

PROBLEM SUMMARY

TRAYLOR 54-74 B101-211 GC1 CRUSHER OIL

Gearbox

PETRO CANADA ENDURATEX EP 320 (2200 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL			
Particles >4µm	ASTM D7647	>20000	🔺 147104	▲ 73424	1 37757			
Particles >6µm	ASTM D7647	>5000	<u> </u>	1 5338	🔺 28919			
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<u> </u>	<u> </u>	<u> </u>			

Customer Id: HOLCOL Sample No.: PC0062136 Lab Number: 02600249 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 <u>gloria.gonzalez@wearcheck.com</u>



RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter			?	We recommend you service the filters on this component.			
Resample			?	We recommend an early resample to monitor this condition.			

HISTORICAL DIAGNOSIS



01 May 2023 Diag: Wes Davis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) 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

06 Dec 2022 Diag: Wes Davis



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4 μ m are abnormally high. Particles >6 μ m are abnormally high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

19 Jul 2021 Diag: Wes Davis



We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Particles >4 μ m are abnormally high. Particles >6 μ m are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report







TRAYLOR 54-74 B101-211 GC1 CRUSHER OIL

Gearbox Fluid

PETRO CANADA ENDURATEX EP 320 (2200 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate 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.



	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0062136	PC0062139	PC0062133
Sample Date		Client Info		22 Nov 2023	01 May 2023	06 Dec 2022
Machine Age	hrs	Client Info		3473	2091	12672
Oil Age	hrs	Client Info		1757	375	3132
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	maa	ASTM D5185(m)	>200	8	5	13
Chromium	mag	ASTM D5185(m)	>15	0	0	0
Nickel	ppm	ASTM D5185(m)	>15	۔ د1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	nom	ASTM D5185(m)		<1	<1	0
Aluminum	nnm	ASTM D5185(m)	>25	<1	<1	<1
Lead	nnm	ASTM D5185(m)	>100	4	2	8
Conner	ppm	ASTM D5185(m)	>200		10	33
Tin	ppin	ASTM D5105(III)	>25	1	-1	2
Antimony	ppm	AQTM DE105(m)	>20	0		ے 1
Vanadium	ppm		>0	0	0	< 1
Variaulum	ppm			0	0	0
	ppm	ACTM D5105(m)		0	0	0
Cadmium	ppm	ASIM D5185(m)		U	U	U
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	55	36	49	20
Barium	ppm	ASTM D5185(m)	0	<1	0	0
			0	0	0	0
Molybdenum	ppm	ASTM D5185(m)				
Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0	0	0	<1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0	0 0	0 0	<1 <1
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	0 0 3	0 0 0	<1 <1 2
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 240	0 0 3 225	0 0 0 259	<1 <1 2 231
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1	0 0 3 225 3	0 0 0 259 2	<1 <1 2 231 3
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700	0 0 3 225 3 4399	0 0 259 2 5161	<1 <1 2 231 3 5804
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700	0 0 3 225 3 4399 <1	0 0 259 2 5161 <1	<1 <1 2 231 3 5804 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 limit/base	0 0 3 225 3 4399 <1 current	0 0 259 2 5161 <1 history1	<1 <1 2 231 3 5804 <1 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 Iimit/base >50	0 0 3 225 3 4399 <1 current 6	0 0 259 2 5161 <1 history1 6	<1 <1 2 231 3 5804 <1 history2 6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 limit/base >50	0 0 3 225 3 4399 <1 current 6 <1	0 0 259 2 5161 <1 history1 6 0	<1 <1 2 231 3 5804 <1 history2 6 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm vTS	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 Iimit/base >50 >20	0 0 3 225 3 4399 <1 current 6 <1 0	0 0 259 2 5161 <1 history1 6 0 <1	<1 <1 <2 231 3 5804 <1 history2 6 <1 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN	ppm ppm ppm ppm ppm ppm ppm ppm yTS ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 Iimit/base >50 >20	0 0 3 225 3 4399 <1 current 6 <1 0 current	0 0 259 2 5161 <1 history1 6 0 <1 history1	<1 <1 <2 231 3 5804 <1 history2 6 <1 0 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm vTS ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 imit/base >50 >20 imit/base >20000	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 147104	0 0 259 2 5161 <1 history1 6 0 <1 + history1 ∧ 73424	<1 <1 <1 231 3 5804 <1 history2 6 <1 0 history2 Airror 137757
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm vTS ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 240 1 13700 imit/base >50 20 imit/base >20000 >5000	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 2 147104 ▲ 147104	0 0 259 2 5161 <1 history1 6 0 <1 history1 ▲ 73424 ▲ 15338	<1 <1 2 231 3 5804 <1 6 <1 0 history2 6 <1 0 history2 ▲ 137757 ▲ 28919
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm vTS ppm ppm ppm	ASTM D5185(m) ASTM D7647	0 0 240 1 13700 imit/base >50 >20 imit/base >20000 >5000 >640	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 2 0 2 0 2 0 2 2 9021 186	0 0 259 2 5161 <1 history1 6 0 <1 history1 history1 ∧ 73424 ∧ 15338 201	<1 <1 2 231 3 5804 <1 6 <1 0 history2 6 <1 0 history2 28919 234
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ym ym ppm pp	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 0 240 1 13700 ///////////////////////////////////	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 2 0 2 0 2 0 2 0 2 0 2 147104 ▲ 29021 186 17	0 0 259 2 5161 <1 history1 6 0 <1 history1 6 0 <1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1 ×1	<1 <1 2 231 3 5804 <1 bistory2 6 <1 0 bistory2 ∧ 137757 ∧ 28919 234 27
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm yTS ppm ppm LINESS	ASTM D5185(m) ASTM D76477 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 240 1 13700 Imit/base >50 S0 S20 Imit/base >20000 >5000 >640 >160 >40	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 29021 186 17 3	0 0 259 2 5161 <1 history1 6 0 <1 history1 ∧ 73424 ∧ 15338 201 38 11	<1 <1 2 231 3 5804 <1 6 <1 0 history2 137757 28919 234 27 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >4µm Particles >14µm Particles >38µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm yTS ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D76477 ASTM D76477 ASTM D76477 ASTM D76477 ASTM D76477 ASTM D76477	0 0 240 1 13700 imit/base >50 >20 imit/base >20000 >5000 >640 >160 >40 >10	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 29021 186 17 3 2 2	0 0 259 2 5161 <1 history1 6 0 <1 history1 ∧ 73424 ∧ 73424 ∧ 15338 201 38 11 38 11	<1 2 231 3 5804 <1 6 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEAN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm ppm yTS ppm ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D76477	0 0 240 1 13700 Imit/base >50 20 Imit/base >20000 >5000 >640 >160 >40 >10 >10	0 0 3 225 3 4399 <1 current 6 <1 0 current 0 29021 186 17 3 2 24/22/15	0 0 259 2 5161 <1 • history1 6 0 <1 • history1 • 15338 201 38 11 38 11 9 9 ▲ 23/21/15	<1 2 231 3 5804 <10 6 <10 6 <10

