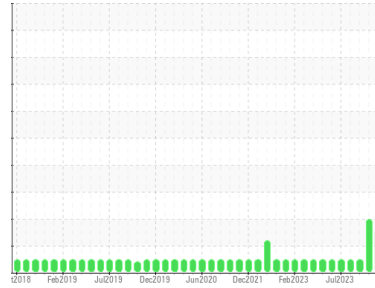


PROBLEM SUMMARY

Sample Rating Trend



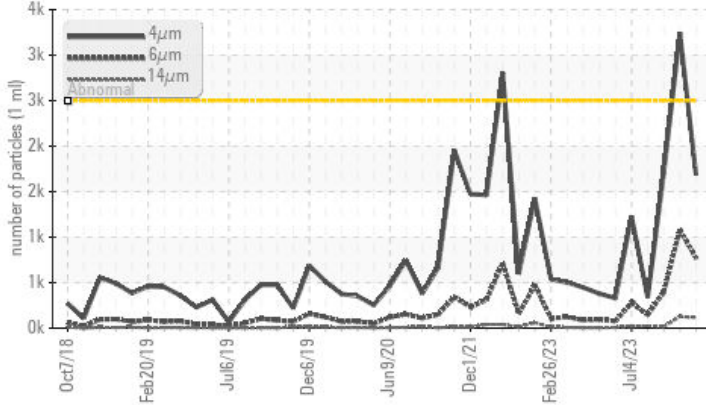
ISO



Area
Main Power Generation
Machine Id
Generator MPG (Stbd) - Lubrication System (S/N Sample Tag XX-80101-S1)
Component
Turbine
Fluid
PETRO CANADA TURBOFLO 32 (8300 LTR)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	NORMAL
Particles >6µm	ASTM D7647	>640	▲ 772	▲ 1080	394
Particles >14µm	ASTM D7647	>80	▲ 116	▲ 127	15
Particles >21µm	ASTM D7647	>20	▲ 30	▲ 35	4
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 18/17/14	▲ 19/17/14	18/16/11

Customer Id: TERHAM
Sample No.: PC
Lab Number: 02589988
Test Package: MAR 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.

HISTORICAL DIAGNOSIS

22 Aug 2023 Diag: Kevin Marson

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Component wear rates appear to be normal (unconfirmed). There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



28 Jul 2023 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. 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



19 Jul 2023 Diag: Kevin Marson

NORMAL

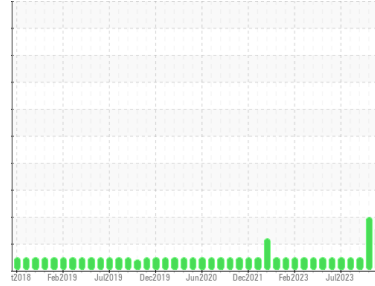


Resample at the next service interval to monitor. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use. this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Component wear rates appear to be normal (unconfirmed). The system cleanliness is acceptable for your target ISO 4406 cleanliness code. 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



Area
Main Power Generation
Machine Id
Generator MPG (Stbd) - Lubrication System (S/N Sample Tag XX-80101-S1)
Component
Turbine
Fluid
PETRO CANADA TURBOFLO 32 (8300 LTR)



DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

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

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			PC	PC0052567	PC
Sample Date	Client Info			28 Sep 2023	22 Aug 2023	28 Jul 2023
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	ATTENTION	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>15	1	1	1
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>10	0	<1	<1
Lead	ppm	ASTM D5185(m)		0	<1	0
Copper	ppm	ASTM D5185(m)	>5	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>5	1	1	2
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

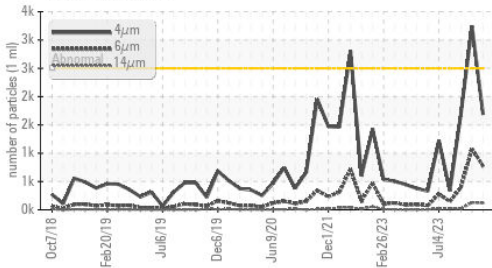
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	0	<1	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	0	<1	<1
Calcium	ppm	ASTM D5185(m)	0	0	<1	<1
Phosphorus	ppm	ASTM D5185(m)	120	259	298	277
Zinc	ppm	ASTM D5185(m)	0.0	<1	2	2
Sulfur	ppm	ASTM D5185(m)	0	607	655	617
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

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

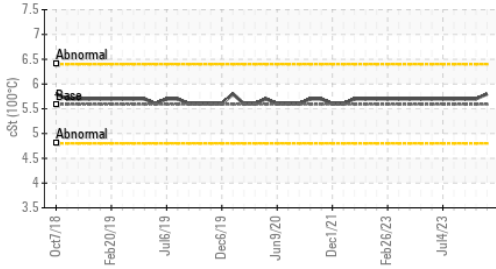
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	1685	▲ 3243	1707
Particles >6µm		ASTM D7647	>640	▲ 772	▲ 1080	394
Particles >14µm		ASTM D7647	>80	▲ 116	▲ 127	15
Particles >21µm		ASTM D7647	>20	▲ 30	▲ 35	4
Particles >38µm		ASTM D7647	>4	1	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 18/17/14	▲ 19/17/14	18/16/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.05	0.12	0.04

