

## **OIL ANALYSIS REPORT**

Sample Rating Trend





Component Port Main Engine Fluid CHEVRON 15W40 (--- 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 INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		OF0000590		
Sample Date		Client Info		12 Oct 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		250		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	7		
Chromium	ppm	ASTM D5185(m)	>8	<1		
Nickel	ppm	ASTM D5185(m)	>2	0		
Titanium	ppm	ASTM D5185(m)	>3	0		
Silver	ppm	ASTM D5185(m)	>2	<1		
Aluminum	ppm	ASTM D5185(m)	>15	3		
Lead	ppm	ASTM D5185(m)	>18	<1		
Copper	ppm	ASTM D5185(m)	>80	1		
Tin	ppm	ASTM D5185(m)	>14	<1		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		272		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		100		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)		651		
Calcium	ppm	ASTM D5185(m)		1483		
Phosphorus	ppm	ASTM D5185(m)		686		
Zinc	ppm	ASTM D5185(m)		794		
Sulfur	ppm	ASTM D5185(m)		2145		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	8		
Sodium	ppm	ASTM D5185(m)	>50	13		
Potassium	ppm	ASTM D5185(m)	>20	2		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0		
Nitration	Abs/cm	ASTM D7624*	>20	6.9		
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3		

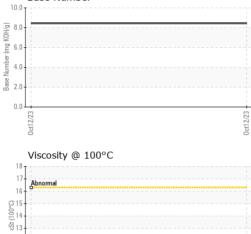


12 Abnormal 11-10 0ct12/23

# **OIL ANALYSIS REPORT**

FLUID DEGRADATION

Base Number



Oxidation    Abs/Im    ABS/Im    ASTM D7416*    2-25    16.7				method		e cui		
VISUAL    method    lintebase    current    History1    history2      White Metal    scalar    Visual*    NONE        Yellow Metal    scalar    Visual*    NONE    NONE       Yellow Metal    scalar    Visual*    NONE    NONE       Sitt    scalar    Visual*    NONE    NONE       Debris    scalar    Visual*    NONE    NONE					>25			
White Metal scalar Visual* NONE NONE		Base Number (BN)	mg KOH/g	ASTM D2896*		8.44		
Valiow Metal    gecalar    Visual*    NONE    VLTE        Precipitate    scalar    Visual*    NONE    NONE    NONE        Sit    scalar    Visual*    NONE    NONE    NONE        Debris    scalar    Visual*    NONE    NONE    NONE        Appearance    scalar    Visual*    NORML    NORML    NORML        Emulsified Wate    scalar    Visual*    NORML    NORML    NORML        Field DPROPERTIES    method    imitbase    current    history1    history2      Muminum (ppm)           Aluminum (ppm)           Mage            Mage            GRAPHS </th <th></th> <th>VISUAL</th> <th></th> <th>method</th> <th>limit/base</th> <th>e cur</th> <th>rent his</th> <th>tory1 history2</th>		VISUAL		method	limit/base	e cur	rent his	tory1 history2
Valiow Metal    gecalar    Visual*    NONE    VLTE        Precipitate    scalar    Visual*    NONE    NONE    NONE        Sit    scalar    Visual*    NONE    NONE    NONE        Debris    scalar    Visual*    NONE    NONE    NONE        Appearance    scalar    Visual*    NORML    NORML    NORML        Emulsified Wate    scalar    Visual*    NORML    NORML    NORML        Field DPROPERTIES    method    imitbase    current    history1    history2      Muminum (ppm)           Aluminum (ppm)           Mage            Mage            GRAPHS </td <td></td> <td>White Metal</td> <td>scalar</td> <td>Visual*</td> <td>NONE</td> <td>NON</td> <td>F</td> <td></td>		White Metal	scalar	Visual*	NONE	NON	F	
Precipitate scalar Visual* NONE NONE    Sitt scalar Visual* NONE NONE  NONE    Sitt scalar Visual* NONE  NONE  NONE    Sand/Dirit scalar Visual* NONE  NONE  NONE    Odor scalar Visual* NONE  NONE    Odor scalar Visual* NONE  NONE    Codor scalar Visual* NONE  NONE     Codor scalar Visual* NONE  NONE     Codor scalar Visual* NONE  NONE      Codor scalar Visual* NORML  NORML     Codor scalar Visual* NORML  NORML  NORML     Codor scalar Visual* NORML  NORML  NORML     Codor scalar Visual* NORML  NORML  Norm    Codor scalar Visual* NORML  NORML  Norm     Codor scalar Visual* NORML  Norm    Codor scalar Visual* NORML  Norm    Codor scalar Visual* NORML  Norm    Codor scalar Visual* NORML  Norm    Codor scalar Visual* NORML     Codor scalar Visual*    Codor scalar Visual*       Codor scalar Visual*								
