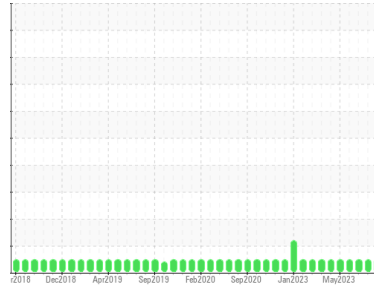


Area  
**Main Power Generation [450175825]**  
Machine Id  
**Generator MPG (Stbd) - Lubrication System (S/N Sample Tag XX-80101-S1)**  
Component  
**Turbine**  
Fluid  
**PETRO CANADA TURBOFLO 32 (8300 LTR)**



**DIAGNOSIS**

**Recommendation**

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.

**Wear**

Component wear rates appear to be normal (unconfirmed).

**Contamination**

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

**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	<b>PC</b>	PC0040112	PC
Sample Date	Client Info	<b>19 Jul 2023</b>	04 Jul 2023	04 Jul 2023
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

**WEAR METALS**

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

**ADDITIVES**

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m) 120	<b>290</b>	284	290
Zinc	ppm	ASTM D5185(m) 0.0	<b>1</b>	2	2
Sulfur	ppm	ASTM D5185(m) 0	<b>572</b>	617	636
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS**

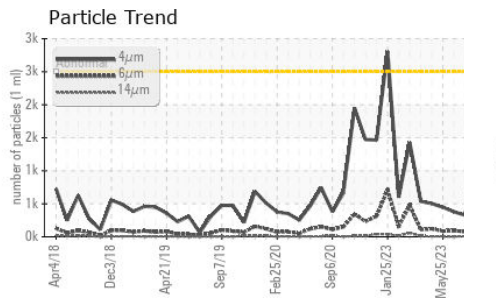
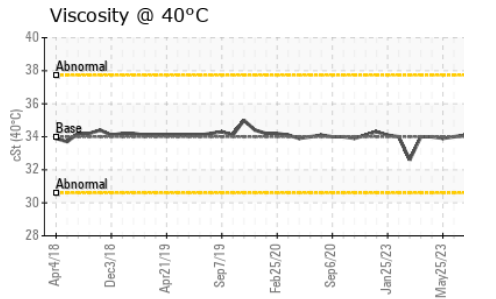
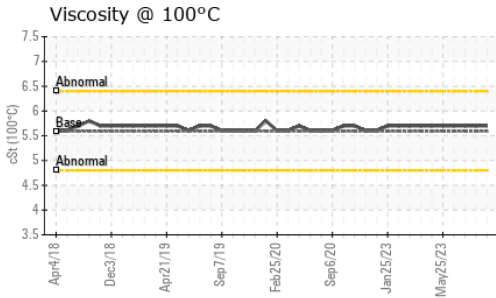
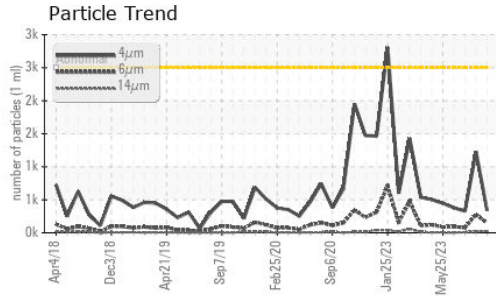
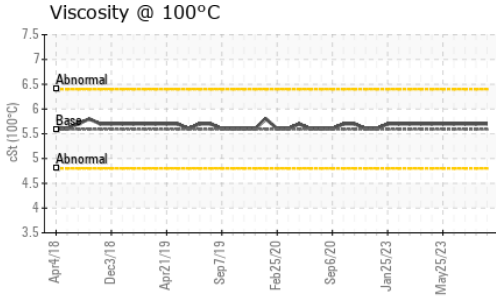
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >15	<b>2</b>	<1	<1
Sodium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