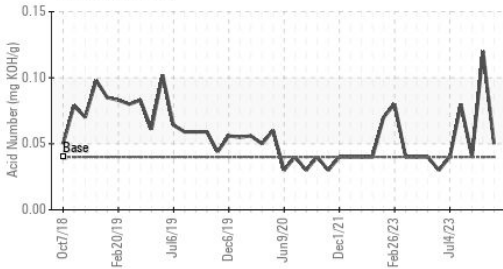
Particle Trend



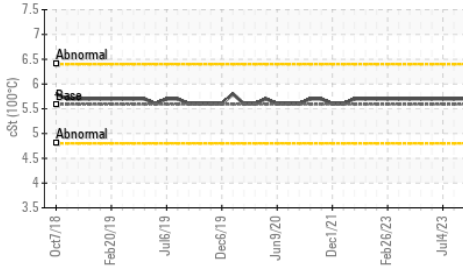
Viscosity @ 100°C



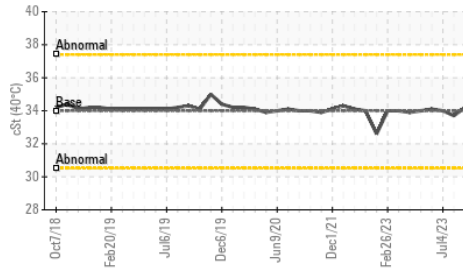
Acid Number



Viscosity @ 100°C



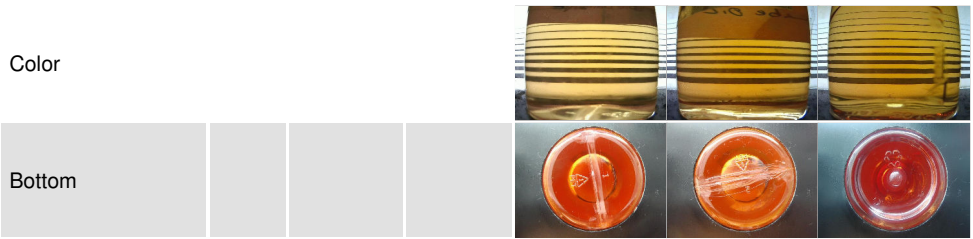
Viscosity @ 40°C



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	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.03	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

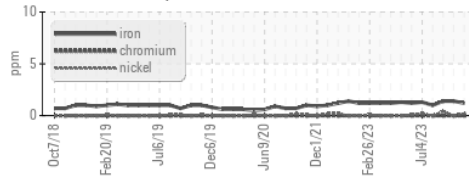
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	34.0	33.9	34.2
Visc @ 100°C	cSt	ASTM D7279(m)	5.8	5.7	5.7
Viscosity Index (VI)	Scale	ASTM D2270*	110	107	105

SAMPLE IMAGES

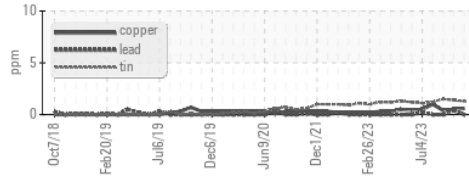


GRAPHS

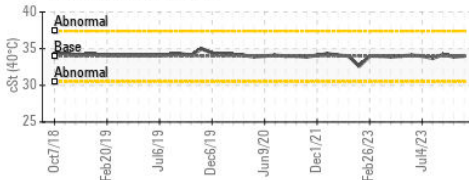
Ferrous Alloys



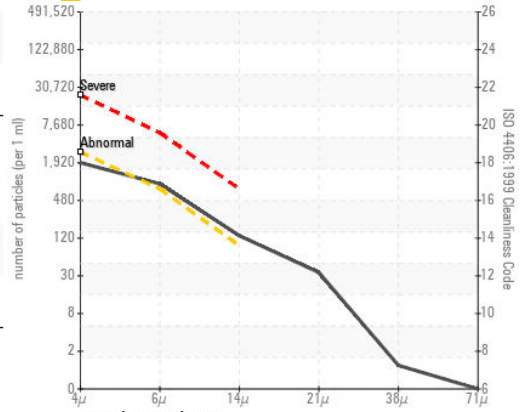
Non-ferrous Metals



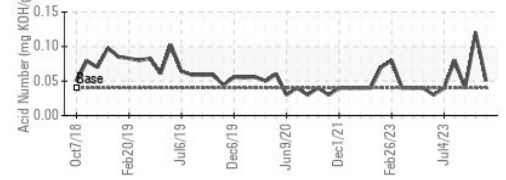
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02589988
Unique Number : 5659054
Test Package : MAR 2 (Additional Tests: KV100, TAN Man, VI)

Received : 18 Oct 2023
Diagnosed : 19 Oct 2023
Diagnostician : Kevin Marson

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.

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