

## **OIL ANALYSIS REPORT**







Machine Id MIDSTATE Component

Transmission (Auto)

HERCULINE MULTIPURPOSE ATF (--- QTS)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the fluid.

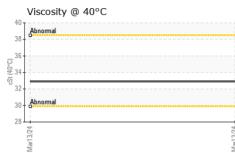
#### Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093000		
Sample Date		Client Info		13 Mar 2024		
Machine Age	mths	Client Info		1		
Oil Age	mths	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	36		
Chromium	ppm	ASTM D5185m	>5	0		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>5	0		
Aluminum	ppm	ASTM D5185m	>50	7		
Lead	ppm	ASTM D5185m	>50	2		
Copper	ppm	ASTM D5185m	>225	5		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		48		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		<1		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		8		
Calcium	ppm	ASTM D5185m		133		
Phosphorus	ppm	ASTM D5185m		161		
Zinc	ppm	NOTIVI DOTOOIII		101		
	nnm	ASTM D5185m		56		
	ppm	ASTM D5185m		56 1249		
Sulfur	ppm	ASTM D5185m		56 1249		
Sulfur CONTAMINAN	ppm	ASTM D5185m method	limit/base			
Sulfur	ppm	ASTM D5185m	limit/base	1249 current 6		
Sulfur CONTAMINAN	ppm FS	ASTM D5185m method		1249 current	  history1	 history2
Sulfur CONTAMINANT Silicon	ppm FS ppm	ASTM D5185m method ASTM D5185m		1249 current 6	  history1 	 history2 
Sulfur CONTAMINANT Silicon Sodium	ppm FS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	>20	1249 current 6 17	 history1 	 history2 
Sulfur CONTAMINANT Silicon Sodium Potassium	ppm FS ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20	1249 current 6 17 0	 history1  	 history2  
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL	ppm FS ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>20 >20 limit/base	1249 current 6 17 0 current	 history1   history1	 history2   history2
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal	ppm Ppm ppm ppm scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual	>20 >20 limit/base NONE	1249 current 6 17 0 current NONE	 history1   history1 	 history2   history2
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	>20 >20 limit/base NONE NONE	1249 current 6 17 0 current NONE NONE	 history1   history1 	 history2   history2 
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE	 history1   history1  	 history2   history2 
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE NONE	 history1   history1  	 history2   history2  
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 limit/base NONE NONE NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE NONE NONE	 history1   history1   	 history2   history2   
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm pm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Imit/base NONE NONE NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE NONE NONE NONE	 history1   history1   	 history2   history2     
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE NONE NONE NONE NONE NON	 history1   history1    	 history2   history2        -
Sulfur CONTAMINANT Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE	1249 current 6 17 0 current NONE NONE NONE NONE NONE NONE NONE NON	 history1   history1      	 history2   history2        -



# **OIL ANALYSIS REPORT**



	FLUID PROP isc @ 40°C	cSt	method ASTM D44	limit/ba 5		current 32.9	history1	history2
	SAMPLE IMA		method	limit/ba	ase	current	history1	history2
		alo						
с	olor					no image	no image	no image
Mari 3/24								
_								
В	ottom					no image	no image	no image
- 8	GRAPHS							
300 <del>-</del>	Iron (ppm)				120-	Lead (ppm)		
250-	Severe				100-	Severe		
200-	Abnormal				80.			
튭 150 - 100 -					편 60 · 40 ·	Abnormal		
50-					20-			
0	24			24 + -	0-	124		ŝ
	Mar13/24			Mar13/24		Mar13/24		
100 <del>-</del>	Aluminum (ppm	)			12	Chromium (p	pm)	
80	Severe				10-	Severe		
60-	Abnormal				_ 8.			
Ed 40-					udd 6.	Abnormal		
20 -					2.			
0	/24			/24	0-	/24		ŝ
	Mar13/24			Mar13/24		Mar13/24		
500 <del>-</del>	Copper (ppm)				40-	Silicon (ppm)		
400-	Severe			-	30.	Severe		
e 300-						Abnormal		
200 -	Abnormal				묩 20 -	- 0		
100-					10-			
01	3/24			3/24	0.	3/24		2
	Mar13/24			Mar13/24		Mar13/24		
40 <del>т</del>	Viscosity @ 40°C	2			250-	Additives		
38-	Abnormal				200-	calcium phosphor	a	
(0.06) 36 - (0.06) 34 - 150 32 -					표 150 ·	ZINC		
32 ST								
30 -	Abnormal			-	100-			
28	3/24 +			3/24 -	50-	3/24		ŝ
	Mar13/24			Mar13/24		Mar13/24		
<b>y</b> :We	earCheck USA - 5 A0093000 <mark>121228</mark> 930061	Rece Teste	ived : ed :		24 24	242		N ILLINOIS D HANNAHON, US 604 <sup>-</sup>
ige : MC		-					Contact: S	ervice Manage

Contact/Location: Service Manager - PRECHAIL