**FLUID CLEANLINESS**

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>2500	<b>339</b>	329	1227
Particles >6µm	ASTM D7647	>640	<b>149</b>	78	278
Particles >14µm	ASTM D7647	>80	<b>25</b>	8	18
Particles >21µm	ASTM D7647	>20	<b>7</b>	3	5
Particles >38µm	ASTM D7647	>4	<b>0</b>	0	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>16/14/12</b>	16/13/10	17/15/11

**FLUID DEGRADATION**

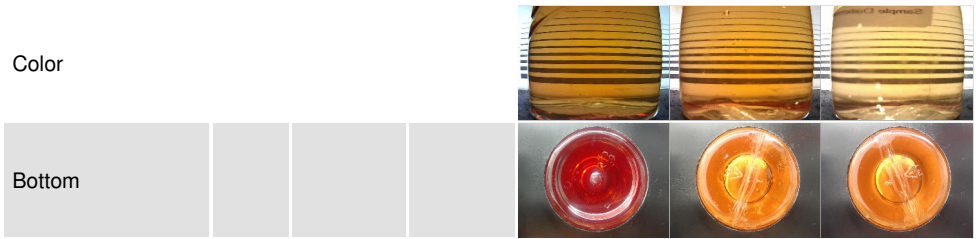
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974* 0.04	<b>0.08</b>	0.04	0.03



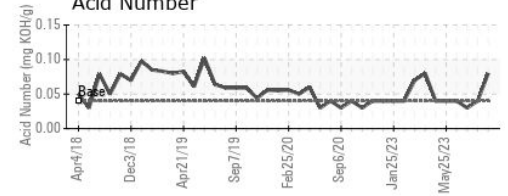
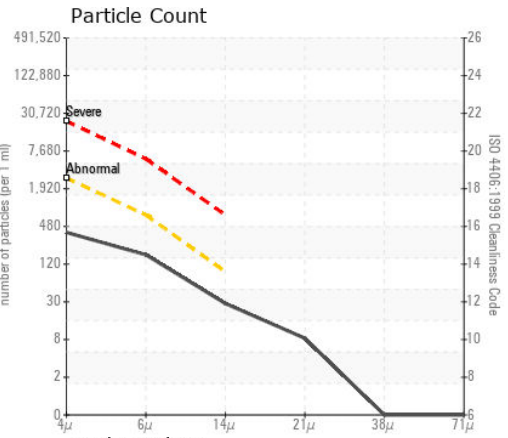
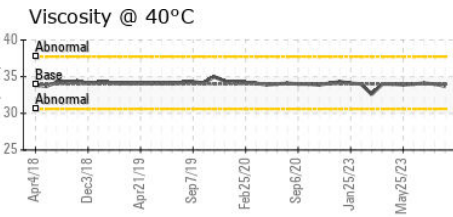
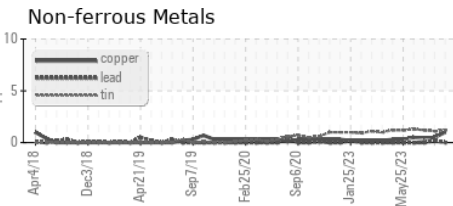
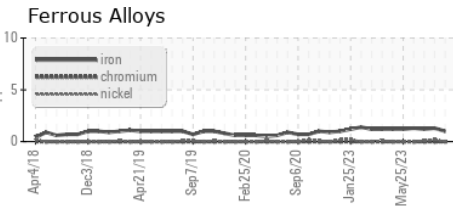
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	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	33.7	34.0
Visc @ 100°C	cSt	ASTM D7279(m)	5.59	5.7	5.7
Viscosity Index (VI)	Scale	ASTM D2270*	110	108	107

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC  
**Lab Number** : 02574976  
**Unique Number** : 5620027  
**Test Package** : MAR 2 ( Additional Tests: KV100, TAN Man, VI )  
**Received** : 09 Aug 2023  
**Diagnosed** : 10 Aug 2023  
**Diagnostician** : Kevin Marson

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshhynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

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.