

## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

### Machine Id NORD B67951 NC-SM-SA

Component Gearbox Fluid PETRO CANADA 220 (--- GAL)

#### DIAGNOSIS

#### A Recommendation

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

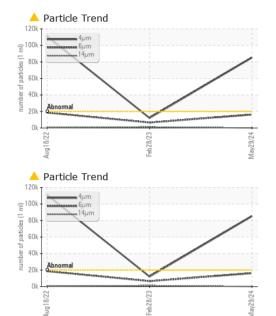
		Aug2022 Feb2023 Mag2024					
SAMPLE INFORM		method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0866806	WC0736024	WC0592513	
Sample Date		Client Info		29 May 2024	28 Feb 2023	18 Aug 2022	
Machine Age	hrs	Client Info		0	0	0	
Oil Age	hrs	Client Info		0	0	0	
Oil Changed		Client Info		- Not Changd	Not Changd	Not Changd	
Sample Status				ABNORMAL	ATTENTION	ABNORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
ron	ppm	ASTM D5185m	>200	23	17	3	
Chromium	ppm	ASTM D5185m	>15	0	0	0	
Nickel	ppm	ASTM D5185m	>15	0	<1	0	
Titanium	ppm	ASTM D5185m		0	<1	0	
Silver	ppm	ASTM D5185m		0	0	0	
Aluminum	ppm	ASTM D5185m	>25	0	0	0	
_ead	ppm	ASTM D5185m	>100	0	0	0	
Copper	ppm	ASTM D5185m	>200	0	0	0	
Tin	ppm	ASTM D5185m	>25	0	0	0	
<b>V</b> anadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	0	<1	
Barium	ppm	ASTM D5185m		0	0	<1	
Volybdenum	ppm	ASTM D5185m		0	0	0	
Manganese	ppm	ASTM D5185m		0	<1	<1	
Vagnesium	ppm	ASTM D5185m		0	<1	0	
Calcium	ppm	ASTM D5185m		0	<1	0	
Phosphorus	ppm	ASTM D5185m		160	137	167	
Zinc	ppm	ASTM D5185m		2	3	0	
Sulfur	ppm	ASTM D5185m		814	848	789	
CONTAMINANTS	6	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	5	4	4	
Sodium	ppm	ASTM D5185m		<1	<1	1	
Potassium	ppm	ASTM D5185m	>20	0	<1	0	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2	
Particles >4µm		ASTM D7647	>20000	<u> </u>	12101	▲ 110950	
Particles >6µm		ASTM D7647	>5000	🔺 16214	6592	🔺 18589	
Particles >14µm		ASTM D7647	>640	65	1122	500	
Particles >21µm		ASTM D7647		3	9378	95	
Particles >38µm		ASTM D7647	>40	0	<b>5</b> 8	2	
Particles >71µm		ASTM D7647		0	6	0	
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>A</b> 24/21/13	21/20/17	<b>4</b> /21/16	
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		0.49	0.47		
12:56) Rev: 1		Contact/Location: CHRISTIAN POTOCNIK - BURNE					

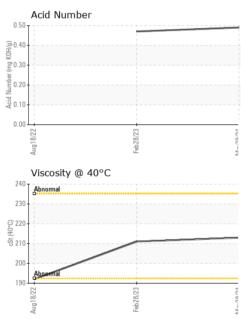
Report Id: BURNEV [WUSCAR] 06206468 (Generated: 06/13/2024 08:12:56) Rev: 1

Contact/Location: CHRISTIAN POTOCNIK - BURNEV

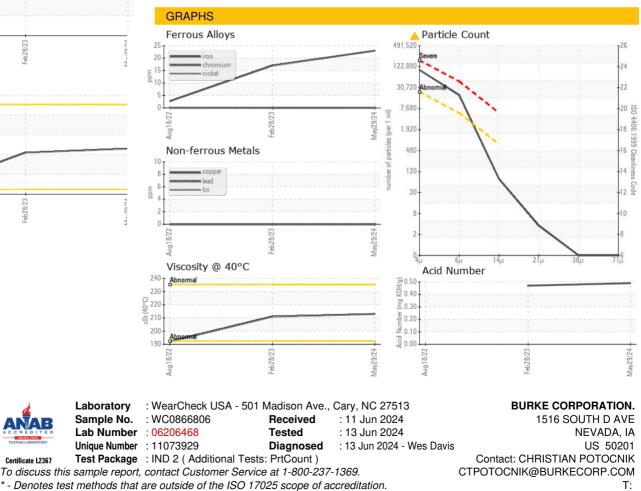


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		213	211	192
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						
Bottom						



\* - 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) F: (515)382-3955

Certificate 12367

Contact/Location: CHRISTIAN POTOCNIK - BURNEV