

## Machine Id 2227111 Compone **Front Differential** GEAR OIL SAE 75W90 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

## WEAR

All component wear rates are normal.

## CONTAMINATION

There is no indication of any contamination in the oil.

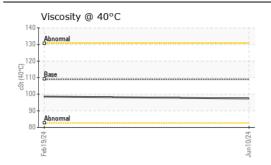
## **FLUID CONDITION**

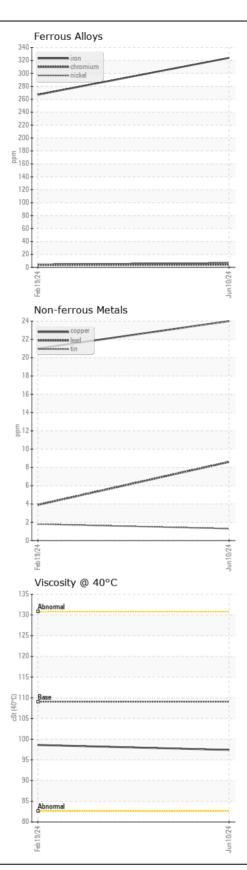
The condition of the oil is acceptable for the time in service.

TestUOMMethodLimit/AbCurrentHistory1History2Sample NumberClient InfoPCA0128343PCA0119545Sample DateClient InfoI0 Jun 202419 Feb 2024Machine AgemlsClient Info4100621063Oil AgemlsClient Info4100621063Filter AgemlsClient Info4100621063Oil ChangedClient InfoMot ChangdNot ChangdFilter ChangedClient InfoNot ChangdNot ChangdFilter ChangedSample StatusS5003242667IronppmASTM D5185m>5003242667NickelppmASTM D5185m>1044NickelppmASTM D5185m>1075SilverppmASTM D5185m>2594AuminumppmASTM D5185m>2594VanadiumppmASTM D5185m>1012Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>203<1Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>203<1SiliconppmASTM D5185m>203<1<							
Sample DateClient InfoID Jun 202419 Feb 2024Machine AgemlsClient Info410060Oil AgemlsClient Info4100621063Filter AgemlsClient Info4100621063Oil ChangedClient InfoNot ChangdNot ChangdFilter ChangedClient InfoNot ChangdNot ChangdSample StatusClient InfoNot ChangdNot ChangdIronppmASTM D5185m>5003242677ChromiumppmASTM D5185m>1044NickelppmASTM D5185m>1075SilverppmASTM D5185m>2594AluminumppmASTM D5185m>2594AluminumppmASTM D5185m>102421VanadiumppmASTM D5185m>1012VanadiumppmASTM D5185m>1012VanadiumppmASTM D5185m>7540411SiliconppmASTM D5185m>7540411Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>7540411PotassiumppmASTM D5185m>203<1 <th>Test</th> <th>UOM</th> <th>Method</th> <th>Limit/Abn</th> <th>Current</th> <th>History1</th> <th>History2</th>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age Oil AgemlsClient Info410060Oil Age Filter AgemlsClient Info4100621063Filter AgemlsClient Info4100621063Oil ChangedClient InfoNot ChangdNot ChangdFilter ChangedClient InfoNot ChangdNot ChangdSample StatusClient InfoNot ChangdNot ChangdIronppmASTM D5185m>5003242677ChromiumppmASTM D5185m>1044NickelppmASTM D5185m>1075SilverppmASTM D5185m>2544AluminumppmASTM D5185m>2594LeadppmASTM D5185m>2594VanadiumppmASTM D5185m>1012VanadiumppmASTM D5185m>1012YanadiumppmASTM D5185m>7540411SiliconppmASTM D5185m>7540411Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>7540411PotassiumppmASTM D5185m>203<1Siliconscalar*VisualNONENONE <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>PCA0128343</th> <th>PCA0119545</th> <th></th>	Sample Number		Client Info		PCA0128343	PCA0119545	
Oil AgemlsClient Info4100621063Filter AgemlsClient Info4100621063Oil ChangedClient InfoNot ChangdNot ChangdFilter ChangedClient InfoNot ChangdNot ChangdSample StatusVolt ChangedNot ChangdNot ChangdIronppmASTM D5185m>500 <b>324</b> 2677ChromiumppmASTM D5185m>10 <b>4</b> 4NickelppmASTM D5185m>10 <b>7</b> 5TitaniumppmASTM D5185m>25 <b>4</b> 4AluminumppmASTM D5185m>25 <b>9</b> 4AluminumppmASTM D5185m>10012YanadiumppmASTM D5185m>10012YanadiumppmASTM D5185m>7012YanadiumppmASTM D5185m>7012Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>724041Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>203<1PotassiumppmASTM D5185m>203<1Siliconscalar*VisualNONE <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>10 Jun 2024</th> <th>19 Feb 2024</th> <th></th>	Sample Date		Client Info		10 Jun 2024	19 Feb 2024	
