

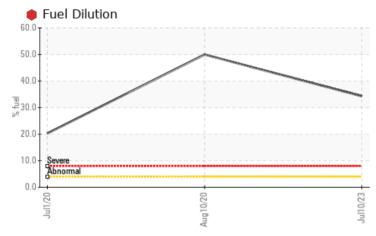
PROBLEM SUMMARY

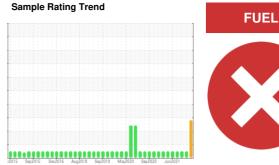
Machin MIKE NADICKSBERND (S/N 8VA-123985) Component

Port Genset Fluid

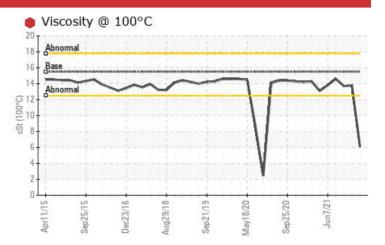
CHEVRON DELO 710 LS (5 GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	NORMAL	NORMAL		
Fuel	%	ASTM D3524	>4.0	934.3	<1.0	<1.0		
Visc @ 100°C	cSt	ASTM D445	15.5	6.1	13.8	13.7		

Customer Id: AMELOU Sample No.: MW0057396 Lab Number: 05899268 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Resample			?	We recommend an early resample to monitor this condition.			
Check Fuel/injector System			?	We advise that you check the fuel injection system.			

HISTORICAL DIAGNOSIS



01 Mar 2022 Diag: Jonathan Hester

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



view report

04 Jan 2022 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

30 Nov 2021 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report







OIL ANALYSIS REPORT

Machine Id MIKE NADICKSBERND (S/N 8VA-123985) Component

Port Genset Fluid CHEVRON DELO 710 LS (5 GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

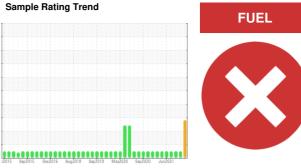
All component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



		72015 Sep20	15 Dec2016 Aug2018	Sep2019 May2020 Sep2020 .	La construction of the	Istan a
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		MW0057396	MWM689609	MWM689688
Sample Date		Client Info		10 Jul 2023	01 Mar 2022	04 Jan 2022
Machine Age	hrs	Client Info		23930	18203	17819
Oil Age	hrs	Client Info		166	435	432
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				SEVERE	NORMAL	NORMAL
CONTAMINATION	J	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>25	5	12	10
Chromium	ppm	ASTM D5185m	>5	<1	1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	3	2
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ABBIIIVE0		methou	iiiiii/base	Current	TIISTOLA I	motoryz
Boron	ppm	ASTM D5185m	IIIII/Dase	35	43	38
	ppm ppm		IIIII/base			
Boron		ASTM D5185m		35	43	38
Boron Barium	ppm	ASTM D5185m ASTM D5185m		35 0	43 0	38 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		35 0 34	43 0 47	38 0 42
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		35 0 34 <1	43 0 47 <1	38 0 42 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		35 0 34 <1 11	43 0 47 <1 26	38 0 42 <1 18
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		35 0 34 <1 11 2581	43 0 47 <1 26 3554	38 0 42 <1 18 3535
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		35 0 34 <1 11 2581 7	43 0 47 <1 26 3554 26	38 0 42 <1 18 3535 15
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	limit/base	35 0 34 <1 11 2581 7 16	43 0 47 <1 26 3554 26 30	38 0 42 <1 18 3535 15 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		35 0 34 <1 11 2581 7 16 1912	43 0 47 <1 26 3554 26 30 1904	38 0 42 <1 18 3535 15 8 1936
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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	limit/base	35 0 34 <1 11 2581 7 16 1912 current	43 0 47 <1 26 3554 26 30 1904 history1	38 0 42 <1 18 3535 15 8 1936 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 ASTM D5185m	limit/base	35 0 34 <1 11 2581 7 16 1912 <u>Current</u> 2 1 2	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1
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 method ASTM D5185m	limit/base >25 >20	35 0 34 <1 11 2581 7 16 1912 current 2 1	43 0 47 <1 26 3554 26 30 1904 history1 4 0	38 0 42 <1 18 3535 15 8 1936 history2 3 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	35 0 34 <1 11 2581 7 16 1912 <u>Current</u> 2 1 2	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >4.0	35 0 34 <1 11 2581 7 16 1912 current 2 1 2 1 2 34.3	43 0 47 <1 26 3554 26 30 1904 <u>history1</u> 4 0 2 2 <1.0	38 0 42 <1 18 3535 15 8 1936 history2 3 1 4 <1 <1.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >4.0 limit/base	35 0 34 <1 11 2581 7 16 1912 current 2 1 2 2 1 2 34.3 current	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2 <1.0 history1	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1 <1 <1 <1.0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i % i	ASTM D5185m ASTM D5185m	limit/base >25 >20 >4.0 limit/base	35 0 34 <1 11 2581 7 16 1912 current 2 1 2 34.3 current 0.1	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2 <1.0 history1 0.2	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1 <1 <1 <1.0 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 method *ASTM D7844	limit/base >25 >20 >4.0 limit/base	35 0 34 <1 11 2581 7 16 1912 current 2 1 2 34.3 current 0.1 7.2	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2 <1.0 kistory1 0.2 9.2	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1 <1 <1 <1.0 history2 0.2 9.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >20 >4.0 limit/base >20 >30	35 0 34 <1 11 2581 7 16 1912 Current 2 1 2 34.3 Current 0.1 7.2 18.0 Current	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2 <1.0 history1 0.2 9.2 17 history1	38 0 42 <1 18 3535 15 8 1936 history2 3 1 3 1 <1 <1 <1 <1.0 history2 0.2 9.3 17.2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >4.0 limit/base >20 >4.30	35 0 34 <1 11 2581 7 16 1912 current 2 1 2 34.3 current 0.1 7.2 18.0	43 0 47 <1 26 3554 26 30 1904 history1 4 0 2 <1.0 history1 0.2 9.2 17	38 0 42 <1 18 3535 15 8 1936 history2 3 1 <1 <1 <1 <1 <10 history2 0.2 9.3 17.2

