

DIRT

#### Machine Id

# LHS CARRIAGE ACTUATOR CYLINDER Gearbox

Fluid

PETRO CANADA ENDURATEX EP 220 (3 GAL)

## DIAGNOSIS

#### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.

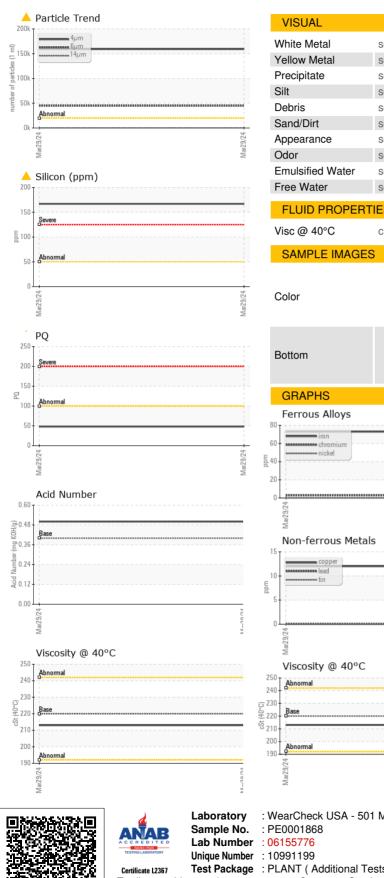
# Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0001868		
Sample Date		Client Info		29 Mar 2024		
Machine Age	yrs	Client Info		2		
Oil Age	yrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		48		
Iron	ppm	ASTM D5185m	>200	73		
Chromium	ppm	ASTM D5185m	>15	3		
Nickel	ppm	ASTM D5185m	>15	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>100	0		
Copper	ppm	ASTM D5185m	>200	12		
Tin	ppm	ASTM D5185m	>25	0		
Vanadium	ppm	ASTM D5185m	/ 10	<1		
Cadmium	ppm	ASTM D5185m		0		
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ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	60	48		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m	0	2		
Magnesium	ppm	ASTM D5185m	0	1		
Calcium	ppm	ASTM D5185m	0	6		
Phosphorus	ppm	ASTM D5185m	270	227		
Zinc	ppm	ASTM D5185m	0	11		
Sulfur	ppm	ASTM D5185m	11200	6687		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	🔺 167		
Sodium	ppm	ASTM D5185m		3		
Potassium	ppm	ASTM D5185m	>20	1		
Water	%	ASTM D6304	>0.2	NEG		
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>159174</b>		
Particles >6µm		ASTM D7647	>5000	<u> </u>		
Particles >14µm		ASTM D7647	>640	237		
Particles >21µm		ASTM D7647	>160	37		
Particles >38µm		ASTM D7647	>40	2		
Particles >71µm		ASTM D7647	>10	1		
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>A</b> 24/23/15		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.40	0.50		



# **OIL ANALYSIS REPORT**



method limit/base history1 history2 current NONE \*Visual NONE scalar \*Visual NONE NONE scalar NONE scalar \*Visual NONE scalar \*Visual NONE NONE \*Visual NONE NONE scalar NONE NONE scalar \*Visual NORML scalar \*Visual NORML \*Visual NORML NORML scalar \*Visual scalar >0.2 NEG scalar \*Visual NEG FLUID PROPERTIES method limit/base current history history cSt ASTM D445 220 213 method limit/base history1 history2 current no image no image no image no imade Particle Count 491.52 122,88 30.72 7.680 Mar29/24 4406 per 1 1,920 :1999 Cle 480 120 3 214 38 Acid Number (<sup>0.60</sup>) (<sup>0</sup>/HO) Base Ē 0.36 · 문 0.24 0.12 Acid 0.00 Mar29/24 Mar29 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 FRERES ENGINEERED WOOD PRODUCTS Received : 22 Apr 2024 141 14TH ST Tested : 24 Apr 2024 LYONS, OR Diagnosed : 24 Apr 2024 - Jonathan Hester US 97358 Test Package : PLANT (Additional Tests: FT-IR, ICP, KF, KV40, PQ, PrtCount, SCREEN) Contact: GERRITT LAW glaw@frereswood.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: GERRITT LAW - FRELYO

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