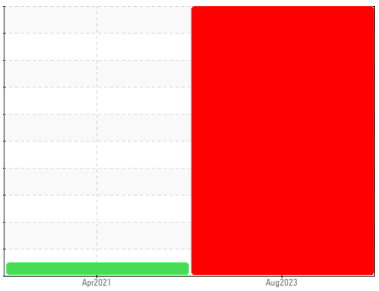
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
136120
Component
Hydraulic System
Fluid
PETRO CANADA TURBOFLO R&O 150 (--- GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

Wear

Lead and tin and antimony ppm levels are severe. PQ levels are abnormal. Copper and iron ppm levels are abnormal. Cylinder or oil pump wear indicated. Bearing wear is indicated. Oil cooler core leaching or motor piston wear is indicated. Pump thrust plate, or bushing wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

Contamination

There is no indication of any contamination in the component(unconfirmed).

Fluid Condition

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0074839**	PC0044367	---
Sample Date		Client Info		**16 Aug 2023**	20 Apr 2021	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**SEVERE**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		▲ **90**	---	---
Iron	ppm	ASTM D5185(m)	>20	▲ **62**	0	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	---
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)		**0**	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	0	---
Lead	ppm	ASTM D5185(m)	>20	⬢ **494**	0	---
Copper	ppm	ASTM D5185(m)	>20	▲ **30**	0	---
Tin	ppm	ASTM D5185(m)	>20	⬢ **51**	0	---
Antimony	ppm	ASTM D5185(m)		⬢ **91**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**0**	<1	---
Barium	ppm	ASTM D5185(m)		**0**	0	---
Molybdenum	ppm	ASTM D5185(m)		**0**	0	---
Manganese	ppm	ASTM D5185(m)		**<1**	0	---
Magnesium	ppm	ASTM D5185(m)		**<1**	0	---
Calcium	ppm	ASTM D5185(m)	0	**2**	<1	---
Phosphorus	ppm	ASTM D5185(m)	4	**14**	6	---
Zinc	ppm	ASTM D5185(m)	0	**22**	2	---
Sulfur	ppm	ASTM D5185(m)		**159**	151	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

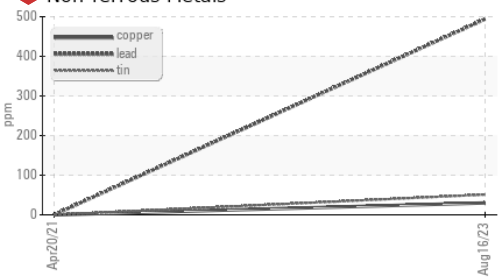
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**2**	<1	---
Sodium	ppm	ASTM D5185(m)		**14**	0	---
Potassium	ppm	ASTM D5185(m)	>20	**2**	0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	---
Nitration	Abs/cm	ASTM D7624*		**1.6**	1.5	---
Sulfation	Abs/.1mm	ASTM D7415*		**12.0**	11.3	---

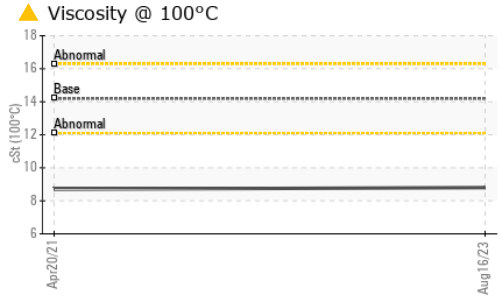
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		**2.5**	2.3	---

