

OIL ANALYSIS REPORT



Machine Id

3092 Component Diesel Engine Fluid CHEVRON DELO 400 SAE 10W30 (--- 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 oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0540379	WC0540403	
Sample Date		Client Info		09 May 2024	10 Dec 2023	
Machine Age	mls	Client Info		293072	255560	
Oil Age	mls	Client Info		47864	38212	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	18	13	
Chromium	ppm	ASTM D5185m	>20	0	0	
Nickel	ppm	ASTM D5185m	>4	2	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	6	6	
Lead	ppm	ASTM D5185m	>40	0	<1	
Copper	ppm	ASTM D5185m	>330	9	2	
Tin	ppm	ASTM D5185m	>15	0	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 24	history1 8	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	24	8	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	24 0	8 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	24 0 5	8 0 10	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	24 0 5 <1	8 0 10 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	24 0 5 <1 702	8 0 10 0 277	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		24 0 5 <1 702 1632	8 0 10 0 277 2135	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260	24 0 5 <1 702 1632 776	8 0 10 277 2135 800	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260	24 0 5 <1 702 1632 776 892	8 0 10 0 277 2135 800 1114	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1260 1400	24 0 5 <1 702 1632 776 892 3390	8 0 10 277 2135 800 1114 3152	
Boron 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	1260 1400 limit/base	24 0 5 <1 702 1632 776 892 3390 current	8 0 10 277 2135 800 1114 3152 history1	 history2
Boron 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 ASTM D5185m method	1260 1400 limit/base >25	24 0 5 <1 702 1632 776 892 3390 current 8	8 0 10 277 2135 800 1114 3152 history1 8	 history2
Boron 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 ASTM D5185m ASTM D5185m ASTM D5185m	1260 1400 limit/base >25	24 0 5 <1 702 1632 776 892 3390 current 8 3	8 0 10 277 2135 800 1114 3152 history1 8 1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1260 1400 limit/base >25 >20	24 0 5 <1 702 1632 776 892 3390 current 8 3 3	8 0 10 0 277 2135 800 1114 3152 history1 8 1 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1260 1400 limit/base >25 >20 limit/base >3	24 0 5 <1 702 1632 776 892 3390 current 8 3 3 3 3 current	8 0 10 277 2135 800 1114 3152 history1 8 1 2 2 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	1260 1400 limit/base >25 >20 limit/base >3	24 0 5 <1 702 1632 776 892 3390 current 8 3 3 3 0 current 0.6	8 0 10 277 2135 800 1114 3152 history1 8 1 2 history1 0.6	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1260 1400 1400 225 >225 >20 Iimit/base >3 >20	24 0 5 <1 702 1632 776 892 3390 current 8 3 3 current 0.6 10.3	8 0 10 0 277 2135 800 1114 3152 history1 8 1 2 history1 0.6 10.2	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1260 1400 1400 225 >20 1imit/base >20 1imit/base >3 >20 >3 >20	24 0 5 <1 702 1632 776 892 3390 <u>current</u> 8 3 3 3 <u>current</u> 0.6 10.3 24.8	8 0 10 277 2135 800 1114 3152 history1 8 1 2 history1 0.6 10.2 25.6	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	1260 1400 225 >20 imit/base >3 >20 >30 >30 imit/base	24 0 5 <1 702 1632 776 892 3390 current 8 3 3 3 current 0.6 10.3 24.8 current	8 0 10 0 277 2135 800 1114 3152 history1 8 1 2 history1 0.6 10.2 25.6 history1	 history2 history2 history2 history2



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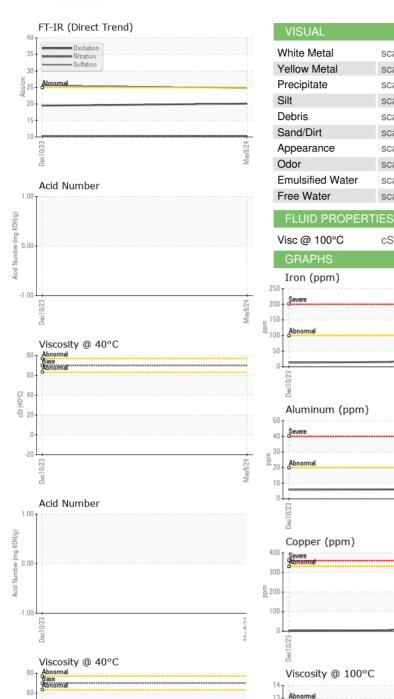
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OIL ANALYSIS REPORT

scalar

*Visual

NONE





NONE

NONE

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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Laboratory

Sample No.

Lab Number

Unique Number : 11074650

Dec10/23

: 06207189

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

Report Id: LTIVAN [WUSCAR] 06207189 (Generated: 06/15/2024 08:52:04) Rev: 1

Certificate 12367

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