Site scalar Visual* NONE NONE	23							
Debris scalar Visual* NONE NONE    Sand/Dirt scalar Visual* NONE  NONE  NONE  NONE    Coperance  Scalar Visual* NONE  NONE  NONE  NONE     Coperance  FLUID PROPERTIES  nethod  Imitbase  current  NEG    FLUID PROPERTIES  nethod  Imitbase  current  NEG    FLUID PROPERTIES  nethod  Imitbase  current  Neg    Coper  Scalar Visual*  NORML  NORML    FE  Visc@100°C  cSt  ASIM0723pe  12.2    Grad	0ct12/							
SandDirt scalar Visual* NONE NORE	C							
Appearance scalar Visual* NORML NORML NORML NORML								
Odor      scalar      Visual*      NORML						-		
Emulsified Water scalar Visual* >0.1 NEG Free Water scalar Visual* NEG Fullip PROPERTIES method limitbase current history1 history2 Visc @ 100°C Cest ASTU0729(m) 12.2 GRAPHS Ton (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Copper (ppm) Silicon (ppm) Copper (ppm) Silicon								
Free Water scalar Visual' NEG FLUID PROPERTIES method imitbase current history1 history2 Visc @ 100°C cSt ASND725(m) 12.2 GRAPHS Tron (ppm) Aluminum (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Viscosity @ 100°C								
FLUID PROPERTIES    method    limit/base    current    History1    history1    history2      Visc @ 100°C    cSt    ASTMD72%(m)    12.2								
Visc @ 100°C cSt ASTMD728/m) 12.2 GRAPHS From (ppm) 4 4 4 4 4 4 4 4 4 4 4 4 4			· · ·		limit/boog		ropt bio	tonut biotomu <sup>0</sup>
Copper (ppm) Copper (ppm) Co					limit/base		rent nis	tory i history2
Laboratory :: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Pot Hardy, Barlington, ON L7L 5H9 James Walkus Fishing Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Co Lto Sample No. :: OF0000590 Received :: 24 Oct 2023 Co Lto Sample No. :: OF000059	12/23	-	cSt	ASTM D7279(m)		12.2		
Aluminum (ppm) Aluminum (ppm) Copper (ppm)	000	GRAPHS						
Aluminum (ppm) Aluminum (ppm) Copper (ppm)							ppm)	
Aluminum (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm) Copper (ppm) Viscosity @ 100°C Uscosity @ 100°C Uscosity @ 100°C Uscosity @ 100°C Uscosity @ 100°C Uscosity @ 100°C Uscosity @ 2000590 Received :: 24 Oct 2023 Sample No. Laboratory Sample No. Labor		Severe				Severe		
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Copper (ppm) Copper (ppm) Co						15 Severe		
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Copper (ppm) Copper (ppm) Co		10-				1		
Copper (ppm)		04			23			
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Viscosity @ 100°C Viscosity @ 1					0		(ppm)	
Viscosity @ 100°C Viscosity @ 1							(ppin)	
Viscosity @ 100°C Viscosity @ 1		150 - Severe				30 - Severe		
Viscosity @ 100°C Viscosity @ 1	E a a	Abnormal			E E	20 - Abnormal		
Viscosity @ 100°C Viscosity @ 1		Ψ				10		
Viscosity @ 100°C Viscosity @ 1						0		
Viscosity @ 100°C Viscosity @ 1		112/2.			t12/2:	t12/2;		
Image: Solution of Solution in Solution of Solu					00			
Laboratory    : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9    James Walkus Fishing Co Ltt      So 17025:2017    Sample No.    : OF0000590    Received    : 24 Oct 2023    PO Box 1606,, Gwa sala-Nakwaxda xw Reserv      Lab Number    : 02591289    Diagnosed    : 26 Oct 2023    PO Box 1606, Gwa sala-Nakwaxda xw Reserv      Unique Number    : 5668368    Diagnostician    : Wes Davis    CA VON 2P      Test Package    : MOB 2 ( Additional Tests: Visual )    Contact: Rick Tanah      To discuss this sample report, contact Customer Service at 1-800-268-2131.    Canada and and and and and and and and an							lumber	
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		10			Oct	Oct		
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