OIL ANALYSIS REPORT

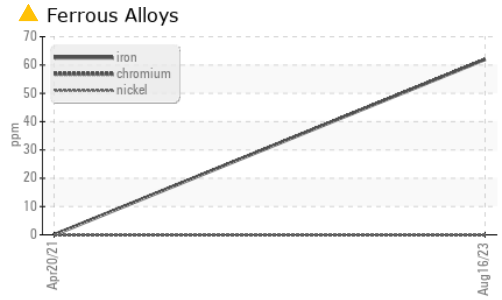
Non-ferrous Metals



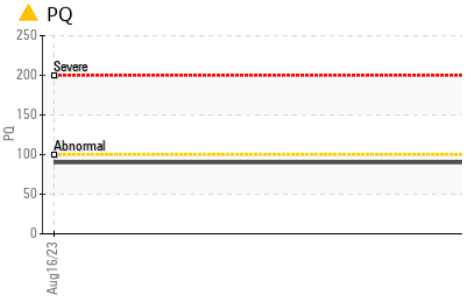
Viscosity @ 100°C



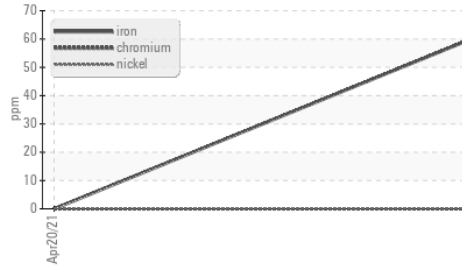
Ferrous Alloys



PQ

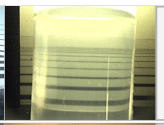


Ferrous Alloys



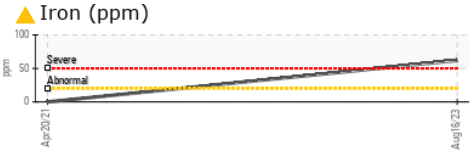
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**VLITE**	NONE	---
Debris	scalar	Visual*	NONE	**NONE**	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	---
Appearance	scalar	Visual*	NORML	**NORML**	NORML	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	---
Emulsified Water	scalar	Visual*	>0.05	**NEG**	NEG	---
Free Water	scalar	Visual*		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	137.1	▲ **65.4**	65.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.19	▲ **8.8**	8.7	---
Viscosity Index (VI)	Scale	ASTM D2270*	101	**107**	105	---

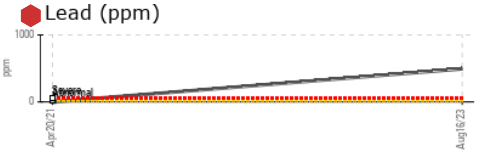
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

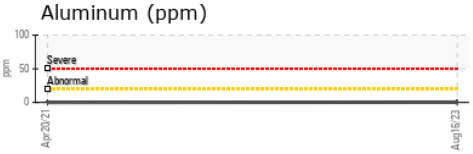
Iron (ppm)



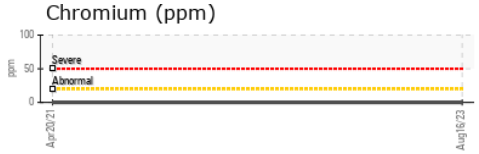
Lead (ppm)



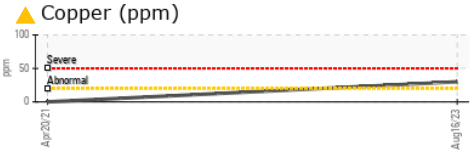
Aluminum (ppm)



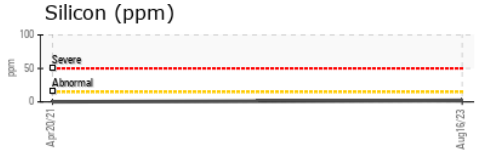
Chromium (ppm)



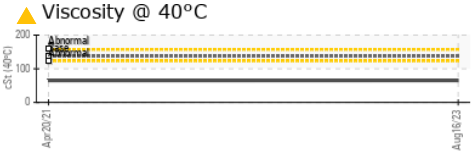
Copper (ppm)



Silicon (ppm)



Viscosity @ 40°C



PQ

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0074839 **Received** : 21 Aug 2023
Lab Number : 02577179 **Diagnosed** : 23 Aug 2023
Unique Number : 5630239 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FT-IR, ICP-NewOil, KV100, PQ, 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.

Dryden Fibre
Box 3001, 1 Duke Street
Dryden, ON
CA P8N 2Z7
Contact: Yvon St. Laurent
yvon.stlaurent@domtar.com
T: (807)223-9838
F: (807)223-9176