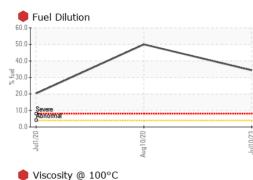


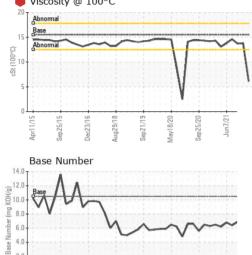
2.0

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Apr11/15 Sen25/15

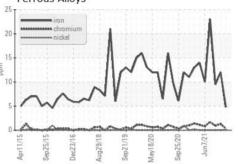
OIL ANALYSIS REPORT

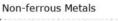




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPER1	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	6.1	13.8	13.7
GRAPHS						

Ferrous Alloys





lead

Jun7/21

1av18/20

PD75/70

2!

Apr11/15

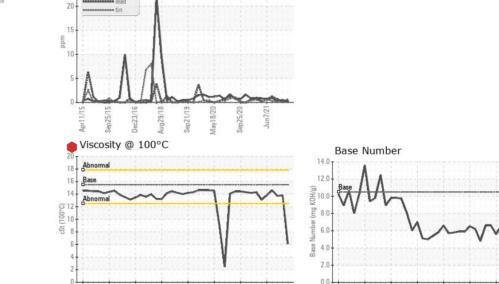
Sep25/15

: MW0057396

: 05899268

Dec23/16

Aun79/1



Jun7/21

: 14 Jul 2023

: 17 Jul 2023

Apr11/15 Sep25/15

Dec23/16 Aua29/18

Unique Number : 10560624 Diagnostician : Wes Davis Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel) Contact: RONALD SCHNEIDER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ronald.schneider@bargeacbl.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: (812)288-1644 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Sen 21/19

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received

Diagnosed

Mav18/20 Sep25/20

Laboratory

Sample No.

Lab Number

Contact/Location: RONALD SCHNEIDER - AMELOU

Aav18/20 Sep25/20

AMERICAN COMMERCIAL LINES

JEFFERSONVILLE, IN

PO BOX 610, 1701 E. MARKET STREET

Sep21/19

US 47130

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