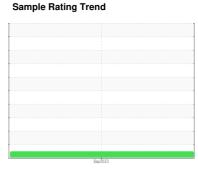


# **OIL ANALYSIS REPORT**







Machine Id 901116 Component **Natural Gas Engine** NOT GIVEN (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

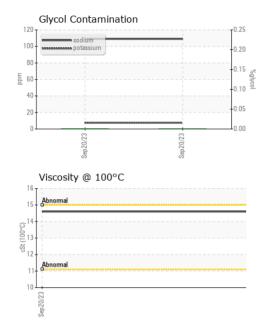
### **Fluid Condition**

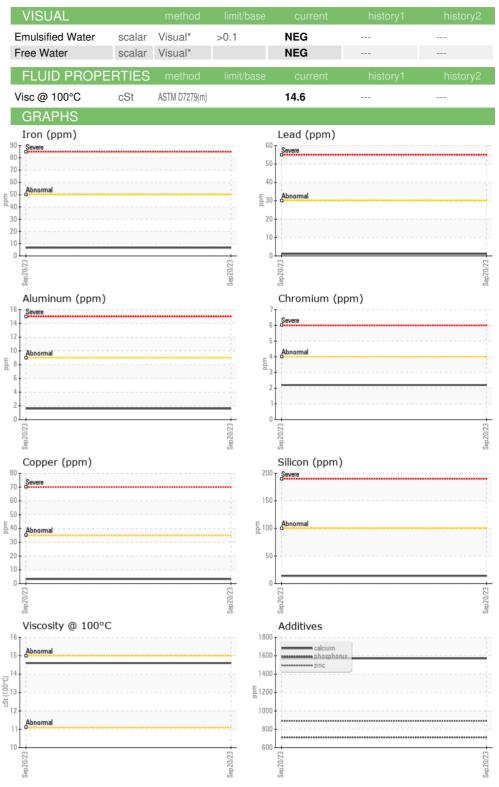
The condition of the oil is acceptable for the time in service.

				Sep2023		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084095		
Sample Date		Client Info		20 Sep 2023		
Machine Age	hrs	Client Info		15492		
Oil Age	hrs	Client Info		600		
Oil Changed	1113	Client Info		Changed		
Sample Status		Ollerit IIIIO		NORMAL		
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>50	7		
Chromium	ppm	ASTM D5185(m)	>4	2		
Nickel		ASTM D5185(m)	>2	0		
Titanium	ppm	ASTM D5185(m)	>_	0		
	ppm	. ,	. 0	_		
Silver	ppm	ASTM D5185(m)	>3	<1		
Aluminum	ppm	ASTM D5185(m)		2		
Lead	ppm	ASTM D5185(m)	>30	1		
Copper	ppm	ASTM D5185(m)		3		
Γin	ppm	ASTM D5185(m)	>4	<1		
Antimony	ppm	ASTM D5185(m)		0		
•	nnm	ASTM D5185(m)		0		
•	ppm	AOTIVI DOTOO(III)				
Vanadium	ppm	ASTM D5185(m)		0		
Vanadium Beryllium Cadmium		. ,				
Vanadium Beryllium	ppm	ASTM D5185(m)	limit/base	0		
Vanadium Beryllium Cadmium ADDITIVES	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 0		
Vanadium Beryllium Cadmium ADDITIVES Boron	ppm ppm	ASTM D5185(m) ASTM D5185(m) method	limit/base	0 0 current	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base	0 0 current	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 current 14 0	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 current 14 0 52	history1 	history2  
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1	history1	history2
Vanadium Beryllium Cadmium  ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  Method  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538	 history1   	 history2   
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  Method  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538 1571	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  Method  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538 1571 712 890	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  Method  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538 1571 712	history1	history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  METHOD  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986	history1	history2
Vanadium Beryllium Cadmium  ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)	limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1	history1	history2
Vanadium Beryllium Cadmium  ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINAN Silicon	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)		0 0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current	history1 history1	history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)	limit/base >+100	0 0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14	history1 history1	history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)	limit/base	0 0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current	history1 history1 history1	history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)	limit/base >+100 >20	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0	history1 history1	history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m)	limit/base >+100	0 0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0	history1 history1 history1 history1	history2 history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m) ASTM D7922*  method  ASTM D7844*	limit/base >+100 >20 limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0 current 0	history1 history1 history1 history1	history2 history2 history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m) ASTM D7922*  method  ASTM D7844* ASTM D7624*	limit/base >+100   >20   limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0 current 0 9.9	history1 history1 history1 history1	history2 history2 history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m) ASTM D7844* ASTM D7824* ASTM D78415*	limit/base >+100 >20 limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0 current 0	history1 history1 history1 history1	history2 history2 history2 history2 history2
Vanadium Beryllium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Glycol	ppm	ASTM D5185(m) ASTM D5185(m)  method  ASTM D5185(m) ASTM D7844* ASTM D7824* ASTM D78415*	limit/base >+100   >20   limit/base	0 0 current 14 0 52 <1 538 1571 712 890 1986 <1 current 14 109 8 0.0 current 0 9.9	history1 history1 history1 history1	history2 history2 history2 history2 history2



## **OIL ANALYSIS REPORT**







CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: GFL0084095

Test Package : MOB 1 (Additional Tests: Glycol)

: 02591374 : 5668453

Received Diagnosed Diagnostician : Wes Davis

: 24 Oct 2023 : 25 Oct 2023

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet 70 Golden Drive, Coquitlam, BC CA V3K 6B5 Contact: Gary Ewasiuk gewasiuk@gflenv.com T:

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. F: