

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id DT688 Component Rear Differential Fluid GEAR OIL SAE 75W90 (--- GAL)

DIAGNOSIS

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.

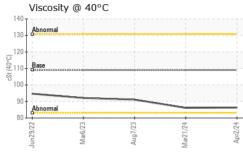
Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121912	PCA0120032	PCA0099990
Sample Date		Client Info		02 Apr 2024	21 Mar 2024	07 Aug 2023
Machine Age	mls	Client Info		230645	178315	0
Oil Age	mls	Client Info		75000	178315	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	120	110	225
Chromium	ppm	ASTM D5185m	>10	<1	<1	1
Nickel	ppm	ASTM D5185m	>10	4	4	8
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	6	6	10
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	258	227	218
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	400 200	258 0	227 0	218 0
Barium	ppm	ASTM D5185m	200	0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	200	0 15	0 15	0
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 12	0 15 1	0 15 1	0 6 2
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12	0 15 1 80	0 15 1 79	0 6 2 74
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12 12 150	0 15 1 80 229	0 15 1 79 217	0 6 2 74 153
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 12 12 12 150 1650	0 15 1 80 229 1460	0 15 1 79 217 1418	0 6 2 74 153 1321
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 ASTM D5185m	200 12 12 150 1650 125	0 15 1 80 229 1460 155	0 15 1 79 217 1418 148	0 6 2 74 153 1321 131 22661 history2
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 ASTM D5185m	200 12 12 150 1650 125 22500 limit/base	0 15 1 80 229 1460 155 26060	0 15 1 79 217 1418 148 25946	0 6 2 74 153 1321 131 22661
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	200 12 12 150 1650 125 22500 limit/base	0 15 1 80 229 1460 155 26060 current	0 15 1 79 217 1418 148 25946 history1	0 6 2 74 153 1321 131 22661 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75	0 15 1 80 229 1460 155 26060 current 53	0 15 1 79 217 1418 148 25946 history1 51	0 6 2 74 153 1321 131 22661 history2 ▲ 101
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75	0 15 1 80 229 1460 155 26060 current 53 2	0 15 1 79 217 1418 148 25946 history1 51 2	0 6 2 74 153 1321 131 22661 history2 ▲ 101 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 <i>limit/base</i> >75	0 15 1 80 229 1460 155 26060 current 53 2 2 2	0 15 1 79 217 1418 148 25946 history1 51 2 3	0 6 2 74 153 1321 131 22661 history2 ▲ 101 <1 1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m	200 12 12 150 1650 125 22500 limit/base >75 >20 limit/base	0 15 1 80 229 1460 155 26060 current 53 2 2 2 2	0 15 1 79 217 1418 148 25946 history1 51 2 3 3 history1	0 6 2 74 153 1321 131 22661 history2 ▲ 101 <1 1 1 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 ypm ypm	ASTM D5185m ASTM D5185m Yisual	200 12 12 150 1650 125 22500 <i>limit/base</i> >75 >20 <i>limit/base</i> NONE	0 15 1 80 229 1460 155 26060 current 53 2 2 2 2 2 current NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 3 history1 MODER NONE NONE	0 6 2 74 153 1321 131 22661
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silit	ppm ppm ppm ppm ppm ppm ppm ppm VTS	ASTM D5185m ASTM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m	200 200 12 12 150 1650 125 22500 limit/base >75 >20 limit/base NONE NONE	0 15 1 80 229 1460 155 26060 current 53 2 2 2 2 current NONE NONE NONE NONE NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 3 history1 MODER NONE	0 6 2 74 153 1321 131 22661 history2 ▲ 101 <1 1 1 1 history2 NONE NONE NONE NONE NONE NONE
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 VTS	ASTM D5185m ASTM D5185m Yisual	200 200 12 12 12 150 1650 125 22500 limit/base >75 	0 15 1 80 229 1460 155 26060 current 53 2 2 2 2 2 current NONE NONE NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 3 history1 MODER NONE NONE	0 6 2 74 153 1321 131 22661
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 ypm ypm	ASTM D5185m ASTM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m XM D5185m	200 200 12 12 12 150 1650 125 22500 limit/base >75 >20 limit/base NONE NONE NONE NONE	0 15 1 80 229 1460 155 26060 current 53 2 2 2 current NONE NONE NONE NONE NONE LIGHT NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 3 history1 MODER NONE NONE NONE NONE	0 6 2 74 153 1321 131 22661 history2 ▲ 101 <1 1 1 history2 NONE NONE NONE NONE NONE NONE
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 ypm ypm	ASTM D5185m ASTM D5185m Yisual *Visual *Visual *Visual	200 200 12 12 12 150 1650 125 22500 limit/base >75 >20 limit/base NONE NONE NONE NONE NONE NONE	0 15 1 80 229 1460 155 26060 <i>current</i> 53 2 2 2 2 <i>current</i> NONE NONE NONE NONE NONE LIGHT	0 15 1 79 217 1418 148 25946 history1 51 2 3 history1 MODER NONE NONE NONE NONE NONE NONE	0 6 2 74 153 1321 131 22661 131 22661 history2 101 <1 1 1 history2 NONE NONE NONE NONE NONE NONE NONE
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 ypm ypm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual	200 200 12 12 12 150 1650 125 22500 limit/base >75 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	0 15 1 80 229 1460 155 26060 current 53 2 2 2 current NONE NONE NONE NONE NONE LIGHT NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 51 2 3 3 history1 MODER NONE NONE NONE NONE NONE NONE NONE	0 6 2 74 153 1321 131 22661 Nistory2 101 <1 1 1 NONE NONE NONE NONE NONE NONE NONE
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 ypm ypm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 200 12 12 12 150 1650 125 22500 imit/base >75 22500 imit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 15 1 80 229 1460 155 26060 current 53 2 2 2 2 2 NONE NONE NONE NONE LIGHT NONE LIGHT NONE NONE	0 15 1 79 217 1418 148 25946 history1 51 2 3 history1 MODER NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 6 2 74 153 1321 131 22661 131 22661 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 200 12 12 12 150 1650 125 22500 <i>limit/base</i> >75 <i>limit/base</i> >20 <i>limit/base</i> >75 <i>limit/base</i> >20 <i>limit/base</i> NONE NONE NONE NONE NONE NONE NONE NON	0 15 1 80 229 1460 155 26060 Current 53 2 2 2 Current NONE NORE	0 15 1 79 217 1418 148 25946 history1 51 2 3 history1 MODER NONE NORML NORML NEG NEG	0 6 2 74 153 1321 131 22661



OIL ANALYSIS REPORT



	FLUID PROP	ERTIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	109	86.3	86.1	91.1
	SAMPLE IMA	GES	method	limit/base	current	history1	history2
24	Color				no image	no image	no image
Mar21/24 Apr2/24	Bottom				no image	no image	no image
	GRAPHS						
	Ferrous Alloys	als	Mar21/24	Apri2/24			
	Viscosity @ 40°C	Aug7/23	Mar21/24	Apr2/24			
Laboratory Sample No. Lab Number Unique Number Test Package		Recei Teste Diagn	ved : 08 d : 09 iosed : 09	Apr 2024 Apr 2024 Apr 2024 - W	les Davis	Contact: GEOR	IDENCE BLVD COLUMBIA, SC US 29210

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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

Certificate L2367

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