Filter Age  mis  Client Info  41006  21063     Gil Changed  Client Info  Not Changd  Not Changd     Filter Changed  Client Info  Not Changd  Not Changd     Sample Status  Vient Info  Not RMAL  ABNORMAL     Iron  ppm  ASTM D5185m  >500  324  267     Chromium  ppm  ASTM D5185m  >10  4  4     Nickel  ppm  ASTM D5185m  >10  7  5     Aluminum  ppm  ASTM D5185m  >25  4  4     Aluminum  ppm  ASTM D5185m  >25  9  4     Aluminum  ppm  ASTM D5185m  >25  9  4     Aluminum  ppm  ASTM D5185m  >10  1  2     Aluminum  ppm  ASTM D5185m  >10  1  2     Vanadium  ppm  ASTM D5185m  >10  1  2 <th>Machine Age</th> <th>mls</th> <th>Client Info</th> <th></th> <th>41006</th> <th>0</th> <th></th>	Machine Age	mls	Client Info		41006	0	
Oil ChangedClient InfoNot ChangdNot ChangdFilter ChangedClient InfoNot ChangdNot ChangdSample StatusNORMALABNORMALIronppmASTM D5185m>500324267ChromiumppmASTM D5185m>1044NickelppmASTM D5185m>1075TitaniumppmASTM D5185m>2544NuminumppmASTM D5185m>2594AluminumppmASTM D5185m>2594LeadppmASTM D5185m>10024211TinppmASTM D5185m>10012VanadiumppmASTM D5185m>10010White Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>203<1VaterWC Method>.2NEGNONESiliconppmASTM D5185m>203<1Suitscalar*VisualNONENONENONESuitscalar*VisualNONENONESuitscalar*VisualNONENONESuitonppmASTM D5185m>203<1Suitonscalar*VisualNONENONESuitonscalar*Visual	Oil Age	mls	Client Info		41006	21063	
Filter Changed Sample Status    Client Info    Not Changd Not Changd    Not Changd ABNORMAL	Filter Age	mls	Client Info		41006	21063	
Sample StatusNORMALABNORMALIronppmASTM D5185m>500324267ChromiumppmASTM D5185m>1044NickelppmASTM D5185m>1075TitaniumppmASTM D5185m>1075SilverppmASTM D5185m>2544AluminumppmASTM D5185m>2594LeadppmASTM D5185m>10024211CopperppmASTM D5185m>10012VanadiumppmASTM D5185m>1012VanadiumppmASTM D5185m>1012Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>7540411Yellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>203<1Silitscalar*VisualNONENONENONESoldurppmASTM D5185m>203<1Qandriberscalar*VisualNONENONENONESilitscalar*VisualNONENONENONEQdorscalar*VisualNORMLNORML <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Not Changd</th><th>Not Changd</th><th></th></t<>	Oil Changed		Client Info		Not Changd	Not Changd	
Iron    ppm    ASTM D5185m    >500    324    267       Chromium    ppm    ASTM D5185m    >10    4    4       Nickel    ppm    ASTM D5185m    >10    7    5       Titanium    ppm    ASTM D5185m    >10    7    5       Silver    ppm    ASTM D5185m    >25    4    4       Aluminum    ppm    ASTM D5185m    >25    9    4       Lead    ppm    ASTM D5185m    >25    9    4       Copper    ppm    ASTM D5185m    >100    24    21       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    1    2       Vendettal    scalar    *Visual    NONE    NONE    NONE       Yellow Metal    scalar    *Visual    NONE </th <th>Filter Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Not Changd</th> <th>Not Changd</th> <th></th>	Filter Changed		Client Info		Not Changd	Not Changd	
Chromium    ppm    ASTM D5185m    >10    4    4       Nickel    ppm    ASTM D5185m    >10    7    5       Titanium    ppm    ASTM D5185m    >10    7    5       Silver    ppm    ASTM D5185m    >10    7    5       Aluminum    ppm    ASTM D5185m    >25    4    4       Lead    ppm    ASTM D5185m    >25    9    4       Copper    ppm    ASTM D5185m    >100    24    21       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    0    0       Vanadium    ppm    ASTM D5185m    >75    40    411       Yellow Metal    scalar    *Visual    NONE    NONE    NONE       Silicon    ppm    ASTM D5185m    >20 <th>Sample Status</th> <th></th> <th></th> <th></th> <th>NORMAL</th> <th>ABNORMAL</th> <th></th>	Sample Status				NORMAL	ABNORMAL	
