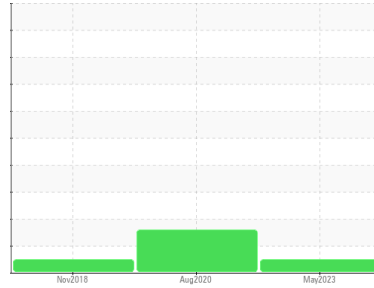




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
LSGS PLANT 2
 Machine Id
G4

Component
Pump Hydraulic System
 Fluid

PETRO CANADA ENDURATEX EP 68 (200 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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		WC0774037	WC0373466	WC985020
Sample Date	Client Info		18 May 2023	12 Aug 2020	14 Nov 2018
Machine Age	yrs	Client Info	8	18761	7660
Oil Age	yrs	Client Info	2	18761	7660
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	<1	0	0
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	<1	0	0
Lead	ppm	ASTM D5185(m) >20	0	<1	<1
Copper	ppm	ASTM D5185(m) >20	<1	<1	<1
Tin	ppm	ASTM D5185(m) >20	0	0	0
Antimony	ppm	ASTM D5185(m)	0	<1	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) 69	47	45	47
Barium	ppm	ASTM D5185(m) 1	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 1	0	0	0
Manganese	ppm	ASTM D5185(m) 1	0	0	<1
Magnesium	ppm	ASTM D5185(m) 1	0	<1	<1
Calcium	ppm	ASTM D5185(m) 1	1	3	3
Phosphorus	ppm	ASTM D5185(m) 246	293	265	253
Zinc	ppm	ASTM D5185(m) 1	15	19	18
Sulfur	ppm	ASTM D5185(m) 3670	3469	3249	3480
Lithium	ppm	ASTM D5185(m)	<1	<1	0

CONTAMINANTS

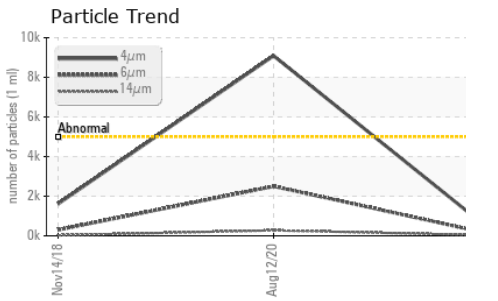
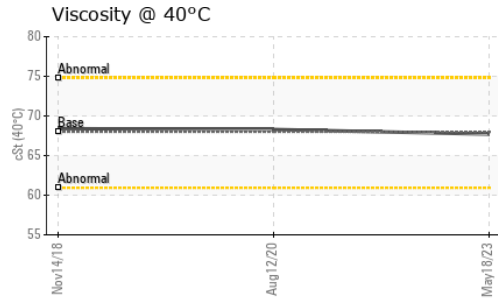
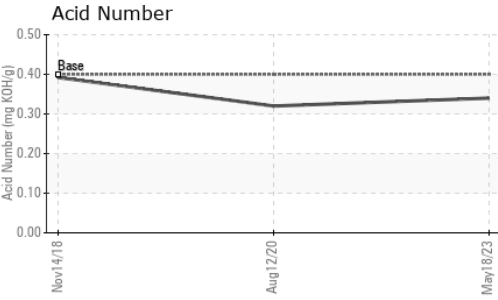
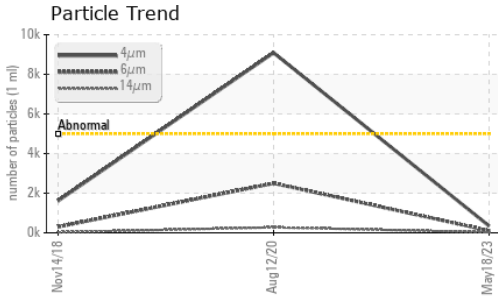
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	1	2	2
Sodium	ppm	ASTM D5185(m)	0	0	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	344	▲ 9089	1613
Particles >6µm	ASTM D7647	>1300	106	▲ 2501	303
Particles >14µm	ASTM D7647	>160	24	▲ 276	24
Particles >21µm	ASTM D7647	>40	8	▲ 92	7
Particles >38µm	ASTM D7647	>10	1	2	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	16/14/12	▲ 20/19/15	18/15/12



OIL ANALYSIS REPORT



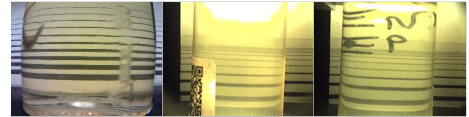
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.4	0.34	0.32	0.392

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	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	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)	68.0	67.7	68.3	68.4

SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color

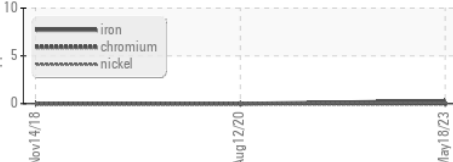


Bottom

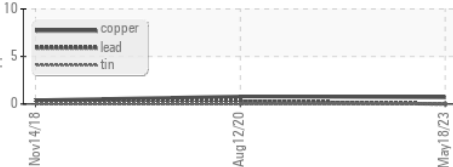


GRAPHS

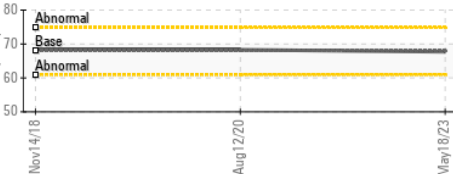
Ferrous Alloys



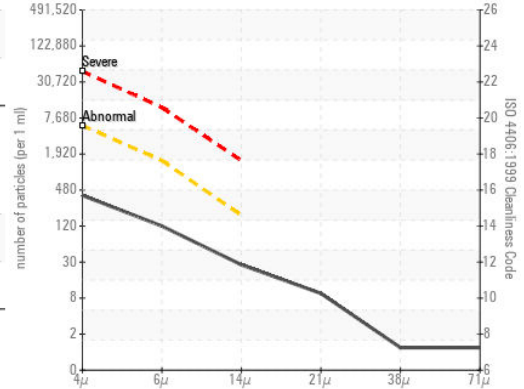
Non-ferrous Metals



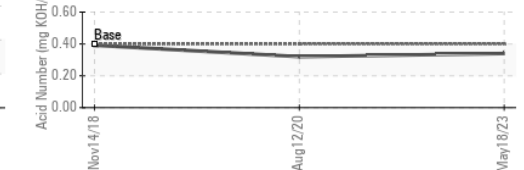
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
 Sample No. : WC0774037
 Lab Number : **02560162**
 Unique Number : 5581202
 Test Package : IND 2

Received : 29 May 2023
 Diagnosed : 30 May 2023
 Diagnostician : Kevin Marson

PETERBOROUGH UTILITIES INC
 1867 ASHBURNHAM DRIVE
 PETERBOROUGH, ON
 CA K9L 1P8
 Contact: Nelson Ross
 nross@pui.ca
 T: (705)760-6119
 F: (705)748-3138

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.