

## **OIL ANALYSIS REPORT**

Sample Rating Trend





DIAGNOSIS

Wear

oil

Machine Id CATERPILLAR 1600G SCOOP 213 Front Differential

**DIESEL ENGINE OIL SAE 50 (--- GAL)** 

## SAMPLE INFORMATION method limit/base current history1 history2 WC0952480 WC0879708 Sample Number **Client Info** Recommendation Resample at the next service interval to monitor. 03 Jul 2024 22 Nov 2023 Sample Date Client Info 18405 0 Machine Age hrs **Client Info** All component wear rates are normal. Oil Age hrs Client Info 0 0 Oil Changed Client Info N/A Changed Contamination Sample Status ABNORMAL ABNORMAL There is no indication of any contamination in the CONTAMINATION method limit/base current history1 history2 Fluid Condition NEG Water WC Method >.2 NEG Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is WEAR METALS limit/base method current history1 history2 acceptable for the time in service. Iron ppm ASTM D5185(m) >500 5 20 Chromium ASTM D5185(m) >3 0 0 ppm Nickel 0 ppm ASTM D5185(m) >3 <1 Titanium ASTM D5185(m) >2 0 0 ppm Silver >2 0 <1 ppm ASTM D5185(m) Aluminum ppm ASTM D5185(m) >30 1 2 Lead ASTM D5185(m) >13 0 0 ppm >103 4 Copper ppm ASTM D5185(m) <1 0 Tin ASTM D5185(m) >5 0 ppm Antimony 0 0 ppm ASTM D5185(m) >5 0 Vanadium 0 ppm ASTM D5185(m) Beryllium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) **ADDITIVES** method limit/base current historv1 historv2 Boron ppm ASTM D5185(m) 250 41 24 Barium 10 0 <1 ppm ASTM D5185(m) 24 30 Molybdenum ASTM D5185(m) 100 ppm ASTM D5185(m) 0 Manganese ppm 0 Magnesium ASTM D5185(m) 450 296 431 ppm Calcium ppm ASTM D5185(m) 3000 1699 1479 Phosphorus ppm ASTM D5185(m) 1150 666 747 866 Zinc ppm ASTM D5185(m) 1350 777 Sulfur ASTM D5185(m) 4250 4025 4042 ppm Lithium ppm ASTM D5185(m) <1 <1 CONTAMINANTS method limit/base current history1 history2 7 Silicon ASTM D5185(m) >100 6 ppm 2 Sodium ppm ASTM D5185(m) 2 0 Potassium ppm ASTM D5185(m) >20 <1



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240 T Abn	cosity @ ormal	40 C		
220 -				
200 - Base				
180			 	 
160 <b>Abn</b>	ormal			
140				
120-				
100			 	 
80				
Nov22/23				

White Metal		method	limit/base	current	history1	history
	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	NONE	
Debris	scalar	Visual*	NONE	VLITE	NONE	
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history
Visc @ 40°C	cSt	ASTM D7279(m)	194	97.3	▲ 93.4	
SAMPLE IMAGE	S	method	limit/base	current	history1	history
Color						no imag
Bottom						no imag
GRAPHS						
Iron (ppm)				Lead (ppm)		
1000 Severe			30	Severe		
500 Abnormal			트 <sup>20</sup> 턴 10	Abnormal		
Nov22/23			Jul3/24	Nov22/23 -		
52			Jul	~27		
Nov				No		
					ppm)	
aluminum (ppm)				Chromium (	ppm)	
Aluminum (ppm)				Chromium (	ppm)	
Aluminum (ppm)			<u>ل</u> 5	Chromium (	ppm)	
Aluminum (ppm)			ي م	Chromium (	ppm)	
Aluminum (ppm)			<u>ل</u> 5	Chromium (	ppm)	
Aluminum (ppm)			ي م	Chromium (		
Aluminum (ppm)			ي م	Chromium (		
Aluminum (ppm) Severe phonomal 200 Copper (ppm) 200 Severe			42/200	Chromium (		
Aluminum (ppm)			42/Elul Mqg	Chromium ( Severe Abnomal EC777001 Silicon (ppm		
Aluminum (ppm)			토 5 67(200 토 100 0 0	Chromium ( Severe Abnomal Silicon (ppm		
Aluminum (ppm)			토 5 67(200 토 100 0 0	Chromium ( Severe Abnomal Silicon (ppm		
Aluminum (ppm)			472/EInf 200 4100	Chromium ( Severe Abnomal Silicon (ppm Severe Abnomal EZ7727001		
Aluminum (ppm)			토 5 67(200 토 100 0 0	Chromium ( Severe Abnomal Silicon (ppm		
Aluminum (ppm)			47/81n 47/81000000000000000000000000000000000000	Chromium ( Severe Abnomal Silicon (ppm Silicon (ppm Severe Abnomal EZZZYON Additives	)	
Aluminum (ppm)			42/EInγ 42/EInγ 42/EInγ 2000 42/EInγ 2000	Chromium ( Severe Abnomal Silicon (ppm Abnomal EZZZZYNY Additives	)	
Aluminum (ppm) Severe 40 Ahnomal 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) 200 Copper (ppm) Copper (ppm)			EL 5 0 42(2)np 42(2)np 42(2)np 42(2)np 100 1000 1000 500	Chromium ( Severe Abnomal Silicon (ppm Severe Abnomal CZZZY00 Additives	)	
Aluminum (ppm) Severe do 200 Copper (ppm) 200 Severe Copper (ppm) 200 Viscosity @ 40°C 200 Viscosity @ 40°C			لللل 5 4 4 2000 4 4 2000 2000 20	Chromium ( Severe Abnomal Silicon (ppm Silicon (ppm Severe Abnomal EZZZYON Additives	)	

To discuss this sample report, contact Customer Service at 1-800-268-2131. AEM\_KL\_macassaoilsampleresults@agnicoeagle.com 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.

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CALA

ISO 17025:2017 Accredited Laboratory

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