

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **3778C** Component **Natural Gas Engine** Fluid

CHEVRON DELO 400 NG (46 GAL)

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.

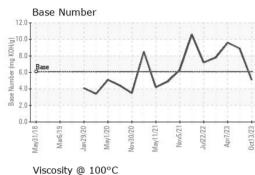
Fluid Condition

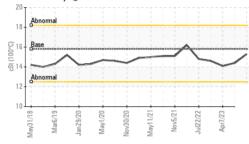
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI		method	limit/base	current	history1	history2
Sample Number		Client Info	innin base	GFL0080515	GFL0066842	GFL0074437
Sample Date		Client Info		13 Oct 2023	20 Jul 2023	07 Apr 2023
Machine Age	hrs	Client Info		10464	10464	10464
Oil Age	hrs	Client Info		10464	10464	10464
Oil Changed	1110	Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Glycol		WC Method	IIIIII/Dase	current	0.0	0.0
WEAR METAL	0	method	limit/base	ourropt		
				current	history1	history2
Iron	ppm	ASTM D5185m	>50	13	10	11
Chromium	ppm	ASTM D5185m	>4	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm		>9	0	1	1
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm	ASTM D5185m	>35	<1	<1	2
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium Cadmium	ppm	ASTM D5185m ASTM D5185m		0	0	0
	ppm			0		-
ADDITIVES			limit/base		history1	history2
ADDITIVEO		method	IIIIII/Dase	Current	HISTOLA	THStory2
Boron	ppm	ASTM D5185m	IIIII/Dase	9	27	24
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	IIIII/Dase	9 2	27 0	24 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		9 2 54	27 0 55	24 0 44
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		9 2 54 <1	27 0 55 <1	24 0 44 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		9 2 54 <1 533	27 0 55 <1 787	24 0 44 1 714
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		9 2 54 <1 533 1496	27 0 55 <1 787 1425	24 0 44 1 714 1106
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 ASTM D5185m	800	9 2 54 <1 533 1496 691	27 0 55 <1 787 1425 1017	24 0 44 1 714 1106 632
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	800	9 2 54 <1 533 1496 691 922	27 0 55 <1 787 1425 1017 1232	24 0 44 1 714 1106 632 770
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	800	9 2 54 <1 533 1496 691	27 0 55 <1 787 1425 1017	24 0 44 1 714 1106 632
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	800	9 2 54 <1 533 1496 691 922	27 0 55 <1 787 1425 1017 1232 3666 history1	24 0 44 1 714 1106 632 770
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 ASTM D5185m	800 880 limit/base	9 2 54 <1 533 1496 691 922 2346	27 0 55 <1 787 1425 1017 1232 3666	24 0 44 1 714 1106 632 770 2035 history2 9
Boron 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 ASTM D5185m	800 880 limit/base >+100	9 2 54 <1 533 1496 691 922 2346 current	27 0 55 <1 787 1425 1017 1232 3666 history1	24 0 44 1 714 1106 632 770 2035 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm 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 method ASTM D5185m	800 880 limit/base >+100	9 2 54 <1 533 1496 691 922 2346 current	27 0 55 <1 787 1425 1017 1232 3666 history1 5	24 0 44 1 714 1106 632 770 2035 history2 9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	800 880 limit/base >+100	9 2 54 <1 533 1496 691 922 2346 current 4 4	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10	24 0 44 1 714 1106 632 770 2035 history2 9 26
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	800 880 limit/base >+100 >20	9 2 54 <1 533 1496 691 922 2346 current 4 4 4 14	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41	24 0 44 1 714 1106 632 770 2035 history2 9 26 ↓ 104
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	800 880 limit/base >+100 >20 limit/base	9 2 54 <1 533 1496 691 922 2346 current 4 4 14 24	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41 history1	24 0 44 1 714 1106 632 770 2035 history2 9 26 ▲ 104 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	800 880 limit/base >+100 >20 limit/base >20	9 2 54 <1 533 1496 691 922 2346 <u>current</u> 4 4 14 14 0	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41 41 history1 0	24 0 44 1 714 1106 632 770 2035 history2 9 26 ▲ 104 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	800 880 limit/base >+100 >20 limit/base >20	9 2 54 <1 533 1496 691 922 2346 <i>current</i> 4 4 14 14 <i>current</i> 0 10.6	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41 5 10 41 0 7.1	24 0 44 1 714 1106 632 770 2035 history2 9 26 ↓ 104 history2 0.1 7.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	800 880 880 >+100 >20 Iimit/base >20 >20 >30 Iimit/base	9 2 54 <1 533 1496 691 922 2346 <u>current</u> 4 4 14 14 0 10.6 20.9	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41 5 10 41 0 7.1 18.6	24 0 44 1 714 1106 632 770 2035 history2 9 26 ▲ 104 history2 0.1 7.6 20.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	800 880 200 200 1imit/base >20 1imit/base >30 1imit/base >25	9 2 54 <1 533 1496 691 922 2346 <i>current</i> 4 4 4 14 14 <i>current</i> 0 10.6 20.9 <i>current</i>	27 0 55 <1 787 1425 1017 1232 3666 history1 5 10 41 5 10 41 0 7.1 18.6 history1	24 0 44 1 714 1106 632 770 2035 history2 9 26 ▲ 104 history2 0.1 7.6 20.1 history2

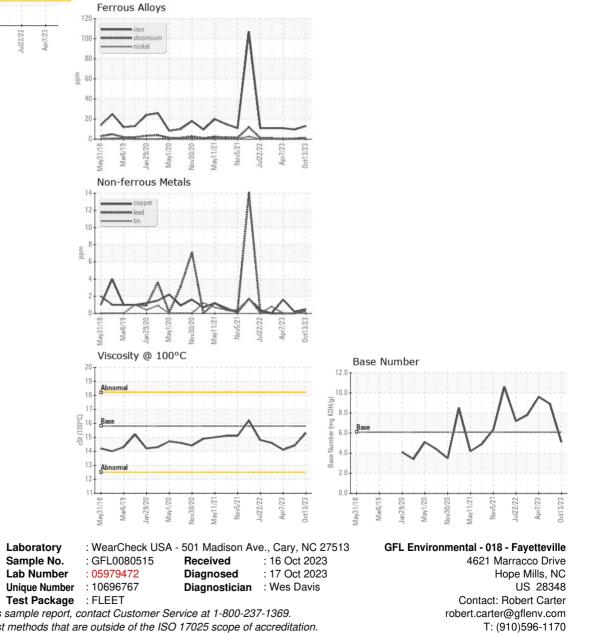


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.8	15.3	14.4	14.1
GRAPHS						





Certificate L2367 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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: Robert Carter

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