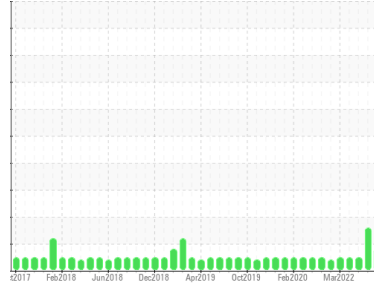


Area  
**Water Injection [450261613]**  
Machine Id  
**Pump Sea Water Injection (B) - Lube System (S/N Sample Tag PA-29002B-S1)**  
Component  
**Pump**  
Fluid  
**PETRO CANADA TURBOFLO 46 (1264 LTR)**



**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	<b>PC0076394</b>	PC0076326	PC0076260
Sample Date	Client Info	<b>08 Feb 2024</b>	18 Jan 2024	11 Oct 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>ATTENTION</b>	ABNORMAL	NORMAL

**CONTAMINATION** method limit/base current history1 history2

Water	WC Method	>.1	<b>NEG</b>	NEG	NEG
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**WEAR METALS** method limit/base current history1 history2

PQ	ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m) >75	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
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

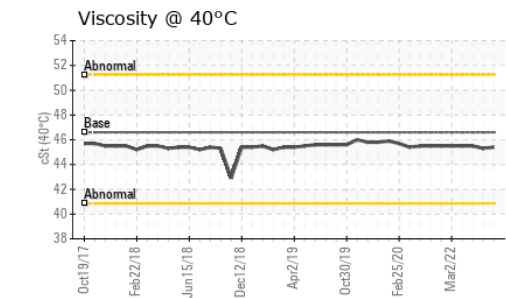
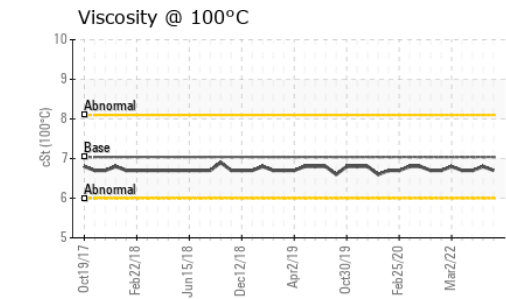
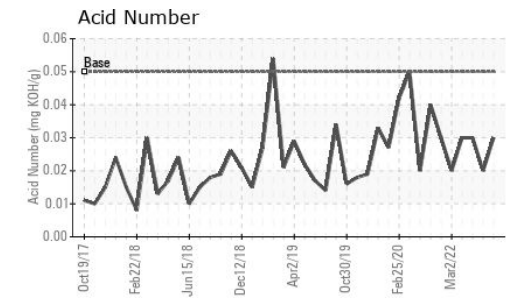
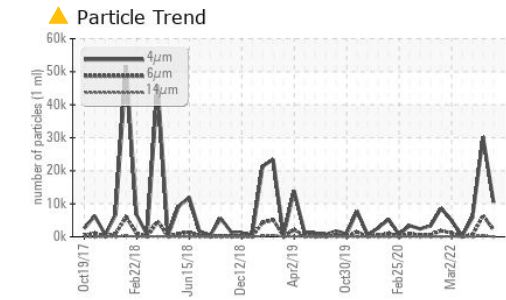
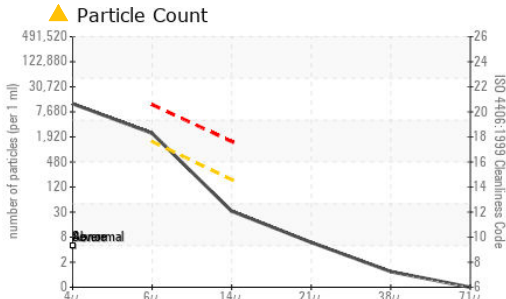
**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m) 110	<b>176</b>	171	173
Zinc	ppm	ASTM D5185(m) 0.0	<b>&lt;1</b>	<1	<1
Sulfur	ppm	ASTM D5185(m)	<b>334</b>	337	325
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m) >20	<b>1</b>	1	1
Sodium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	0

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0076394 **Received** : 12 Feb 2024  
**Lab Number** : **02615025** **Tested** : 13 Feb 2024  
**Unique Number** : 5724120 **Diagnosed** : 13 Feb 2024 - Bill Quesnel  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, TAN Man, 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.

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647			<b>10466</b>	30298	5901
Particles >6µm	ASTM D7647	>1300		<b>▲ 2053</b>	▲ 6492	574
Particles >14µm	ASTM D7647	>160		<b>28</b>	▲ 362	32
Particles >21µm	ASTM D7647	>40		<b>5</b>	▲ 104	7
Particles >38µm	ASTM D7647	>10		<b>1</b>	9	0
Particles >71µm	ASTM D7647	>3		<b>0</b>	2	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14		<b>▲ 21/18/12</b>	▲ 22/20/16	20/16/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	<b>0.03</b>	0.02	0.03

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.6	<b>45.4</b>	45.3	45.5
Visc @ 100°C	cSt	ASTM D7279(m)	7.04	<b>6.7</b>	6.8	6.7
Viscosity Index (VI)	Scale	ASTM D2270*	107	<b>99</b>	104	99

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

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