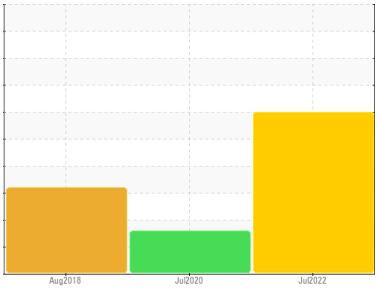
PROBLEM SUMMARY

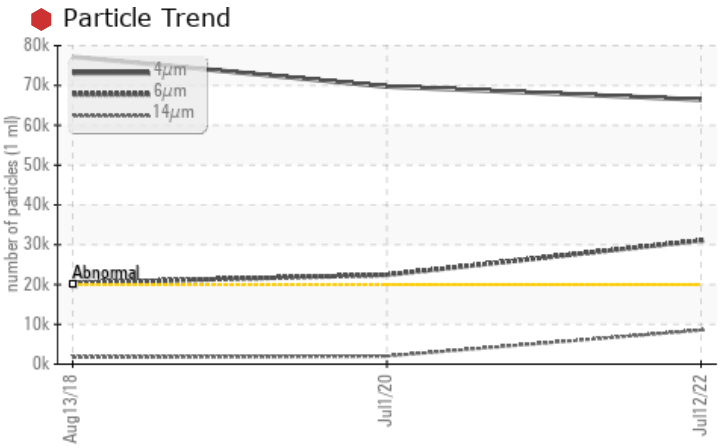
Sample Rating Trend



ISO

Machine Id
TRPC G2 HUB
Component
Gearbox
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (310 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>20000	▲ **66415**	▲ 69726	▲ 77224
Particles >6µm		ASTM D7647	>5000	▲ **31051**	▲ 22421	▲ 20398
Particles >14µm		ASTM D7647	>640	⬢ **8535**	▲ 2026	▲ 1717
Particles >21µm		ASTM D7647	>160	⬢ **2599**	▲ 497	▲ 542
Oil Cleanliness		ISO 4406 (c)	>21/19/16	⬢ **23/22/20**	▲ 23/22/18	▲ 23/22/18

Customer Id: PET412PET
Sample No.: WC0541633
Lab Number: 02509897
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

01 Jul 2020 Diag: Wes Davis

ISO

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

13 Aug 2018 Diag: Wes Davis

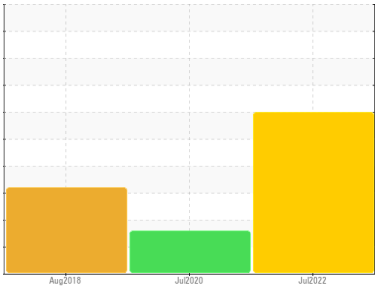
WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Water and ppm water contamination levels are abnormal. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
TRPC G2 HUB
Component
Gearbox
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (310 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

Particles >14µm are severely high. Particles >21µm are severely high. Oil Cleanliness are severely high. Particles >6µm are abnormally high. Particles >4µm are abnormally high. Particles >38µm are notably high.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0541633**	WC119380	WC985015
Sample Date		Client Info		**12 Jul 2022**	01 Jul 2020	13 Aug 2018
Machine Age	hrs	Client Info		**66322**	58409	0
Oil Age	hrs	Client Info		**7913**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

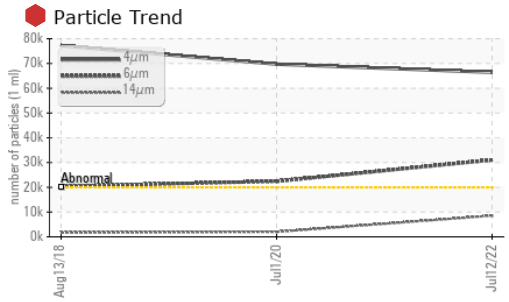
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	**3**	5	4
Chromium	ppm	ASTM D5185(m)	>15	**0**	<1	0
Nickel	ppm	ASTM D5185(m)	>15	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	**0**	<1	0
Lead	ppm	ASTM D5185(m)	>100	**2**	2	3
Copper	ppm	ASTM D5185(m)	>200	**<1**	1	2
Tin	ppm	ASTM D5185(m)	>25	**<1**	<1	0
Antimony	ppm	ASTM D5185(m)		**<1**	0	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

