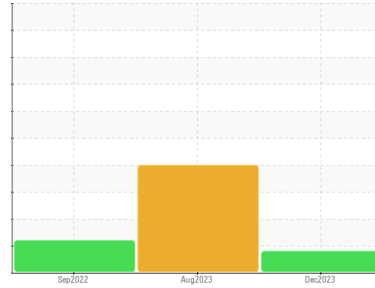




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
OR872
Component
Hydraulic System
Fluid
PETRO CANADA PRODURO TO-4 SAE 10W (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0100646	GFL0077026	GFL0054679
Sample Date	Client Info		01 Dec 2023	10 Aug 2023	02 Sep 2022
Machine Age	hrs	Client Info	21348	20882	19622
Oil Age	hrs	Client Info	1726	1260	1500
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ATTENTION	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	12	37	8
Chromium	ppm	ASTM D5185(m) >10	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >10	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m)	<1	0	0
Aluminum	ppm	ASTM D5185(m) >10	2	2	2
Lead	ppm	ASTM D5185(m) >10	2	<1	3
Copper	ppm	ASTM D5185(m) >75	5	11	4
Tin	ppm	ASTM D5185(m) >10	0	0	0
Antimony	ppm	ASTM D5185(m)	0	<1	<1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 1	3	2	3
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 1	<1	<1	1
Manganese	ppm	ASTM D5185(m) 1	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1	16	10	17
Calcium	ppm	ASTM D5185(m) 2864	3266	3051	3542
Phosphorus	ppm	ASTM D5185(m) 987	922	1067	956
Zinc	ppm	ASTM D5185(m) 1162	1123	1209	1071
Sulfur	ppm	ASTM D5185(m) 3713	3592	3605	3387
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

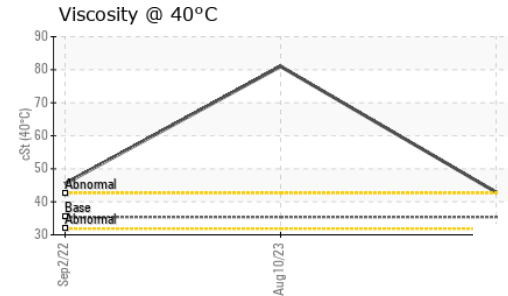
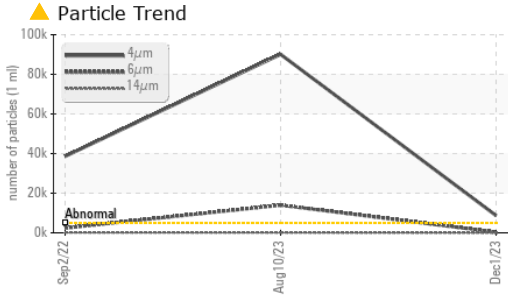
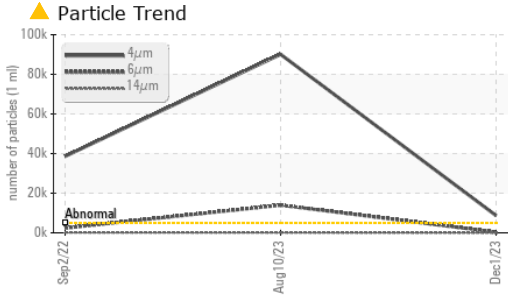
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	15	6	11
Sodium	ppm	ASTM D5185(m)	3	1	2
Potassium	ppm	ASTM D5185(m) >20	<1	2	2

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 8711	● 90095	▲ 38605
Particles >6µm	ASTM D7647	>1300	334	● 13960	▲ 2419
Particles >14µm	ASTM D7647	>160	31	132	151
Particles >21µm	ASTM D7647	>40	6	28	54
Particles >38µm	ASTM D7647	>10	1	2	2
Particles >71µm	ASTM D7647	>3	0	1	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/16/12	● 24/21/14	▲ 22/18/14

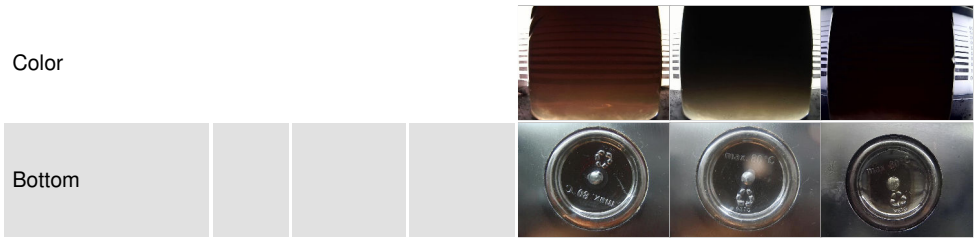
OIL ANALYSIS REPORT



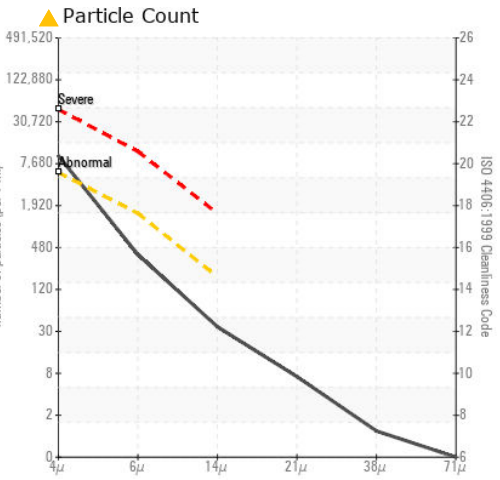
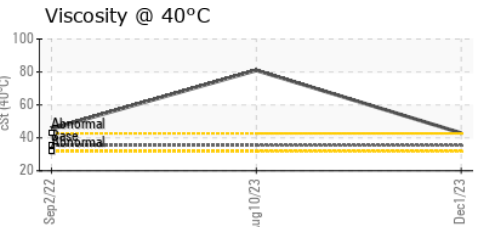
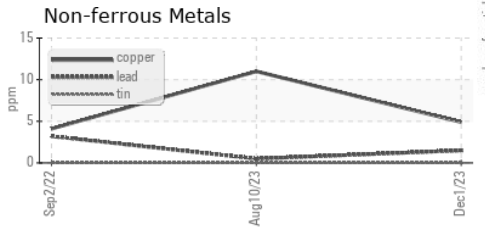
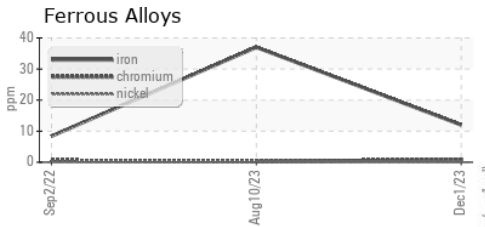
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	35.38	42.9	▲ 81.0	45.5

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling
Sample No. : GFL0100646 **Received** : 06 Dec 2023
Lab Number : 02601251 **Diagnosed** : 07 Dec 2023
Unique Number : 5694336 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: PrtCount)

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.

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