Chromium    ppm    ASTM D5185m    >10    4    4       Nickel    ppm    ASTM D5185m    >10    7    5       Titanium    ppm    ASTM D5185m    >10    7    5       Silver    ppm    ASTM D5185m    >0    0       Aluminum    ppm    ASTM D5185m    >25    4    4       Lead    ppm    ASTM D5185m    >25    9    4       Copper    ppm    ASTM D5185m    >100    24    21       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >75    40    411       Yellow Metal    scalar    *Visual    NONE    NONE	Iron	nom	ASTM D5185m	>500	304	267	
Nickel    ppm    ASTM D5185m    >10    7    5       Titanium    ppm    ASTM D5185m     <1    <1       Silver    ppm    ASTM D5185m     0    0       Aluminum    ppm    ASTM D5185m    >25    4    4       Lead    ppm    ASTM D5185m    >25    9    4       Copper    ppm    ASTM D5185m    >100    24    21       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    0    0       Vanadium    ppm    ASTM D5185m    >10    1    2       Vanadium    ppm    ASTM D5185m    >10    0    0       Valew    scalar    *Visual    NONE    NONE    NONE       Silicon    ppm    ASTM D5185m    >20    <	-				-		
Titanium    ppm    ASTM D5185m    <1					-		
Silver    ppm    ASTM D5185m    > 25    4    4       Aluminum    ppm    ASTM D5185m    > 25    4    4       Lead    ppm    ASTM D5185m    > 25    9    4       Copper    ppm    ASTM D5185m    > 100    24    21       Tin    ppm    ASTM D5185m    > 100    1    2       Vanadium    ppm    ASTM D5185m    > 100    0    0       Vanadium    ppm    ASTM D5185m    > 10    1    2       Vanadium    ppm    ASTM D5185m    > 10    0    0       Vanadium    ppm    ASTM D5185m    > 75    40    41       Yellow Metal    scalar    *Visual    NONE    NONE    NONE       Silicon    ppm    ASTM D5185m    > 20    3    <1       Solicon    ppm    ASTM D5185m    <				~10	-		
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LeadppmASTM D5185m>2594CopperppmASTM D5185m>1002421TinppmASTM D5185m>1012VanadiumppmASTM D5185m>1012White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>754041PotassiumppmASTM D5185m>203<1SiliconppmASTM D5185m>203<1VaterWC Method>.2NEGNEGSilitscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONEAppearancescalar*VisualNORLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m2.2NEGNEGSodiumppmASTM D5185m20020BoronppmASTM D5185m20020BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200				>25	-		
CopperppmASTM D5185m>1002421TinppmASTM D5185m>1012VanadiumppmASTM D5185m>1000White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONESiliconppmASTM D5185m>754041PotassiumppmASTM D5185m>203<1WaterWC Method>.2NEGNEGSilitscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLGdorscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m2.2NEGNEGSodiumppmASTM D5185m400143147BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200					-		
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Yellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>754041PotassiumppmASTM D5185m>203<1WaterWC Method>.2NEGNEGSiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONEMODERSand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200				NONE		-	
SiliconppmASTM D5185m>754041PotassiumppmASTM D5185m>203<1WaterWC Method>.2NEGNEGSiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONEMODERSand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200					-		
