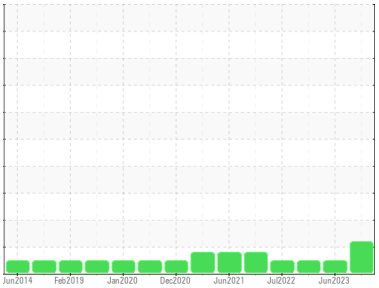
PROBLEM SUMMARY

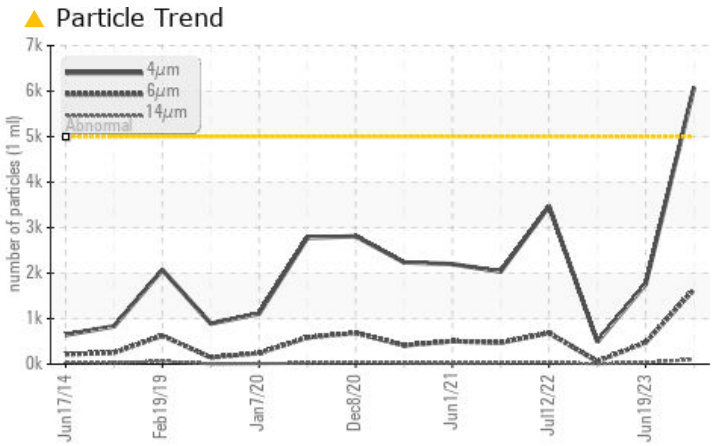
Sample Rating Trend



ISO

Area
BRUCE A/2/71210
Machine Id
2-71210-P1-PM Lo Brg Level
Component
Lower Bearing
Fluid
PETRO CANADA TURBOFLO XL68 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	NORMAL	NORMAL
Particles >4µm		ASTM D7647	>5000	▲ **6085**	1762	491
Particles >6µm		ASTM D7647	>1300	▲ **1645**	476	59
Oil Cleanliness		ISO 4406 (c)	>19/17/15	▲ **20/18/14**	18/16/12	16/13/10

Customer Id: BRUTIV
Sample No.: WC0871682
Lab Number: 02603826
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS

19 Jun 2023 Diag: Kevin Marson

NORMAL

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

29 Nov 2022 Diag: Bill Quesnel

NORMAL

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

12 Jul 2022 Diag: Kevin Marson

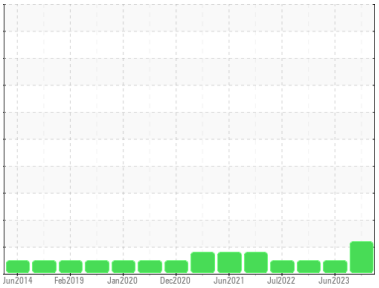
NORMAL

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The Rotating Pressure Vessel Oxidation Test (RPVOT – ASTM D2272) result indicates suitable amounts of anti-oxidant(s) present in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
BRUCE A/2/71210
Machine Id
2-71210-P1-PM Lo Brg Level
Component
Lower Bearing
Fluid
PETRO CANADA TURBOFLO XL68 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear
All component wear rates are normal.

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

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0871682**	WC0801493	WC
Sample Date		Client Info		**30 Nov 2023**	19 Jun 2023	29 Nov 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>10	**0**	0	0
Chromium	ppm	ASTM D5185(m)	>5	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>5	**0**	0	0
Titanium	ppm	ASTM D5185(m)	>5	**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>5	**0**	<1	0
Lead	ppm	ASTM D5185(m)	>5	**<1**	<1	0
Copper	ppm	ASTM D5185(m)	>5	**<1**	<1	0
Tin	ppm	ASTM D5185(m)	>5	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

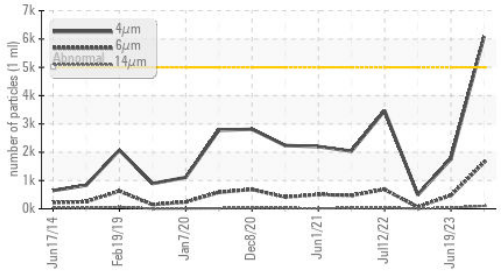
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	0	<1
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**0**	<1	0
Calcium	ppm	ASTM D5185(m)		**0**	<1	0
Phosphorus	ppm	ASTM D5185(m)		**<1**	<1	0
Zinc	ppm	ASTM D5185(m)	0	**<1**	2	<1
Sulfur	ppm	ASTM D5185(m)		**614**	614	633
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>5	**<1**	0	0
Sodium	ppm	ASTM D5185(m)	>5	**0**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	0
Water	%	ASTM D6304*	>0.005	**0.003**	0.001	0.001
ppm Water	ppm	ASTM D6304*	>50	**30**	3.0	2.5

