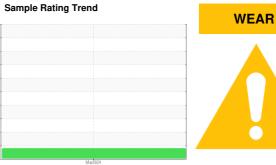


OIL ANALYSIS REPORT





CATERPILLAR AD30 TRK228

Component Rear Differential

PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

🔔 Wear

Chromium ppm levels are abnormal.

Contamination

There is no indication of any contamination in the oil.

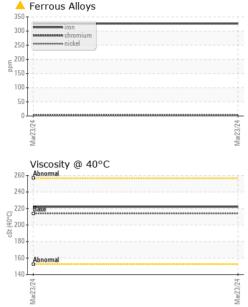
Fluid Condition

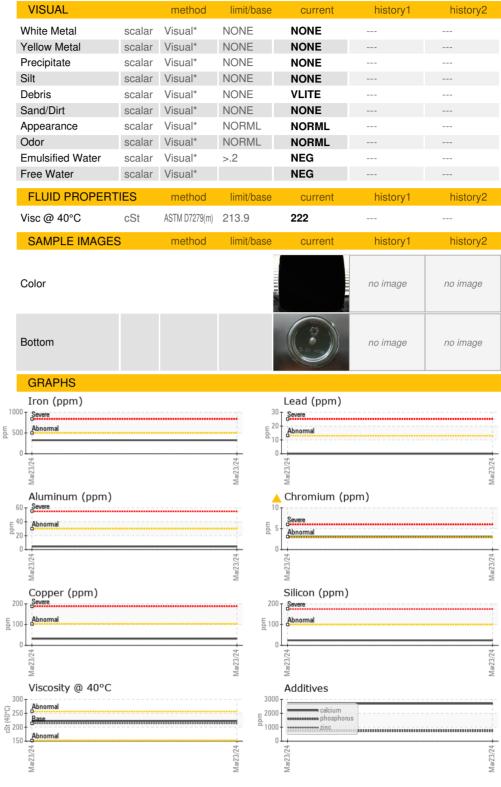
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info WC0915107 Sample Date Client Info 23 Mar 2024 Machine Age hrs Client Info 0 Oil Age hrs Client Info Changed Oil Changed Client Info Changed Sample Status ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method NEG Uron ppm ASTM D5185(m) > 3 Iron ppm ASTM D5185(m) > 3 Iron ppm ASTM D5185(m) > 0 Iron ppm ASTM D5185(m) > 0 <th>10 10 4 0AL 00 (</th> <th>GAL)</th> <th>,</th> <th></th> <th>Mar2024</th> <th></th> <th></th>	10 10 4 0AL 00 (GAL)	,		Mar2024		
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0	Sample Number		Client Info		WC0915107		
Dil Age	Sample Date		Client Info		23 Mar 2024		
Contained Collection Contained Con	Machine Age	hrs	Client Info		0		
ABNORMAL	Oil Age	hrs	Client Info		0		
Water WC Method Society Society Water WC Method Society Society Water WC Method Society Soc	Oil Changed		Client Info		Changed		
Water WC Method >.2 NEG WEAR METALS method limit/base current history1 history2 Irron ppm ASTM D5185(m) >500 326 Ohronium ppm ASTM D5185(m) >3 2 Nickel ppm ASTM D5185(m) >2 0 Titanium ppm ASTM D5185(m) >2 0 Silver ppm ASTM D5185(m) >2 0 Aluminum ppm ASTM D5185(m) >30 4 Lead ppm ASTM D5185(m) >103 32 Copper ppm ASTM D5185(m) >5 <1 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0	Sample Status				ABNORMAL		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 326 Chromium ppm ASTM D5185(m) >3 2 Nickel ppm ASTM D5185(m) >2 0 Silver ppm ASTM D5185(m) >2 0 Aluminum ppm ASTM D5185(m) >30 4 Lead ppm ASTM D5185(m) >103 32 Copper ppm ASTM D5185(m) >5 <1	CONTAMINATION		method	limit/base	current	history1	history2
Iron	Water		WC Method	>.2	NEG		
Chromium ppm ASTM D5185(m) >3 ▲ 3 Nickel ppm ASTM D5185(m) >3 2 Titanium ppm ASTM D5185(m) >2 0 Silver ppm ASTM D5185(m) >2 0 Aluminum ppm ASTM D5185(m) >30 4 Lead ppm ASTM D5185(m) >10 Copper ppm ASTM D5185(m) >103 32 Tin ppm ASTM D5185(m) >5 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185(m)	>500	326		
Description	Chromium	ppm	ASTM D5185(m)	>3	<u>^</u> 3		
Silver	Nickel	ppm	ASTM D5185(m)	>3	2		
Aluminum	Titanium	ppm	ASTM D5185(m)	>2	0		
Lead	Silver	ppm	ASTM D5185(m)	>2	0		
Copper	Aluminum	ppm	ASTM D5185(m)	>30	4		
Tin	_ead	ppm	ASTM D5185(m)	>13	0		
Antimony	Copper	ppm	ASTM D5185(m)	>103	32		
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) 2 24 Barium ppm ASTM D5185(m) 0 1 Barium ppm ASTM D5185(m) 0 2 Barium ppm ASTM D5185(m) 0 2 Wanganese ppm ASTM D5185(m) 9 9 Wanganesium ppm ASTM D5185(m) 3114 2699 Phosphorus ppm ASTM D5185(m) 1099 733 Phosphorus ppm ASTM D5185(m) 7086 10747 -	Tin	ppm	ASTM D5185(m)	>5	<1		
Description	Antimony	ppm	ASTM D5185(m)	>5	0		
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 2 24 Barium ppm ASTM D5185(m) 0 1 Molybdenum ppm ASTM D5185(m) 0 2 Manganese ppm ASTM D5185(m) 0 2 Magnesium ppm ASTM D5185(m) 9 9 Calcium ppm ASTM D5185(m) 3114 26999 Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) >1	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES	Beryllium	ppm	ASTM D5185(m)		0		
