

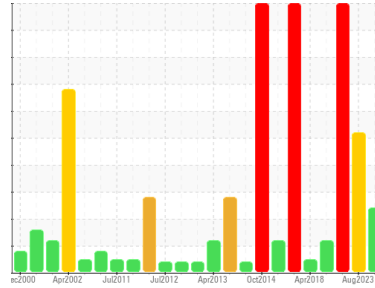


# OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

Area  
**PUMPHOUSE/CASTER SPRAY WATER PUMPS**  
 Machine Id  
**C - Caster Spray Water Turbine Pump IB**  
 Component  
**Lube System**  
 Fluid  
**PETRO CANADA HYDREX AW 100 (1 GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

### Wear

Light concentration of visible metal present.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0898649</b>	WC0850123	WC0824406
Sample Date	Client Info	<b>10 Jan 2024</b>	16 Aug 2023	30 May 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>ABNORMAL</b>	SEVERE	SEVERE

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184* >DFLT	<b>0</b>	3	7
Iron	ppm ASTM D5185(m) >20	<b>6</b>	13	▲ 58
Chromium	ppm ASTM D5185(m) >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185(m) >20	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm ASTM D5185(m)	<b>0</b>	2	0
Aluminum	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	▲ 31
Copper	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	▲ 280
Tin	ppm ASTM D5185(m) >20	<b>0</b>	0	5
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>0</b>	<1	<1
Barium	ppm ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Calcium	ppm ASTM D5185(m) 50	<b>53</b>	51	30
Phosphorus	ppm ASTM D5185(m) 330	<b>337</b>	348	336
Zinc	ppm ASTM D5185(m) 430	<b>430</b>	428	248
Sulfur	ppm ASTM D5185(m) 760	<b>2742</b>	2566	2586
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

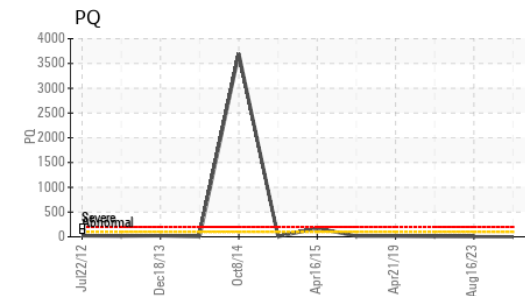
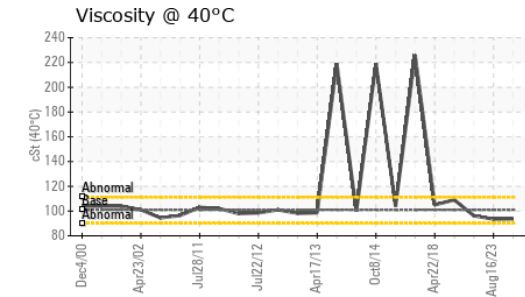
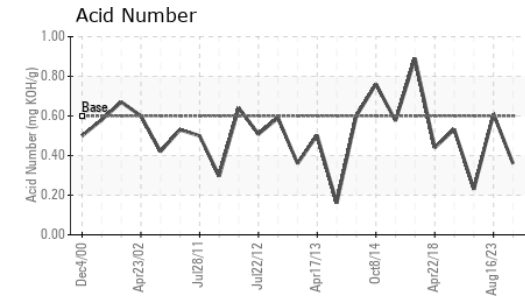
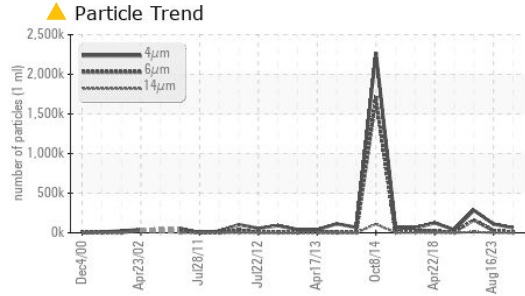
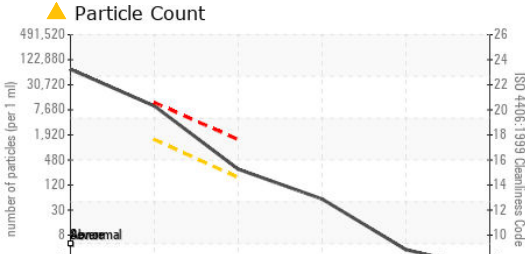
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>5</b>	5	8
Sodium	ppm ASTM D5185(m)	<b>0</b>	<1	4
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1





# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**  
**Sample No.** : WC0898649 **Received** : 10 Jan 2024 2330 Regional Road #3, Door: BOSC8  
**Lab Number** : 02608046 **Diagnosed** : 15 Jan 2024 NANTICOKE, ON  
**Unique Number** : 5709132 **Diagnostician** : Kevin Marson CA N0A 1L0  
**Test Package** : IND 2 ( Additional Tests: Bottom, BottomAnalysis, FilterPatch, PQ, PrtFilter ) **Contact:** Tom Walden  
 Thomas.Walden@stelco.com  
 T: (519)587-4541  
 F: (519)587-7702

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>62738</b>	110703	284157
Particles >6µm	ASTM D7647	>1300	<b>8299</b>	27245	161743
Particles >14µm	ASTM D7647	>160	<b>254</b>	1199	9739
Particles >21µm	ASTM D7647	>40	<b>49</b>	322	1346
Particles >38µm	ASTM D7647	>10	<b>3</b>	11	4
Particles >71µm	ASTM D7647	>3	<b>1</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14	<b>23/20/15</b>	24/22/17	25/25/20

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.60	<b>0.36</b>	0.61	0.23

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	<b>VLITE</b>	NONE	<b>VLITE</b>
Yellow Metal	scalar Visual*	NONE	<b>NONE</b>	NONE	<b>LIGHT</b>
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	.2%
Free Water	scalar Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	101	<b>93.7</b>	93.5	96.2

## SAMPLE IMAGES