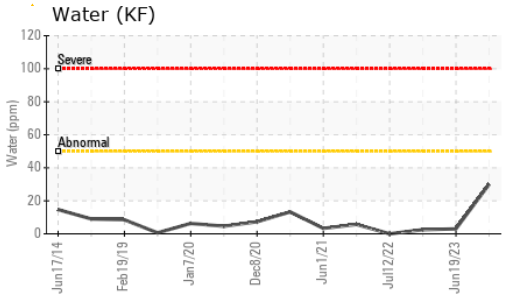
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**6085**	1762	491
Particles >6µm		ASTM D7647	>1300	**1645**	476	59
Particles >14µm		ASTM D7647	>320	**102**	34	9
Particles >21µm		ASTM D7647	>80	**24**	8	4
Particles >38µm		ASTM D7647	>20	**0**	0	1
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/15	**20/18/14**	18/16/12	16/13/10

OIL ANALYSIS REPORT

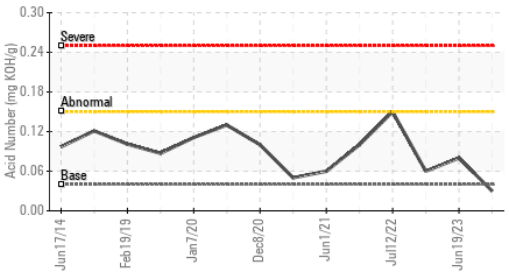
Particle Trend



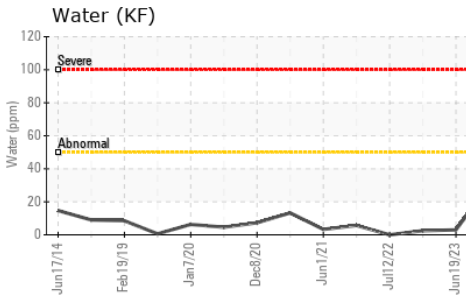
Water (KF)



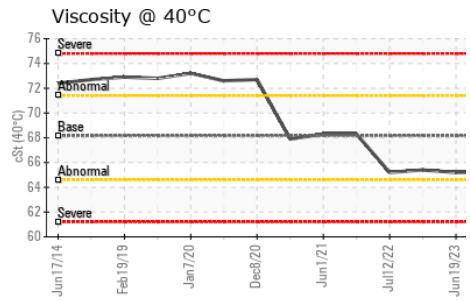
Acid Number



Water (KF)



Viscosity @ 40°C

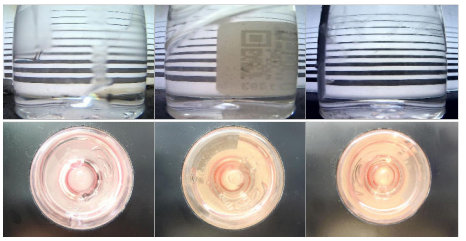


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	**0.03**	0.08	0.06

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	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*	>0.005	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

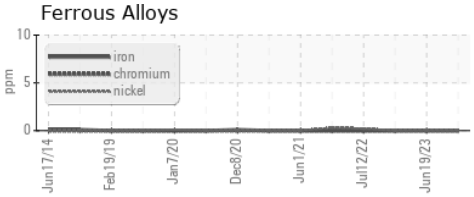
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68.17	**65.2**	65.2	65.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

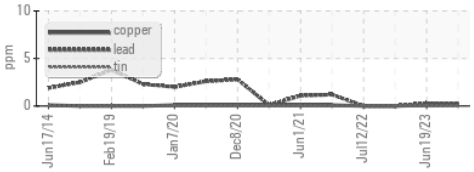


GRAPHS

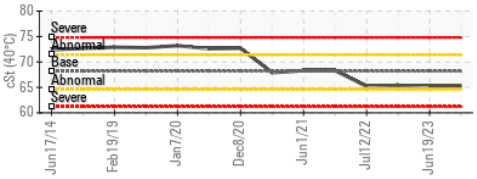
Ferrous Alloys



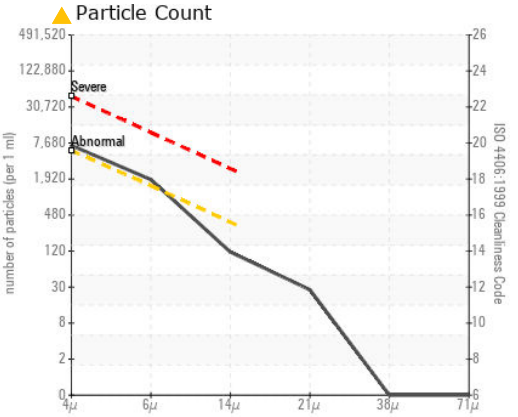
Non-ferrous Metals



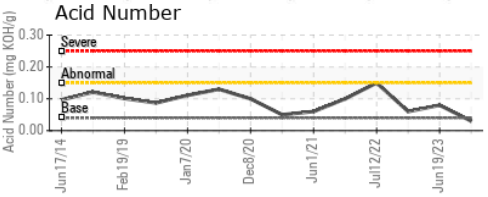
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0871682 **Recieved** : 18 Dec 2023
Lab Number : 02603826 **Diagnosed** : 20 Dec 2023
Unique Number : 5696911 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: TAN Man)

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.

Bruce Power - Bruce A PdM
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Tiverton, ON
CA N0G 2T0
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