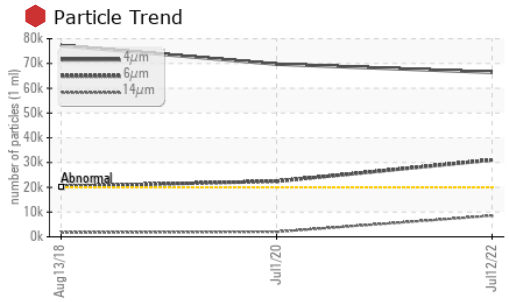
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	<1
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	<1
Magnesium	ppm	ASTM D5185(m)		**0**	<1	<1
Calcium	ppm	ASTM D5185(m)		**0**	<1	<1
Phosphorus	ppm	ASTM D5185(m)	410	**560**	569	578
Zinc	ppm	ASTM D5185(m)		**<1**	2	1
Sulfur	ppm	ASTM D5185(m)	840	**548**	710	490
Lithium	ppm	ASTM D5185(m)		**<1**	<1	0

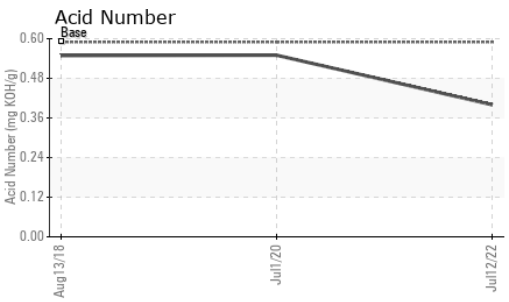
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**2**	1	<1
Sodium	ppm	ASTM D5185(m)		**0**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	0

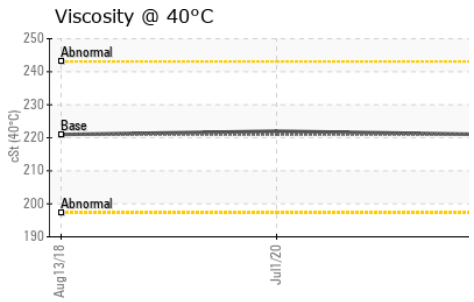
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **66415**	▲ 69726	▲ 77224
Particles >6µm		ASTM D7647	>5000	▲ **31051**	▲ 22421	▲ 20398
Particles >14µm		ASTM D7647	>640	⬢ **8535**	▲ 2026	▲ 1717
Particles >21µm		ASTM D7647	>160	⬢ **2599**	▲ 497	▲ 542
Particles >38µm		ASTM D7647	>40	▲ **57**	24	16
Particles >71µm		ASTM D7647	>10	**4**	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	⬢ **23/22/20**	▲ 23/22/18	▲ 23/22/18

OIL ANALYSIS REPORT









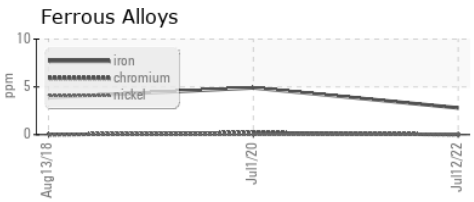
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.59	**0.40**	0.55	0.549

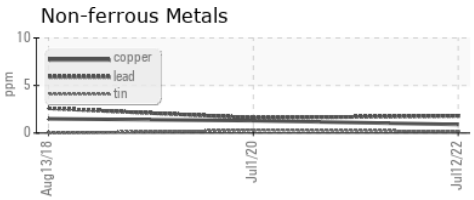
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

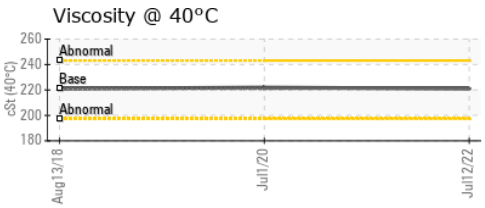
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	221	**221**	222	221

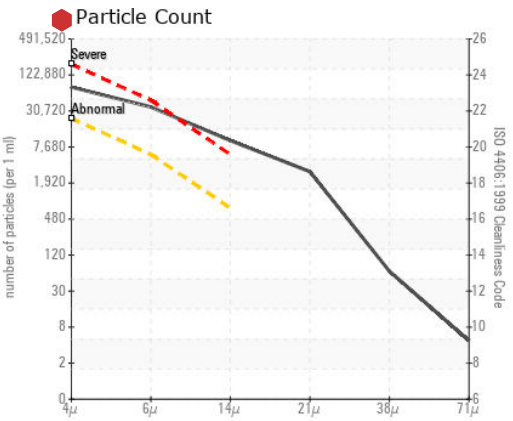
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					

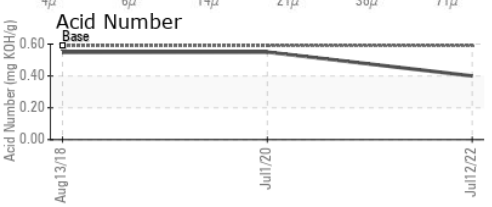
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0541633 **Recieved** : 09 Sep 2022
Lab Number : 02509897 **Diagnosed** : 09 Sep 2022
Unique Number : 5450867 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: TAN Man)

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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