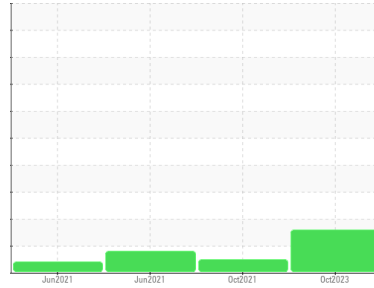


PROBLEM SUMMARY

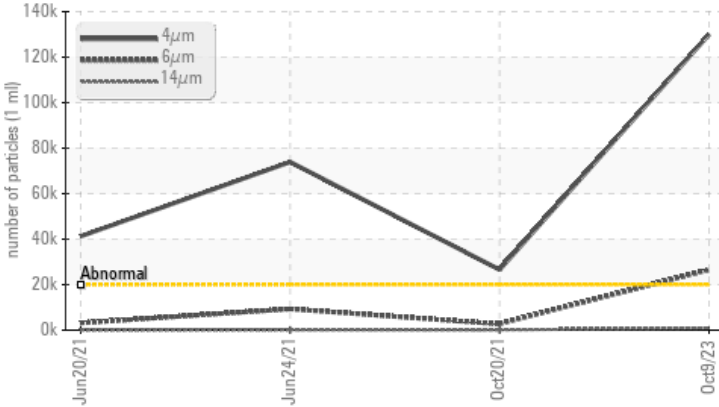
Area
1460
Machine Id
1460-5666-4004 - TAILINGS THICKENER MECH PLANETARY
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX XL 68/220 (50 LTR)

Sample Rating Trend

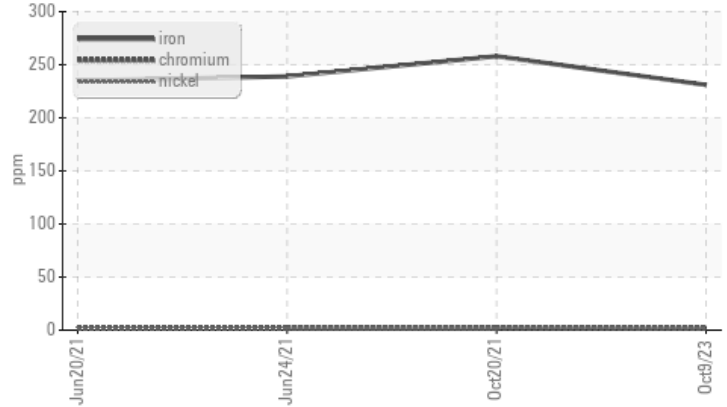


COMPONENT CONDITION SUMMARY

▲ Particle Trend



Ferrous Alloys



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	NORMAL	ABNORMAL
Particles >4µm	ASTM D7647 >20000	▲ 129989	26576	▲ 73916
Particles >6µm	ASTM D7647 >5000	▲ 26498	2702	▲ 9313
Particles >14µm	ASTM D7647 >640	▲ 947	88	129
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 24/22/17	22/19/14	▲ 23/20/14

Customer Id: INCVOS
Sample No.: PC0058541
Lab Number: 02595465
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Bill Quesnel CLS, OMA II, MLA-III, LLA-I +1
(289)291-4641 x4641
Bill.Quesnel@wearcheck.com

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

HISTORICAL DIAGNOSIS

20 Oct 2021 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



24 Jun 2021 Diag: Kevin Marson

ISO



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 >4µm are abnormally high. Particles >6µm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



20 Jun 2021 Diag: Kevin Marson

ISO

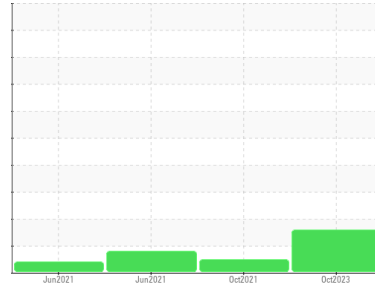


We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >4µm are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
1460
Machine Id
1460-5666-4004 - TAILINGS THICKENER MECH PLANETARY
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX XL 68/220 (50 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0058541	PC0030025	PC0030071
Sample Date	Client Info			09 Oct 2023	20 Oct 2021	24 Jun 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

