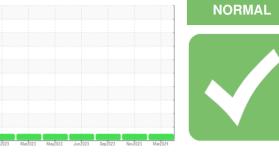


OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id **CATERPILLAR D6 10034 (S/N KEW01121)** Component **Right Final Drive**

Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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

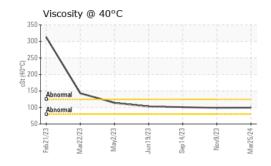
The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0913209	WC0862946	WC0831345
Sample Date		Client Info		25 Mar 2024	09 Nov 2023	14 Sep 2023
Machine Age	hrs	Client Info		3781	3109	2835
Oil Age	hrs	Client Info		682	274	683
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	19	8	22
Chromium	ppm	ASTM D5185m	>10	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	<1	0	4
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	0	0	<1
Tin	ppm	ASTM D5185m	>8	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		165	179	160
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		165 0	179 0	160 0
Barium	ppm	ASTM D5185m		0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 0	0 0	0
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1	0 0 <1	0 0 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0	0 0 <1 <1	0 0 <1 2
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0 22	0 0 <1 <1 42	0 0 <1 2 85
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 0 <1 0 22 333	0 0 <1 <1 42 346	0 0 <1 2 85 351
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	limit/base	0 0 <1 0 22 333 0	0 0 <1 <1 42 346 0	0 0 <1 2 85 351 6
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		0 0 <1 0 22 333 0 2178	0 0 <1 <1 42 346 0 1909	0 0 <1 2 85 351 6 2239
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0 22 333 0 2178 current	0 0 <1 <1 42 346 0 1909 history1	0 0 <1 2 85 351 6 2239 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>400	0 0 <1 0 22 333 0 2178 current 16	0 0 <1 <1 42 346 0 1909 history1 5	0 0 <1 2 85 351 6 2239 history2 10
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>400	0 0 <1 0 22 333 0 2178 current 16 <1	0 0 <1 <1 42 346 0 1909 history1 5 0	0 0 <1 2 85 351 6 2239 history2 10 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20	0 0 <1 0 22 333 0 2178 current 16 <1 0	0 0 <1 <1 42 346 0 1909 history1 5 0 0	0 0 <1 2 85 351 6 2239 history2 10 2 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20 limit/base	0 0 <1 0 22 333 0 2178 current 16 <1 0 current	0 0 <1 <1 42 346 0 1909 history1 5 0 0 0	0 0 <1 2 85 351 6 2239 history2 10 2 <1 <1 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20 limit/base NONE	0 0 <1 0 22 333 0 2178 current 16 <1 0 current NONE	0 0 <1 <1 42 346 0 1909 history1 5 0 0 0 history1 NONE	0 0 <1 2 85 351 6 2239 history2 10 2 <1 2 <1 history2 NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	>400 >20 limit/base NONE NONE	0 0 (21 333 0 2178 <u>current</u> 16 <1 0 <u>current</u> NONE NONE	0 0 (-1) (-1) (-1) (-1) (-1) (-1) (-1) (-1)	0 0 (-1) 2 85 351 6 2239 history2 10 2 -10 2 -1 VONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	>400 >20 limit/base NONE NONE NONE	0 0 (21 333 0 2178 <u>current</u> 16 <1 0 <u>current</u> 0 <u>current</u> NONE NONE NONE	0 0 (-1) (-1) (-1) (-1) (-1) (-1) (-1) (-1)	0 0 (-1) 2 85 351 6 2239 history2 10 2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE	0 0 <1 0 22 333 0 2178 <u>current</u> 16 <1 0 <u>current</u> NONE NONE NONE NONE NONE	0 0 (-1) (-1) (-1) (-1) (-1) (-1) (-1) (-1)	0 0 (-1) 2 85 351 6 2239 history2 10 2 -10 2 -1 VONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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 *Visual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	0 0 <1 0 22 333 0 2178 current 16 <1 0 current NONE NONE NONE NONE NONE NONE	0 0 (-1) (-1) (-1) (-1) (-1) (-1) (-1) (-1)	0 0 (1 2 85 351 6 2239 history2 10 2 <1 10 2 <1 NONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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 *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	0 0 <1 0 22 333 0 2178 current 16 <1 0 current NONE NONE NONE NONE NONE NONE NONE NON	0 0 41 42 346 0 1909 history1 5 0 0 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	0 0 (-1 2 85 351 6 2239 history2 10 2 -1 10 2 -1 NONE NONE NONE NONE NONE NONE NONE NON
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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	>400 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	0 0 2178 2178 0 2178 0 2178 0 2178 0 2178 0 2178 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 (-1) (-1) (-1) (-1) (-1) (-1) (-1) (-1)	0 0 (-1) 2 85 351 6 2239 history2 10 2 -1 10 2 -1 NONE NONE NONE NONE NONE NONE NONE NON
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White 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 *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE NORML NORML	0 0 (1 22 333 0 2178 current 16 <1 0 current 16 <1 0 0 current NONE NONE NONE NONE NONE NONE NONE NON	0 0 (<1) (<1) (42) 346 0 1909 history1 5 0 0 0 history1 5 0 0 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	0 0 (-1) 2 85 351 6 2239 history2 10 2 2 -10 2 -1 NONE NONE NONE NONE NONE NONE NONE NON

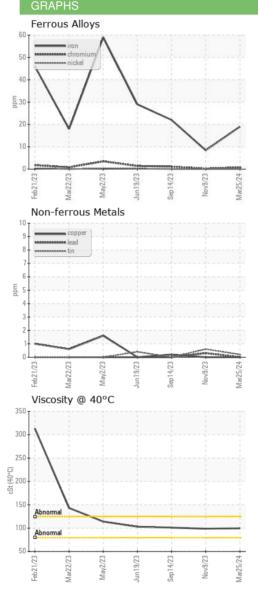
Report Id: TRANEW [WUSCAR] 06137765 (Generated: 04/05/2024 19:40:13) Rev: 1

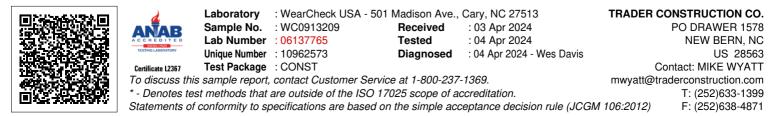


OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		99.5	98.7	101
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image





Report Id: TRANEW [WUSCAR] 06137765 (Generated: 04/05/2024 19:40:13) Rev: 1

Contact/Location: MIKE WYATT - TRANEW

Page 2 of 2