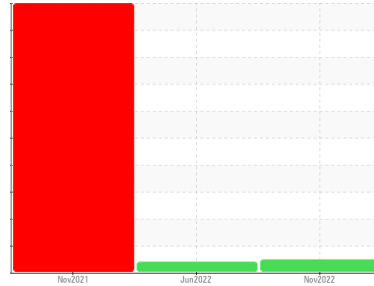




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
WESTINGHOUSE 501D

Component
Turbine

Fluid
PETRO CANADA TURBOFLO XL32 (4250 GAL)

DIAGNOSIS

Recommendation

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 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. (Customer Sample Comment: 3um pleated filters are installed hilliard PH718-14-CNB BETA 3=200)

Wear

Component wear rates appear to be normal (unconfirmed).

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service (unconfirmed).

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0751390	WC0711963	WC0646868
Sample Date	Client Info		16 Nov 2022	15 Jun 2022	30 Nov 2021
Machine Age	yrs	Client Info	0	0	27
Oil Age	yrs	Client Info	10	0	9
Oil Changed	Client Info		Not Chngd	N/A	N/A
Sample Status			NORMAL	MARGINAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >15	0	0	0
Chromium	ppm	ASTM D5185(m) >4	0	0	0
Nickel	ppm	ASTM D5185(m) >2	0	0	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >10	<1	0	0
Lead	ppm	ASTM D5185(m)	0	0	0
Copper	ppm	ASTM D5185(m) >5	<1	<1	<1
Tin	ppm	ASTM D5185(m) >5	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	<1	0	<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) 0	<1	<1	<1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	0	0	0
Calcium	ppm	ASTM D5185(m) 0	0	0	<1
Phosphorus	ppm	ASTM D5185(m) 5	89	87	113
Zinc	ppm	ASTM D5185(m) 0	<1	<1	<1
Sulfur	ppm	ASTM D5185(m) 750	199	165	17
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

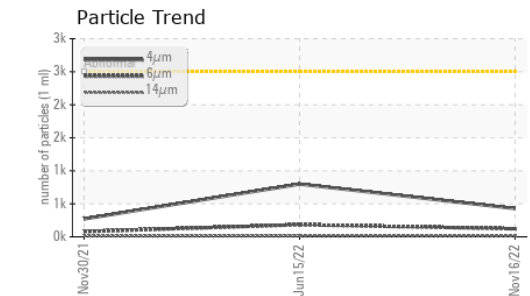
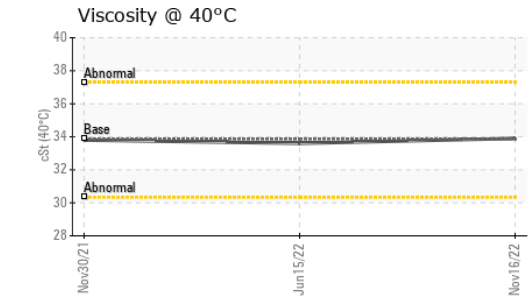
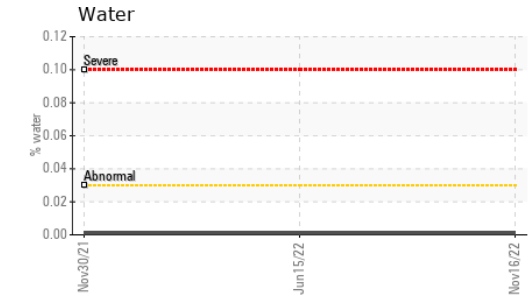
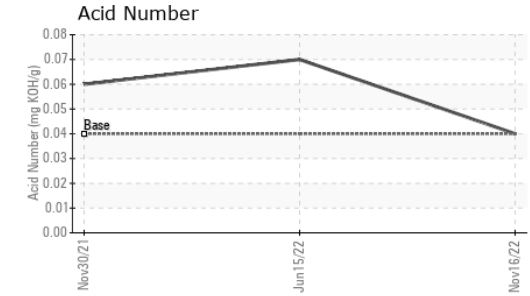
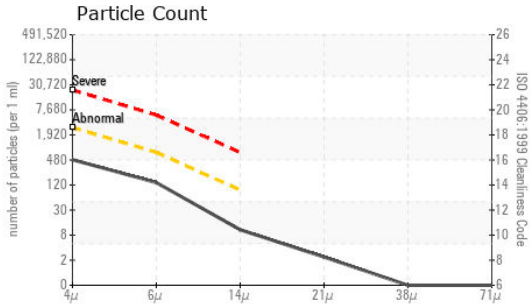
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<1	<1	0
Sodium	ppm	ASTM D5185(m)	0	0	0
Potassium	ppm	ASTM D5185(m) >20	<1	0	<1
Water	%	ASTM D6304* >0.03	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304* >300	5.9	3.7	4.5

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	428	799	271
Particles >6µm	ASTM D7647	>640	121	183	79
Particles >14µm	ASTM D7647	>80	9	14	9
Particles >21µm	ASTM D7647	>20	2	3	2
Particles >38µm	ASTM D7647	>4	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	16/14/10	17/15/11	15/13/10



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.04	0.07	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*	>0.03	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)	33.86	33.9	33.6	33.8

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



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0751390 **Received** : 17 Nov 2022
Lab Number : **02523232** **Diagnosed** : 18 Nov 2022
Unique Number : 5488213 **Diagnostician** : Kevin Marson
Test Package : IND 2

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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.