PotassiumppmASTM D5185m>203<1							
WaterWC Method>.2NEGNEGSiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONEMODERSand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLSodiumppmASTM D5185m400143147BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200	Silicon	ppm	ASTM D5185m	>75	40	41	
Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONEMODERSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200	Potassium	ppm	ASTM D5185m	>20	3	<1	
Debrisscalar*VisualNONENONE▲ MODERSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BoronppmASTM D5185m20020MolybdenumppmASTM D5185m1200	Water		WC Method	>.2	NEG	NEG	
Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BoronppmASTM D5185m20020BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200	Silt	scalar	*Visual	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BoronppmASTM D5185m20020BariumppmASTM D5185m1200	Debris	scalar	*Visual	NONE	NONE	A MODER	
Odorscalar*VisualNORMLNORMLNORMLEmulsified Waterscalar*Visual>.2NEGNEGSodiumppmASTM D5185m400143147BoronppmASTM D5185m20020BariumppmASTM D5185m20020MolybdenumppmASTM D5185m1200	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water    scalar    *Visual    >.2    NEG    NEG       Sodium    ppm    ASTM D5185m    8    7       Boron    ppm    ASTM D5185m    400    143    147       Barium    ppm    ASTM D5185m    200    2    0       Molybdenum    ppm    ASTM D5185m    12    0    0	Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium    ppm    ASTM D5185m    8    7       Boron    ppm    ASTM D5185m    400    143    147       Barium    ppm    ASTM D5185m    200    2    0       Molybdenum    ppm    ASTM D5185m    12    0    0	Odor	scalar	*Visual	NORML	NORML	NORML	
Boron    ppm    ASTM D5185m    400    143    147       Barium    ppm    ASTM D5185m    200    2    0       Molybdenum    ppm    ASTM D5185m    12    0    0	Emulsified Water	scalar	*Visual	>.2	NEG	NEG	
Boron    ppm    ASTM D5185m    400    143    147       Barium    ppm    ASTM D5185m    200    2    0       Molybdenum    ppm    ASTM D5185m    12    0    0	Sodium	maa	ASTM D5185m		8	7	
Barium    ppm    ASTM D5185m    200    2    0       Molybdenum    ppm    ASTM D5185m    12    0    0				400			
Molybdenum    ppm    ASTM D5185m    12    0			ASTM D5185m	200			
	Molybdenum		ASTM D5185m	12	0	0	
Manganese ppm ASTM D5185m 15 14	Manganese	ppm	ASTM D5185m		15	14	
Magnesium    ppm    ASTM D5185m    12    1    0	Magnesium	ppm		12	1	0	
Calcium ppm ASTM D5185m 150 8 11	Calcium	ppm	ASTM D5185m	150	8	11	
Phosphorus    ppm    ASTM D5185m    1650    1150    1088	Phosphorus	ppm	ASTM D5185m	1650	1150	1088	
Zinc ppm ASTM D5185m 125 26 4	Zinc		ASTM D5185m	125	26	4	
Sulfur    ppm    ASTM D5185m    22500    25371    27833	Sulfur	ppm	ASTM D5185m	22500	25371	27833	
Visc @ 40°C cSt ASTM D445 109 97.4 98.6	N/ 0 4000	cSt	ASTM D445	109	97.4	98.6	



Contact/Location: ROBERT LOCKWOOD - PERGEODE





**PERDUE FARMS - GEORGETOWN** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : PCA0128343 Received : 25 Jun 2024 20621 SAVANAH RD Lab Number : 06220154 Tested : 26 Jun 2024 GEORGETOWN, DE Unique Number : 11098351 Diagnosed : 26 Jun 2024 - Wes Davis US 19947 Test Package : FLEET Contact: ROBERT LOCKWOOD Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Robert.Lockwood@Perdue.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Т: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: ROBERT LOCKWOOD - PERGEODE Page 2 of 2