Boron ppm ASTM D5185(m) 2 24 Barium ppm ASTM D5185(m) 0 1 Molybdenum ppm ASTM D5185(m) 0 < 1 Manganese ppm ASTM D5185(m) 0 2 Magnesium ppm ASTM D5185(m) 9 9 Magnesium ppm ASTM D5185(m) 3114 2699 Magnesium ppm ASTM D5185(m) 1099 733 Magnesium ppm ASTM D5185(m) 1245 797 Magnesium Ppm ASTM D5185(m) 1245 797 Magnesium Ppm ASTM D5185(m) 7086 10747 Magnesium Ppm ASTM D5185(m) <1 Magnesium Ppm ASTM D5185(m) <1 Magnesium Ppm ASTM D5185(m) <1 Magnesium Ppm ASTM D5185(m) >100 24 Magnesium Magnesium Ppm ASTM D5185(m) 20 Magnesium Ppm ASTM D5185(m) >100 24 Magnesium Magnesium Ppm ASTM D5185(m) 20 Magnesium Ppm ASTM D5185(m) >100 24 Magnesium Magnesium Ppm ASTM D5185(m) 20 Magnesium Magnesi	Cadmium	ppm	ASTM D5185(m)		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185(m) 0 <1 Manganese ppm ASTM D5185(m) 0 2 Magnesium ppm ASTM D5185(m) 9 9 Calcium ppm ASTM D5185(m) 3114 2699 Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1	Boron	ppm	ASTM D5185(m)	2	24		
Manganese ppm ASTM D5185(m) 0 2 Magnesium ppm ASTM D5185(m) 9 Calcium ppm ASTM D5185(m) 3114 2699 Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1	Barium	ppm	ASTM D5185(m)	0	1		
Magnesium ppm ASTM D5185(m) 9 9 Calcium ppm ASTM D5185(m) 3114 2699 Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1	Molybdenum	ppm	ASTM D5185(m)	0	<1		
Calcium ppm ASTM D5185(m) 3114 2699 Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1	Manganese	ppm	ASTM D5185(m)	0	2		
Phosphorus ppm ASTM D5185(m) 1099 733 Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >100 24 Sodium ppm ASTM D5185(m) 2	Magnesium	ppm	ASTM D5185(m)	9	9		
Zinc ppm ASTM D5185(m) 1245 797 Sulfur ppm ASTM D5185(m) 7086 10747	Calcium	ppm	ASTM D5185(m)	3114	2699		
Sulfur ppm ASTM D5185(m) 7086 10747 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >100 24 Sodium ppm ASTM D5185(m) 2	Phosphorus	ppm	ASTM D5185(m)	1099	733		
Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >100 24 Sodium ppm ASTM D5185(m) 2	Zinc	ppm	ASTM D5185(m)	1245	797		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >100 24 Sodium ppm ASTM D5185(m) 2	Sulfur	ppm	ASTM D5185(m)	7086	10747		
Silicon ppm ASTM D5185(m) >100 24 Sodium ppm ASTM D5185(m) 2	Lithium	ppm	ASTM D5185(m)		<1		
Sodium ppm ASTM D5185(m) 2	CONTAMINANTS	3	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>100	24		
Potassium ppm ASTM D5185(m) >20 <1	Sodium	ppm	ASTM D5185(m)		2		
	Potassium	ppm	ASTM D5185(m)	>20	<1		



OIL ANALYSIS REPORT









Laboratory

Laboratory Sample No.

Lab Number

Unique Number : 5749889

: WC0915107 : 02624770

Test Package : MOB 1

Validity of results and interpretation are based on the sample and information as supplied.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : 26 Mar 2024 Received **Tested** : 26 Mar 2024 Diagnosed

: 26 Mar 2024 - Kevin Marson

Agnico Eagle Canada 1350 Government Rd. W, MACASSA COMPLEX

Kirkland Lake, ON CA P2N 3J1

Contact: Mitch Lamontagne $AEM_KL_macassao il samplere sults@agnico eagle.com$

T: (705)567-5208

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.

F: (705)567-5221