur	ppm	ASTM D5185(m)	1326	**1263**	1183	1121
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**12**	8	8
Sodium	ppm	ASTM D5185(m)		**11**	7	7
Potassium	ppm	ASTM D5185(m)	>20	**2**	2	2
Water	%	ASTM D6304*	>0.1	**0.039**	0.014	0.013
ppm Water	ppm	ASTM D6304*	>1000	**393.5**	146.4	135.7
Glycol	%	ASTM D7922*		**0.0**	0.0	0.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*		**5.8**	5.6	5.7
Sulfation	Abs/.1mm	ASTM D7415*		**38.7**	38.9	41.4

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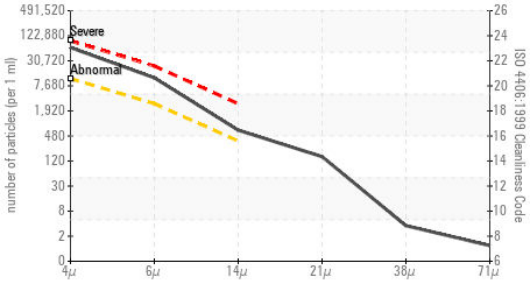
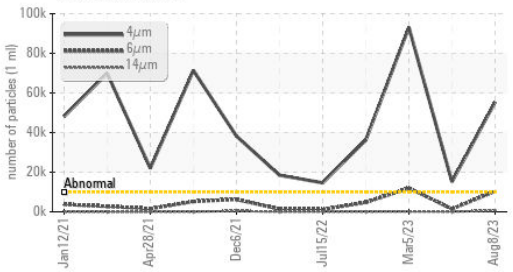
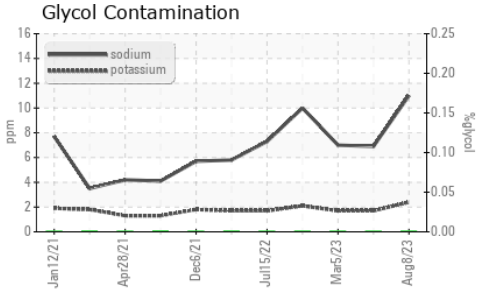
Particle Count



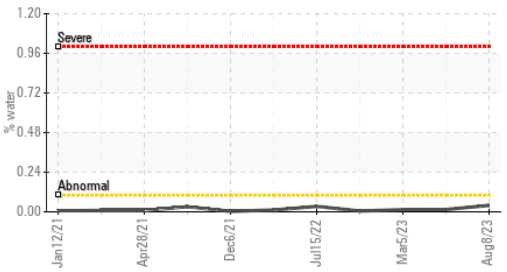
Particle Trend



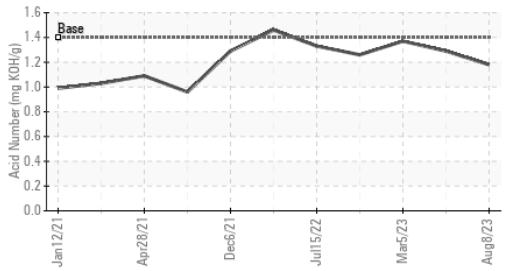
Glycol Contamination



Water



Acid Number



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ **55400**	⬢ 93134	▲ 15158
Particles >6µm	ASTM D7647	>2500	▲ **10409**	▲ 12006	1474
Particles >14µm	ASTM D7647	>320	▲ **582**	123	43
Particles >21µm	ASTM D7647	>80	▲ **135**	21	7
Particles >38µm	ASTM D7647	>20	**3**	0	1
Particles >71µm	ASTM D7647	>4	**1**	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ **23/21/16**	⬢ 24/21/14	▲ 21/18/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		**53.1**	51.2	54.7
Acid Number (AN)	mg KOH/g	ASTM D974*	1.4	**1.18**	1.29	1.37

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	34.8	**34.0**	34.2	34.3
Visc @ 100°C	cSt	ASTM D7279(m)	7.0	**6.6**	6.8	6.7
Viscosity Index (VI)	Scale	ASTM D2270*	167	**153**	161	156

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0069429 **Received** : 09 Aug 2023
Lab Number : 02574936 **Diagnosed** : 10 Aug 2023
Unique Number : 5619987 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: FT-IR, Glycol, KF, KV100, PrtCount, VI)

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.

WINNIPEG TRANSIT
421 OSBORNE STREET
WINNIPEG, MB
CA R3L 2A2
Contact: Jason Lavoie
jlavoie@winnipeg.ca
T: (204)986-4762
F: