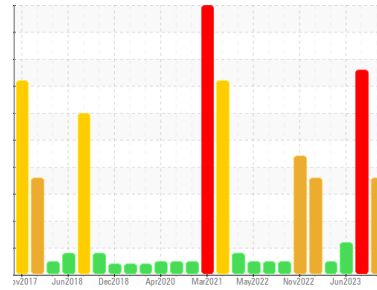




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**106 Mill**  
 Machine Id  
**106 MILL MOTOR STAND (PLS078)**  
 Component  
**Bearing Lube**  
 Fluid  
**PETRO CANADA TURBOFLO R&O 68 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. 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. Free water present.

### 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	<b>WC0837362</b>	WC0837495	WC0496455
Sample Date	Client Info	<b>06 Apr 2024</b>	24 Aug 2023	01 Jun 2023
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	SEVERE	ATTENTION

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	0	0
Iron	ppm ASTM D5185(m) >120	<b>2</b>	3	2
Chromium	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >4	<b>0</b>	0	0
Lead	ppm ASTM D5185(m) >30	<b>10</b>	26	19
Copper	ppm ASTM D5185(m) >17	<b>5</b>	3	2
Tin	ppm ASTM D5185(m) >10	<b>&lt;1</b>	5	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	3	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	<b>0</b>	<1	0
Barium	ppm ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	<1	0
Magnesium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0
Calcium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Phosphorus	ppm ASTM D5185(m) 4	<b>15</b>	16	17
Zinc	ppm ASTM D5185(m) 0	<b>9</b>	11	14
Sulfur	ppm ASTM D5185(m)	<b>190</b>	199	219
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>0</b>	0	0
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0
Potassium	ppm ASTM D5185(m) >20	<b>0</b>	<1	<1
Water	% ASTM D6304* >0.2	<b>0.008</b>	0.025	0.009
ppm Water	ppm ASTM D6304* >2000	<b>87</b>	253.5	94.5

## FLUID CLEANLINESS

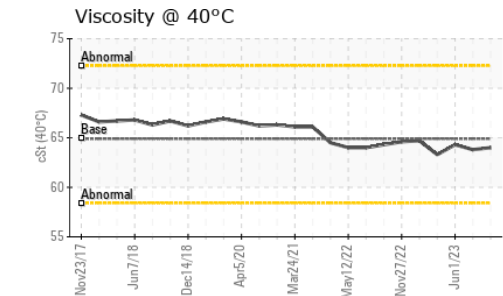
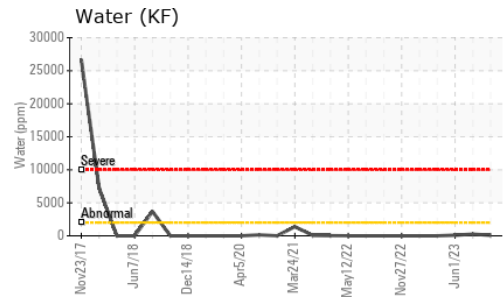
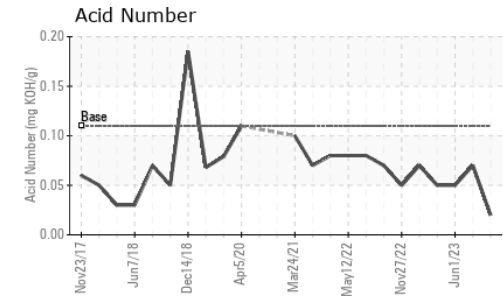
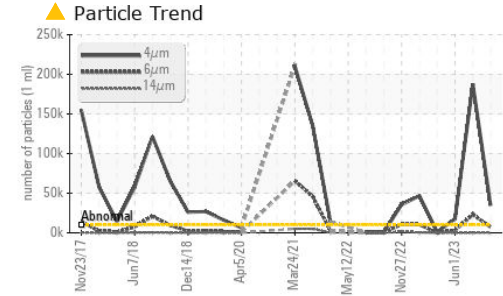
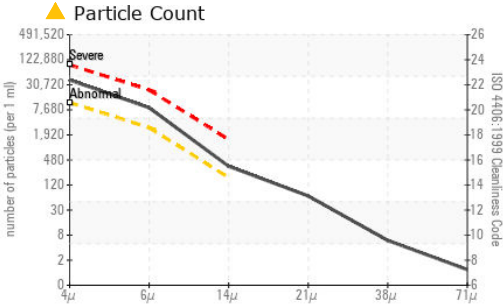
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>34703</b>	187571	17712
Particles >6µm	ASTM D7647 >2500	<b>7510</b>	22792	3150
Particles >14µm	ASTM D7647 >160	<b>298</b>	132	115
Particles >21µm	ASTM D7647 >40	<b>58</b>	13	22
Particles >38µm	ASTM D7647 >10	<b>5</b>	0	1
Particles >71µm	ASTM D7647 >3	<b>1</b>	0	0

Oil Cleanliness

ISO 4406 (c) >20/18/14 **22/20/15** 25/22/14 21/19/14



# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	<b>0.02</b>	0.07	0.05

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	LIGHT	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	▲ LIGHT	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>.2%</b>	.5%	.2%
Free Water	scalar	Visual*		▲ <b>1%</b>	▲ 1%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	64.9	<b>64.0</b>	63.8	64.3

SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color			
Bottom			
PrtFilter	no image		no image



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0837362  
**Lab Number** : 02628175  
**Unique Number** : 5761307  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount, TAN Man )

**ALGOMA STEEL INC. - STORES DEPT.**  
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 algomareliability@algoma.com  
 T: (705)206-1059  
 F: (705)945-3585

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.