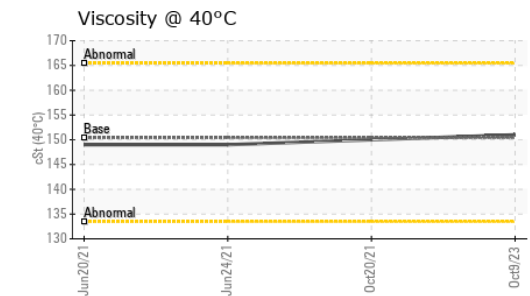
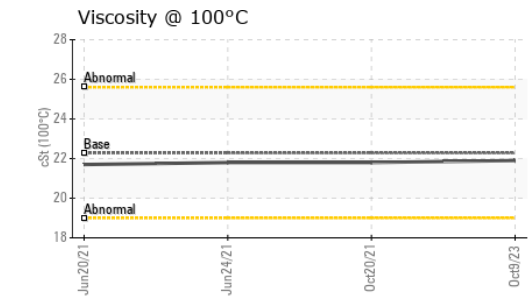
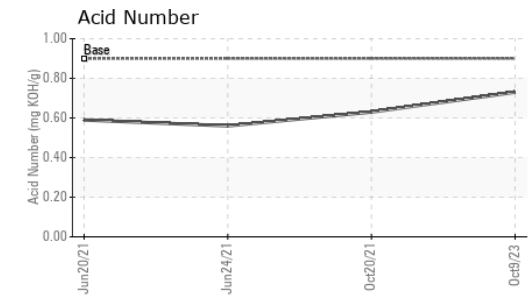
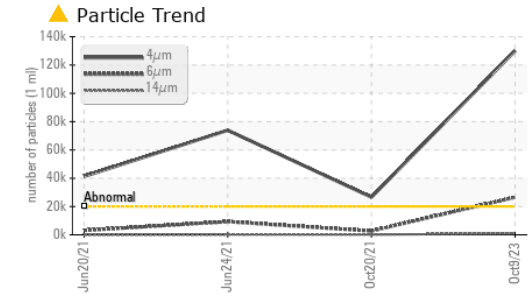
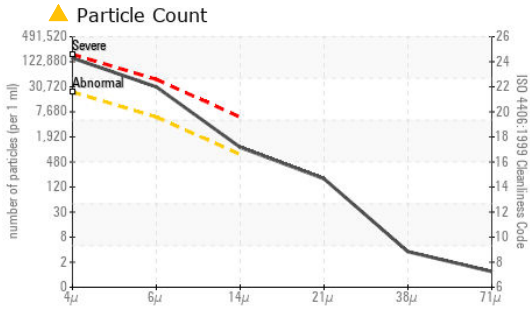
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>200	231	258	239
Chromium	ppm	ASTM D5185(m)	>15	2	2	2
Nickel	ppm	ASTM D5185(m)	>15	1	1	1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>100	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>200	7	12	10
Tin	ppm	ASTM D5185(m)	>25	0	<1	<1
Antimony	ppm	ASTM D5185(m)	>5	0	<1	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)		12	13	12
Barium	ppm	ASTM D5185(m)		<1	0	<1
Molybdenum	ppm	ASTM D5185(m)		0	<1	<1
Manganese	ppm	ASTM D5185(m)		<1	1	1
Magnesium	ppm	ASTM D5185(m)		0	0	<1
Calcium	ppm	ASTM D5185(m)		13	6	6
Phosphorus	ppm	ASTM D5185(m)	240	295	327	306
Zinc	ppm	ASTM D5185(m)		11	11	11
Sulfur	ppm	ASTM D5185(m)	4060	5394	5839	5658
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

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

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ 129989	26576	▲ 73916
Particles >6µm		ASTM D7647	>5000	▲ 26498	2702	▲ 9313
Particles >14µm		ASTM D7647	>640	▲ 947	88	129
Particles >21µm		ASTM D7647	>160	167	15	20
Particles >38µm		ASTM D7647	>40	3	0	0
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 24/22/17	22/19/14	▲ 23/20/14

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0058541
Lab Number : 02595465
Unique Number : 5672544
Test Package : IND 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, VI)

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.

Vale - Voisey's Bay
 Voisey's Bay Mine Site, P.O. Box 7001, Str. C Happy Valley
 Goose Bay, NL
 CA A0P 1C0
 Contact: Robert Feltham
 robert.feltham@vale.com

T:
F: x:

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.9	0.73	0.63	0.56
VISUAL					
method	limit/base	current	history1	history2	
White Metal	scalar Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar Visual*	NONE	NONE	VLITE	NONE
Precipitate	scalar Visual*	NONE	NONE	NONE	NONE
Silt	scalar Visual*	NONE	NONE	NONE	NONE
Debris	scalar Visual*	NONE	NONE	VLITE	NONE
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)	150.4	151	150	149
Visc @ 100°C	cSt ASTM D7279(m)	22.28	21.9	21.8	21.8
Viscosity Index (VI)	Scale ASTM D2270*	176	171	171	172

SAMPLE IMAGES

