

Machine Id **17C01H07#02 - Port Tugger Gearbox** Component **Port Gearbox** Fluid **PETRO CANADA TRAXON 75W90 SYNTHETIC (3 LTR)**

RECOMMENDATION

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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

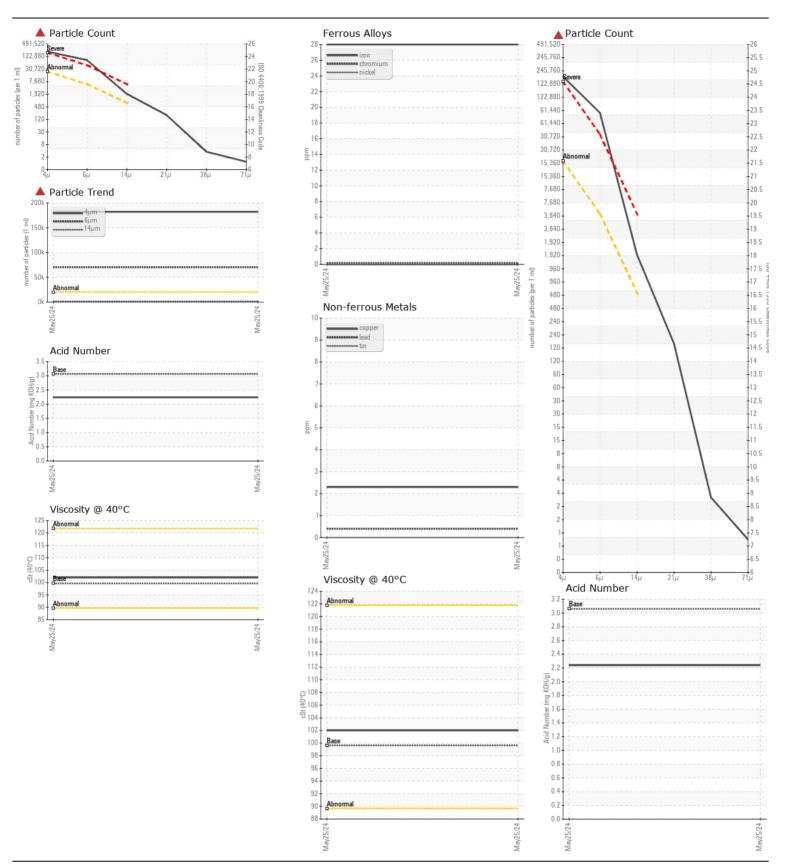
CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0839665		
Sample Date		Client Info		25 May 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		100		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		None		
Sample Status				SEVERE		
Iron	ppm	ASTM D5185(m)	>150	28		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>5	0		
Lead	ppm	ASTM D5185(m)	>65	<1		
Copper	ppm	ASTM D5185(m)	>80	2		
Tin	ppm	ASTM D5185(m)	>8	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>20	1		
Potassium	ppm	ASTM D5185(m)		2		
Water		WC Method	>0.2	NEG		
Particles >4µm		ASTM D7647	>20000	182043		
Particles >6µm		ASTM D7647	>5000	A 70248		
Particles >14µm		ASTM D7647		A 1722		
Particles >21µm		ASTM D7647	>160	168		
Particles >38µm		ASTM D7647		3		
Particles >71µm		ASTM D7647	>10	1		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	4 25/23/18		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	VLITE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Sodium	nnm	ASTM D5185(m)		21		
Sodium	ppm	ASTM D5185(m)	328	193		
Boron Barium	ppm	ASTM D5185(m)	320 1	0		
	ppm	ASTM D5185(m)	1	0		
Molybdenum	ppm	()				
Manganese	ppm	ASTM D5185(m)	1	<1 5		
Magnesium	ppm	ASTM D5185(m)		5 4		
Calcium	ppm	ASTM D5185(m)	7			
Phosphorus	ppm	ASTM D5185(m)	1145	1356		
Zinc	ppm	ASTM D5185(m)	3	10		
Sulfur	ppm	ASTM D5185(m)	17909	22943		
Acid Number (AN)	mg KOH/g	ASTM D974*	3.06	2.24		
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	102		



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **CANADIAN COAST GUARD** CALA Sample No. : WC0839665 CCGS SIR WILLIAM ALEXANDER, 13 AKERLEY BLVD, DOOR 1A Received : 30 May 2024 Lab Number : 02638964 : 31 May 2024 DARTMOUTH, NS Tested ISO 17025:2017 Accredited : 31 May 2024 - Wes Davis CA B3B 1J6 Unique Number : 5788126 Diagnosed Laboratory Test Package : MAR 2 (Additional Tests: PrtCount, TAN Man) Contact: Chief Engineer Senior Engineer To discuss this sample report, contact Customer Service at 1-800-268-2131. sirwilliamalexanderse@nwa.ccgs-ngcc.gc.ca Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (902)456-9281 F: (902)701-0593 Validity of results and interpretation are based on the sample and information as supplied.