

OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Machine Id

HEAT TRANSFER DEPOSIT

Component Heat Transfer Fluid Fluid PETRO CANADA CALFLO AF (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. Diagnostician's Note: This is likely oxipolymerized heat transfer fluid and corrosive iron.

🛑 Wear

Iron ppm levels are noted.

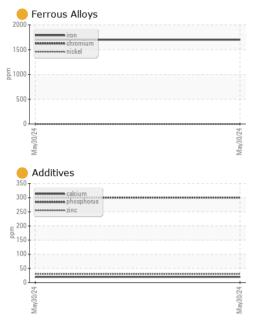
Fluid Condition

Sulfur and phosphorus ppm levels are notably high.

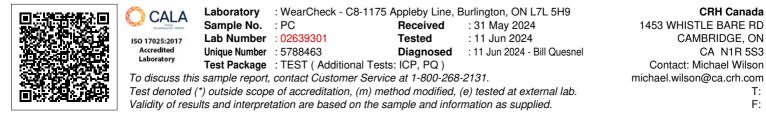
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC		
Sample Date		Client Info		30 May 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ATTENTION		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.0601	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	— 1700		
Chromium	ppm	ASTM D5185(m)	>21	0		
Nickel	ppm	ASTM D5185(m)	>21	0		
Titanium	ppm	ASTM D5185(m)	>21	0		
Silver	ppm	ASTM D5185(m)	>21	0		
Aluminum	ppm	ASTM D5185(m)	>21	<1		
Lead	ppm	ASTM D5185(m)	>21	20		
Copper	ppm	ASTM D5185(m)	>21	30		
Tin	ppm	ASTM D5185(m)	>21	<1		
Antimony	ppm	ASTM D5185(m)	>21	0		
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)	0	<1		
Boron Barium	ppm ppm		0			
			0	<1		
Barium	ppm	ASTM D5185(m)	0 0 0	<1 0		
Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0 0		
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 0 0 <1		
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 0 0 <1 <1		
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0	<1 0 0 <1 <1 20	 	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 0 270	<1 0 0 <1 <1 20 • 300		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 270 0	<1 0 <1 <1 20 300 30		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 270 0	<1 0 0 <1 <1 20 300 30 30 520 <1		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 270 0 10	<1 0 0 <1 <1 20 300 30 30 520 <1		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	0 0 0 0 0 270 0 10 10	<1 0 0 <1 <1 20 300 30 520 <1 current		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	0 0 0 0 0 270 0 10 10 limit/base	<1 0 0 <1 <1 20 300 30 30 520 <1 current 0	 history1	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 limit/base >25 >21	<1 0 0 <1 <1 20 300 30 30 520 <1 current 0 60 <1	 history1	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 limit/base >25 >21 >20	<1 0 0 <1 <1 20 300 30 30 520 <1 current 0 60 <1	 history1 	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 225 >25 >21 >20 limit/base	<1 0 0 <1 <1 20 300 30 520 <1 current 0 60 <1 current	 history1 history1	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 	<1 0 0 <1 <1 20 300 30 520 <1 Current 0 60 <1 Current NONE	 history1 history1 history1	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ypm y	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 225 >21 >20 1 imit/base >20 1 NONE NONE	<1 0 0 <1 <1 20 300 30 520 <1 current 0 60 <1 current NONE NONE	 history1 history1 history1	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ypm y	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 270 0 10 10 10 10 225 >21 >20 1 imit/base >20 1 imit/base NONE NONE NONE	<1 0 0 <1 <1 20 300 30 520 <1 <i>current</i> 0 60 <1 <i>current</i> NONE NONE NONE	 history1 history1	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual*	0 0 0 0 270 0 270 0 10 10 10 225 >25 >21 >20 limit/base NONE NONE NONE NONE	<1 0 0 <1 <1 20 300 30 520 <1 current 0 60 <1 current NONE NONE NONE NONE NONE		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual*	0 0 0 0 270 0 270 0 10 10 10 270 0 270 0 10 270 20 20 20 20 20 20 20 20 20 20 20 20 20	<1 0 0 <1 <1 20 300 30 520 <1 current 0 60 <1 current NONE NONE NONE NONE NONE NONE NONE		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual* Visual*	0 0 0 0 270 0 270 0 10 10 10 225 >21 >21 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	<1 0 0 <1 <1 20 300 30 520 <1 current 0 60 <1 current NONE NONE NONE NONE NONE NONE NONE		



OIL ANALYSIS REPORT



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



Report Id: CRHCAM [WCAMIS] 02639301 (Generated: 06/11/2024 15:47:55) Rev: 1

Contact/Location: Michael Wilson - CRHCAM Page 2 of 2

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