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OIL ANALYSIS REPORT

Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	mg KOH/g scalar	ASTM D974* method Visual*	0.4 limit/base	0.37 current	0.40 history1	0.41 history
VISUAL White Metal Yellow Metal Precipitate	scalar	method Visual*	limit/base	current	history1	history
White Metal Yellow Metal Precipitate	scalar	Visual*	NONE			
Yellow Metal Precipitate	coolar		INDINE	NONE	NONE	NONE
Precipitate	Scalal	Visual*	NONE	NONE	NONE	NONE
	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORM
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	histor
Visc @ 40°C	cSt	ASTM D7279(m)	325	338	335	335
Visc @ 100°C	cSt	ASTM D7279(m)	25.22	25.8	25.6	25.2
Viscosity Index (VI)	Scale	ASTM D2270*	100	99	99	97
SAMPLE IMAG	ES	method	limit/base	current	history1	histor
Oslar					50062139 J	
Color						
					Max 10 - C	0
Bottom						2.03 100











Aug2 Sep	Sep Jun2	Nov2 Apr2 May				
760.67	CALA	Laboratory	: WearCheck - C	8-1175 Appleby Lir	ne, Burlington, ON L7L 5	5H9 CRH Canada – Ogden Point Quarry
	According to 1006018	Sample No.	: PC0062136	Received	: 01 Dec 2023	PO Box 160, 176 Victoria Beach Road
	ISO 17025:2017	Lab Number	: 02600249	Diagnosed	: 06 Dec 2023	Colborne, ON
	Accredited	Unique Number	: 5685329	Diagnostician	: Wes Davis	CA K0K 1S0
	Laboratory	Test Package	: IND 2 (Additio	nal Tests: KV100, T	AN Man, VI)	Contact: Sefton Grell
8324	To discuss this	s sample report,	contact Customer	Service at 1-800-26	8-2131.	sefton.grell@ca.crh.com
HH, OH	Test denoted ((*) outside scope	of accreditation, (m) method modified	l, (e) tested at external l	ab. T: (905)355-2534
	Validity of resu	ults and interpreta	ation are based on	the sample and inf	ormation as supplied.	F: (905)355-2667