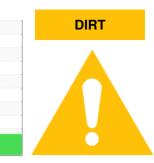


OIL ANALYSIS REPORT



Machine Id **2227006** Component **Transmission (Manual)** Fluid **{not provided} (--- QTS)**

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

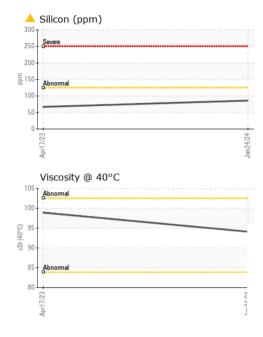
Fluid Condition

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

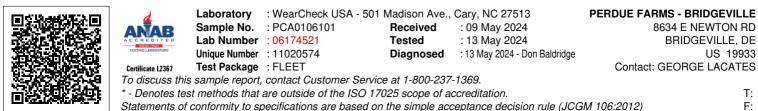
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0106101	PCA0095537	
Sample Date		Client Info		24 Jan 2024	17 Apr 2023	
Machine Age	mls	Client Info		66575	30298	
Oil Age	mls	Client Info		66575	0	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				ABNORMAL	ABNORMAL	
CONTAMINAT	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	78	52	
Chromium	ppm	ASTM D5185m	>5	1	<1	
Nickel	ppm	ASTM D5185m	>5	1	<1	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>7	0	0	
Aluminum	ppm	ASTM D5185m	>25	8	4	
Lead	ppm	ASTM D5185m	>45	<1	0	
Copper	ppm	ASTM D5185m	>225	110	55	
Tin	ppm	ASTM D5185m	>10	<1	0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron						
	ppm	ASTM D5185m		11	1	
	ppm ppm	ASTM D5185m ASTM D5185m		11 0	1 0	
Barium						
Barium Molybdenum	ppm	ASTM D5185m		0	0	
Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		0 2	0 0	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30	0 0 25	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30 3	0 0 25 1	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30 3 1021	0 0 25 1 846	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30 3 1021 908	0 0 25 1 846 704	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 2 30 3 1021 908 35	0 0 25 1 846 704 11	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30 3 1021 908 35 6488	0 0 25 1 846 704 11 5378	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 2 30 3 1021 908 35 6488 current	0 0 25 1 846 704 11 5378 history1	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>125	0 2 30 3 1021 908 35 6488 current ▲ 86	0 0 25 1 846 704 11 5378 history1 ▲ 67	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>125	0 2 30 3 1021 908 35 6488 <u>current</u> ▲ 86 2	0 0 25 1 846 704 11 5378 history1 ▲ 67 3	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>125 >20	0 2 30 3 1021 908 35 6488 <u>current</u> ▲ 86 2 2 2	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 3 <1	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>125 >20 limit/base	0 2 30 3 1021 908 35 6488 <i>current</i> ▲ 86 2 2 2	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 +	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m XFM D5185m	>125 >20 limit/base NONE	0 2 30 3 1021 908 35 6488 current ▲ 86 2 2 2 current NONE	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 4 67 3 3 <1 8 NONE NONE NONE NONE NONE	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m Yisual	>125 >20 limit/base NONE NONE	0 2 30 3 1021 908 35 6488 <u>current</u> ▲ 86 2 2 2 2 <u>current</u> NONE NONE	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 4 A 67 3 <1 A A A A A A A A A A A A A A A A A A	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m Yisual	>125 >20 limit/base NONE NONE NONE	0 2 30 3 1021 908 35 6488 current ▲ 86 2 2 2 2 current NONE NONE NONE	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 4 67 3 3 <1 8 NONE NONE NONE NONE NONE	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual *Visual *Visual *Visual	>125 >20 limit/base NONE NONE NONE NONE	0 2 30 3 1021 908 35 6488 <i>current</i> 86 2 2 2 <i>current</i> NONE NONE NONE NONE NONE	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 4 A 67 3 <1 A A A A A A A A A A A A A A A A A A	 history2 history2 <li< td=""></li<>
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>125 >20 limit/base NONE NONE NONE NONE NONE	0 2 30 3 1021 908 35 6488 <i>current</i> 86 2 2 2 <i>current</i> NONE NONE NONE NONE NONE NONE NONE	0 0 25 1 846 704 11 5378 history1 67 3 <1 67 3 <1 NONE NONE NONE NONE NONE NONE NONE NON	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur 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 D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>125 >20 Iimit/base NONE NONE NONE NONE NONE NONE	0 2 30 3 1021 908 35 6488 <i>current</i> 86 2 2 2 <i>current</i> NONE NONE NONE NONE NONE LIGHT NONE	0 0 25 1 846 704 11 5378 history1 67 3 <1 67 3 <1 NONE NONE NONE NONE NONE NONE NONE NO	 history2 history2 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>125) 20 Iimit/base NONE NONE NONE NONE NONE NONE NONE	0 2 30 3 1021 908 35 6488 current 86 2 2 2 current NONE NONE NONE NONE LIGHT NONE NONE NONE	0 0 25 1 846 704 11 5378 history1 67 3 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	 history2 history2 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>125 20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	0 2 30 3 1021 908 35 6488 current ▲ 86 2 2 2 current NONE NONE NONE NONE NONE NONE NONE NO	0 0 25 1 846 704 11 5378 history1 ▲ 67 3 <1 ▲ 67 3 <1 ▲ 67 3 <1 ▲ 67 3 () ▲ 67 3 () ▲ 1 ▲ 1	 history2 history2



OIL ANALYSIS REPORT



FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		94.1	98.9	
SAMPLE IMAG	GES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						
Ferrous Alloys	ls		Jan 24/24			
Viscosity @ 40°C			Jan 24,24			
Abnormal						
2 2 2 3 3 4						
Abnormal						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: Jeffrey Mitchell Page 2 of 2