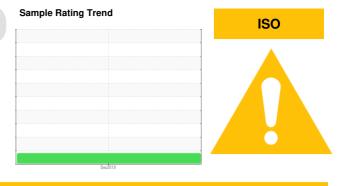


PROBLEM SUMMARY

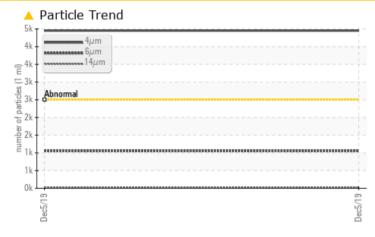


PNETECH CAMPTUR1LUB

Turbine

PETRO CANADA PREMIUM R&O 32 (--- LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST	RESULTS			
Sample Status			ATTENTION	
Particles >4µm	ASTM D7647	>2500	<u> </u>	
Particles >6µm	ASTM D7647	>640	<u> </u>	
Oil Cleanliness	ISO 4406 (c)	>18/16/13	A 19/17/12	

Customer Id: PET412PET Sample No.: WC0373484 Lab Number: 02325508 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

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

RECOMMENDED A	CTIONS			
Action	Status	Date	Done By	Description
Change Filter	MISSED	Dec 24 2020	?	We recommend you service the filters on this component.
Information Required	MISSED	Dec 24 2020	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

ISO

PNETECH CAMPTUR1LUB

Turbine

PETRO CANADA PREMIUM R&O 32 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

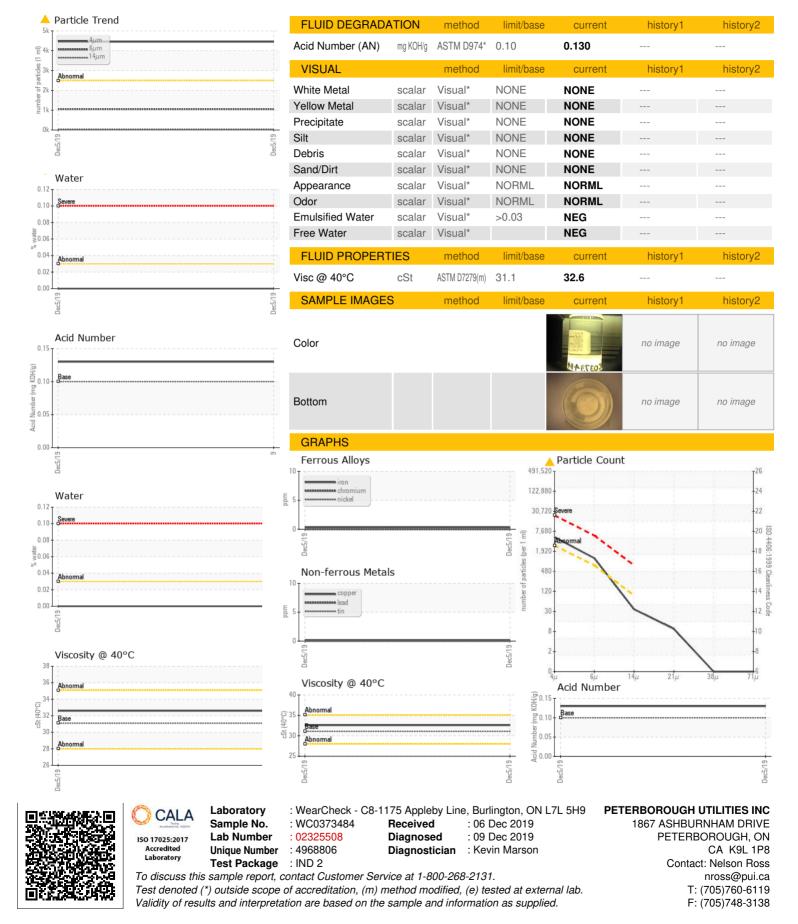
Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0373484		
Sample Date		Client Info		05 Dec 2019		
Machine Age	hrs	Client Info		194203		
Oil Age	hrs	Client Info		71763		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>15	<1		
Chromium	ppm	ASTM D5185(m)	>4	0		
Nickel	ppm	ASTM D5185(m)	>2	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	0		
Lead	ppm	ASTM D5185(m)		0		
Copper	ppm	ASTM D5185(m)	>5	<1		
Tin	ppm	ASTM D5185(m)	>5	0		
Antimony	ppm	ASTM D5185(m)		<1		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1		
Barium	ppm	ASTM D5185(m)		0		
Markels also and a second	ppm	ASTM D5185(m)		0		
Molybaenum	ppin	()				
•	ppm	ASTM D5185(m)		0		
Manganese		. ,		0 <1		
Manganese Magnesium	ppm	ASTM D5185(m)		-		
Manganese Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0	<1		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	<1 <1		
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	<1 <1 2		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 2 <1		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 <1 2 <1 16		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	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 limit/base	<1 <1 2 <1 16 <1	 	
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	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 limit/base	<1 <1 2 <1 16 <1 current	 history1	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	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) Method ASTM D5185(m)	0 limit/base	<1 <1 2 <1 16 <1 current <1	 history1 	 history2
	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 limit/base >15	<1 <1 2 <1 16 <1 current <1 <1	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	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) ASTM D5185(m)	0 limit/base >15 >20	<1 <1 2 <1 16 <1 current <1 <1 <1 <1	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base >15 >20 >0.03	<1 <1 2 <1 16 <1 current <1 <1 <1 <1 0.00	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5304*	0 limit/base >15 >20 >0.03 >300	<1 <1 2 <1 16 <1 current <1 <1 <1 <1 <1 0.00 0.00	 history1 	 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304*	0 limit/base >15 >20 >0.03 >300 limit/base	<1 <1 2 <1 16 <1	 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	0 limit/base >15 >20 >0.03 >300 limit/base >2500	<1 <1 2 <1 16 <1 16 <1 1 <1 <1 <1 <1 <1 <1 0.00 0.00 current ▲ 4452	 history1 history1 	 history2 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	0 limit/base >15 >20 >20 >300 limit/base >2500 >640 >80	<1 <1 <1 2 <1 16 <1 <1 <1 <1 <1 <1 <1 0.00 0.00 0.00 current 4452 1054 	 history1 history1 	 history2 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647	0 limit/base >15 >20 >20 >300 limit/base >2500 >640 >80	<1 <1 2 <1 16 <1 <1 <1 <1 <1 <1 0.00 0.00 current 4452 1054 31 	 history1 history1 history1	 history2 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 limit/base >15 >20 >0.03 >300 limit/base >2500 >640 >80 >20 >20	<1 <1 2 <1 16 <1 <1 <1 <1 <1 <1 0.00 0.00 0.00 current 4452 1054 31 8 	 history1 history1 history1	 history2 history2 history2



OIL ANALYSIS REPORT



Contact/Location: Nelson Ross - PET412PET